

Pacific Missile Range Facility Enhanced Capability

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Final
Environmental Impact Statement

Volume 3 of 3

December 1998

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PACIFIC MISSILE RANGE FACILITY
ENHANCED CAPABILITY
FINAL ENVIRONMENTAL IMPACT STATEMENT

VOLUME 3 OF 3

December 1998

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COVER SHEET

ENVIRONMENTAL IMPACT STATEMENT

PACIFIC MISSILE RANGE FACILITY (PMRF) ENHANCED CAPABILITY

a. Lead Agency: U.S. Department of the Navy

b. Cooperating Agencies: U.S. Army; U.S. Air Force; Department of Energy; Defense Special Weapons Agency; Ballistic Missile Defense Organization

c. Proposed Action: Pacific Missile Range Facility Enhanced Capabilities

d. Affected Jurisdictions: Pacific Missile Range Facility, Kauai County, Hawaii; Makaha Ridge, Kauai County, Hawaii; Kokee Park, Kauai County, Hawaii; Kamokala Magazines, Kauai County, Hawaii; Port Allen, Kauai County, Hawaii; Niihau, Kauai County, Hawaii; Kaula, Honolulu County, Hawaii; Maui Space Surveillance System, Maui County, Hawaii; Kaena Point, Honolulu County, Hawaii; Wheeler Network Segment Control, Honolulu County, Hawaii; DOE Communication Sites, Kauai and Honolulu counties, Hawaii. Both Tern Island, Honolulu County, Hawaii; and Johnston Atoll have been eliminated.

e. Inquiries on this document may be directed to: Ms. Vida Mossman, Pacific Missile Range Facility, P.O. Box 128, Kekaha, Kauai, Hawaii 96752-0128, (808) 335-4740

f. Designation: Final Environmental Impact Statement

g. Abstract: This EIS was prepared in accordance with the National Environmental Policy Act (NEPA), Hawaii Revised Statutes, and Executive Order 12114, Environmental Effects Abroad of Major Federal Actions. Two alternatives—the No-action Alternative and the Proposed Action—were analyzed in this EIS. The No-action Alternative is the continuation of existing range and land-based training and operations; existing research and development test and evaluation; and ongoing base operations and maintenance at PMRF. The Proposed Action, the Preferred Alternative, would result in the continuation of PMRF existing activities and enhancement of the capabilities of PMRF that would allow theater ballistic missile defense (TBMD) testing and training and theater missile defense (TMD) testing. The enhancement would include upgrading existing radar and communications and constructing and operating additional missile launch sites, sensors and instrumentation facilities, and a missile storage magazine. The Proposed Action would also include the revision to an existing restrictive easement for 28 years over State of Hawaii land to allow the U.S. Government to clear a ground hazard area during missile launch activities. The locations where activities would occur are listed in Item d above.

This EIS addresses the potential environmental impacts that would result from activities that would occur under the No-action Alternative and Proposed Action. Environmental resource topics evaluated include air quality, airspace, biological resources, cultural resources, geology and soils, hazardous materials and hazardous waste, health and safety, land use, noise, socioeconomics, transportation, utilities, visual and aesthetics, water resources, the ocean area, and environmental justice. The potential cumulative effects of each of these resources were also evaluated.

In compliance with HRS 343, any new information, clarification, and deletions made between a Draft Environmental Impact Statement (EIS) and a Final EIS are to be highlighted to aid the reader (the public) in finding these changes. To highlight the changes in this EIS, additions have been underlined and deletions have been crossed-out. Minor grammatical and stylistic edits to the original Draft EIS have been made, but are not highlighted. Changes to the Executive Summary have not been highlighted, as it presents the results of this Final EIS.

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9.0 CONSULTATION COMMENTS AND RESPONSES (PUBLIC HEARING)

The Notice of Availability of the Draft Environmental Impact Statement (DEIS) for Enhancing the Capability of the Pacific Missile Range Facility, Kauai, HI to conduct missile defense testing and training activities was published in The Environmental Notice by the Office of Environmental Quality Control on 8 April 1998 and in the Federal Register on 10 April 1998. Agencies, organizations, and individuals who received the Draft EIS or commented during the comment period, which ended 26 May 1998, are listed below. Those agencies, organizations, and individuals commenting on the Draft EIS are denoted by an asterisk next to their names. Copies of letters from agencies, organizations, and individuals, followed by the Navy response, are provided in the end portion of this chapter, in the order in which they were received separated by agency, organization, and individuals. Refer to Table 9-1 for an index of comment letters and their corresponding page number.

FEDERAL GOVERNMENT AGENCIES

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* Hawaii State Senator Mr. Robert Bunda
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* Hawaii State Senator Mr. David Ige
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* Hawaii State Senator Mr. Brian Kanno
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Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

For: Rep. Abercrombie

Submitted by:
Patrick Alvarez

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name _____

Address _____

_____

April 1998

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9-31

STATEMENT OF CONGRESSMAN NEIL ABERCROMBIE
Public Hearing
on the
Pacific Missile Range Facility Enhanced Capability
Environmental Impact Statement

Waimea, Kauai
April 25, 1998

As a member of the House Committee on National Security, I have been carefully considering and examining the proposed action to place additional assets at the Pacific Missile Range Facility (PMRF) and off range locations to support the PMRF activities.

I appreciate the opportunity to comment on the Draft Environmental Impact Statement which will assess the potential impacts associated with enhancing the capabilities of the PMRF. The DEIS provides the opportunity for all concerned citizens to be included in the process.

The PMRF is the cornerstone for Naval testing and training in the

Pacific. The PMRF is essential to the future of military presence in Hawaii. Enhancing the capabilities with the upgrading of instrumentation and technology at the PMRF means maintaining the Navy's presence here well into the 21st century.

I understand that the DEIS will also consider the use of other additional sites, including Niihau, for launch and/or instrumentation. The residents of Niihau have indicated to me their willingness to explore such opportunities provided their environmental, cultural, and economic concerns are fully considered in the implementation of such projects. For me, the support of the residents of Niihau is paramount.

In addition, the expansion of the PMRF will ensure that the United States has a primary theater missile defense testing and training range to help our nation defend against future missile threats. Some nations are currently developing advanced missile systems. As Desert Storm showed us, the need to protect our troops abroad is real.

The proposed action in the DEIS provides an opportunity for Hawaii to continue to be a major player in the national defense of this country as world events begin to center on the Asia-Pacific region. I will review the presentations and comments made during the public hearings and take these matters into consideration as the process moves forward.

P-W-0194

NEIL ABERCROMBIE
1ST DISTRICT, HAWAII
REGIONAL WHIP

COMMITTEE ON
NATIONAL SECURITY
COMMITTEE ON
RESOURCES

9-32

Congress of the United States
House of Representatives
Washington, D.C. 20515

STATEMENT OF CONGRESSMAN NEIL ABERCROMBIE
Public Hearing
on the
Pacific Missile Range Facility Enhanced Capability
Draft Environmental Impact Statement

Honolulu, Hawaii
April 28, 1998

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DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0913
23 OCT 1998

Congressman Neil Abercrombie
House of Representatives
Congress of the United States
300 Ala Moana Boulevard
Room 4104
Honolulu, HI 96850

Dear Congressman Abercrombie:

We appreciate your thoughtful comments submitted as part of our public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement (EIS). We have attempted to include meaningful opportunities for all segments of the public on Kauai and other interested parties to comment on the EIS and the Navy proposal to enhance the capabilities for theater ballistic missile defense testing.

Particular efforts were made to solicit the opinions and input of the people of Niihau concerning aspects of the Navy's proposal that would involve activities on the island.

The residents have been generally supportive of these activities. There has also been a cooperative effort to complete a cultural study of Niihau, and every effort will be made in the future to continue to avoid activities and contacts that would be adverse to the desires of the Niihau residents to preserve their culture, while having a means of livelihood.

The purpose of the EIS, to evaluate enhancements to PMRF to provide the capability to adequately test Navy and other Department of Defense Theater Missile Defense systems, is responsive to congressional direction that PMRF be a primary range to accomplish this testing. We will look forward to a continuing dialogue with your office as our process proceeds.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0130 and P-W-194

United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
600 Harrison Street, Suite 515
San Francisco, California 94107-1376

May 22, 1998

ER 98/0215

Vida Mossman
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Kauai, HI 96752-0128

Dear Ms. Mossman:

The Department of the Interior (Department) has reviewed the Draft Environmental Impact Statement (DEIS) for Pacific Missile Range Enhanced Capability. The Fish and Wildlife Service (Service) responded to the Notice of Intent (NOI) to prepare the DEIS for the proposed project on June 23, 1997. The following comments are provided for your consideration.

BACKGROUND

The proposed action involves the testing of improved missile defense systems against simulated missile attacks. The tests would be conducted within an expansive region of the Pacific Ocean west of the Hawaiian Islands. They would involve limited expansion and use of existing operations on Oahu, Maui, Kauai, and Niihau and construction of new ground-based target missile launchers and instrumentation facilities within two National Wildlife Refuges (NWR): Hawaiian Islands NWR (Tern Island at French Frigate Shoals) and Johnston Atoll NWR (North, East, Sand and Johnston Islands).

Missile testing is anticipated to begin in Fiscal Year 2002. Target missiles used to simulate hostile incoming missiles would be launched at distances of up to 648 nautical miles from either a fixed ground-based facility, a mobile platform based at sea, or an aerial platform. Target missiles would be propelled by solid rocket fuel. In some cases, such as those simulating chemical/biological attacks, the missiles would carry a chemical agent and contain small quantities (35 gallons) of triethyl phosphate.

Both of the NWRs support large numbers of nesting migratory seabirds and provide a foraging habitat for migratory shorebirds and federally listed, threatened green sea turtles (*Chelonia mydas*) and endangered Hawaiian monk seals (*Monachus schauinslandi*). The NWRs also contain rich coral-reef ecosystems that support hundreds of species of reef fishes and thousands of species of macro-invertebrates and algae. In addition, Tern Island is a crucial breeding site for a large percentage of the Hawaiian populations of monk seals and green sea turtles.

We understand a ground-based launch pad and rail launcher with a capacity of 20,000 pounds is proposed for the northeastern corner of Tern Island. The launch pad would be 60 by 90 feet and built on a foundation of dredged coral adjacent to the island. The foundation material would come from dredging near the western end of the island. Dredging would also be needed to facilitate barge delivery of missiles and mooring of a Mobile Aerial Target Support System (MATSS) ship that is approximately 256 feet long.

Instrumentation would be located on the MATSS ship, but if necessary, would be installed on the island at the proposed launch site or at a site near the southwestern end of the island or both. Radar, telemetry, optic, electronic warfare, differential global positioning and other types of systems would comprise the proposed instrumentation facilities.

At Johnston Atoll NWR, a ground-based launch pad with either a rail launcher with a capacity of 20,000 pounds or a vertical launcher is proposed for either North or East Island. If the launch pad is placed on East Island, extensive dredging would be required to create a boat channel. Instrumentation facilities would be constructed at the launch site and on Sand Island. Radar, telemetry, optic, electronic warfare, differential global positioning, and other types of systems would comprise the proposed instrumentation facilities on the island.

Other instrumentation would be located on an MATSS ship. A command and control facility would either be located on the MATSS ship or be placed at a site constructed at the southeastern end of Johnston Island.

GENERAL COMMENTS

The Department believes the DEIS does not adequately assess effects of the proposed action on fish and wildlife resources. In addition, the proposed mitigation measures are not commensurate with the range of potential adverse impacts expected to result from the proposed action. We believe these deficiencies preclude the DEIS from serving as the basis for a meaningful analysis of anticipated project-related impacts to fish and wildlife resources.

The DEIS should be revised to include: 1) complete information on the proposed action, 2) an alternatives analysis and impact assessment based on a commitment to avoid and minimize project-related impacts, and 3) proposed mitigation measures that minimize impacts and compensate for unavoidable impacts.

We are especially concerned about effects of proposed ground-launching of target missiles within the NWRs. The DEIS states: "Targets may be launched either from fixed ground locations or mobile platforms [*i.e.*, ships], or from an aerial platform." According to descriptions in the DEIS, each of the three alternative launch methods could be used to achieve the proposed systems testing and training objectives. Yet, the DEIS does not assess and compare these methods in order to identify the method that would best avoid adverse impacts to fish and wildlife resources.

The DEIS needs to be revised to explain why the mission objectives cannot be achieved by launching target missiles from airplanes, ships, or barges located outside the NWR boundaries in less biologically sensitive areas. The Service believes launching target missiles from either mobile or aerial platforms located outside of NWR boundaries would be less damaging to Federal trust resources. Therefore, the Department recommends unnecessary adverse impacts resulting from ground-launching within NWR boundaries be avoided.

The conclusions reached from the assessment of project-related impacts to biological resources at Tern Island and Johnston Atoll NWRs are inconsistent. The DEIS indicates that adverse impacts would occur at Tern Island but not at Johnston Atoll, even though both areas support massive seabird breeding colonies, sea turtles and monk seals listed under the Endangered Species Act of 1973 (ESA), and rich coral-reef ecosystems.

Because the two NWRs are biologically similar and virtually the same project activities are proposed at each site, the Service believes it reasonable to conclude the adverse impacts expected at Tern Island NWR should also be expected at Johnston Atoll NWR. Therefore, the revised DEIS should state that the same or similar adverse biological impacts are expected at both NWRs.

The DEIS' discussion of potential biological impacts caused by noise associated with rocket launching activities, including both the blast during ignition and any subsequent sonic booms, is insufficient. Because the biological effects of noise are poorly understood and the NWR resources at risk are important, extreme caution should be exercised to avoid unnecessary noise unless scientific evidence proves such caution is unnecessary.

Therefore, the revised DEIS should acknowledge that thousands of nesting seabirds and their young, in addition to the ESA-listed monk seals and sea turtles, could be adversely affected in the immediate vicinity of the launches. In addition to effects on nesting, the revised DEIS should address other adverse effects, such as potential permanent deafness or hearing damage from noise associated with the launches.

The DEIS does not assess the impacts from unplanned, launch-related explosions, either at or directly above launch pads on Tern Island and Johnston Atoll NWRs, on fish and wildlife resources. The biological impacts to wildlife that could result from heat, flames, and toxic gasses released during routine missile launches also need to be addressed.

Since it is virtually impossible to exclude all animals from within designated Ground Hazard Areas (GHAs) and Explosive Safety Quantity Distances (ESQDs) during launches, severe impacts from an unplanned launch explosion, in addition to biological impacts from routine launch emissions, would likely occur.

The revised DEIS should assess these potential impacts to fish and wildlife resources, as well as impacts anticipated resulting from disruption of ongoing Service operations and management activities at the NWRs following an unplanned explosion. Mitigation measures need to be discussed in some detail as well.

The DEIS inadequately assesses the impacts of the proposed action on operations and management at the NWRs as a result of restricting refuge activities for safety reasons associated with the proposed ground-launching of target missiles. Placement of refuge staff within ESQDs during launch periods presents an unacceptable safety risk and essentially precludes the Service from accomplishing our mission for nearly two months out of every year. The revised DEIS needs to acknowledge that implementing ground-launches of target missiles from within the NWRs would disrupt numerous Service monitoring and research projects and adversely affect the Service management of the NWRs. The resulting impacts should also be addressed in the revised DEIS.

The DEIS does not discuss how the military plans to prevent additional introductions of terrestrial and marine alien species spread by military activities, especially at remote island sites within the NWRs. Introduction of alien species is recognized as one of the greatest threats to the biological health of NWRs in the Pacific. Invasive aliens, such as rats, marine organisms carried in ballast water, insects carried in airplanes, and weeds can potentially out-compete and eliminate many native species.

The Department recommends that the revised DEIS address this threat and discuss detailed measures for preventing the spread of alien species on the NWR lands and waters. Measures on how alien species would be controlled and eradicated in the event of accidental introductions need to be included.

The DEIS does not adequately describe the number, size, and configuration of antenna equipment, tracking devices, or other similar structures that would be constructed at Tern Island, Johnston Atoll, Kauai, and Niihau. It is also unclear which structures would be permanent and which would be temporary. These structures, including any supporting guy wires, would inevitably result in migratory bird strikes, causing injury and death to the striking birds, especially those on the NWRs.

The magnitude of such impacts is impossible to analyze without a better description of these structures and references to existing literature on bird strikes and antenna arrays. The revised DEIS needs to fully describe these proposed structures and assess the potential for birds to strike them, including numerical estimates, based on any existing research, of how many birds might be impacted at each site.

SPECIFIC COMMENTS

A. EXECUTIVE SUMMARY

Page es-3; Decisions to Be Made We do not agree with the statement that the proposed action does not conflict with any land use plans, policies or controls. If the proposed action is to include missile-launching activities from within the two NWRs, then the Service would determine whether it would be a compatible use of refuge lands. In addition, the Service's 1986 document, *Environmental Impact Statement and Master Plan for the Hawaiian Islands National Wildlife Refuge*, outlines land use plans and policies for Tern Island with which the missile-launching activities are incompatible. This information needs to be stated in the revised DEIS.

Pg. es-7; Summary of Environmental Impacts (Tern Island) The summary states that "Terrestrial and marine biological resources at Tern Island may experience impacts resulting from the Proposed Action" implying that impacts may not occur. This statement is inconsistent with other affirmative statements in the DEIS that adverse project-related impacts to biological resources at Tern Island are expected (*e.g.*, Table 2-5.3). The revised DEIS should consistently indicate that terrestrial and marine biological resources at Tern Island would be impacted by the Proposed Action.

B. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

Page 2-45; 2.2.3.2 Candidate Sites (Johnston Atoll) The DEIS incorrectly states that the Service "...may develop a refuge..." at Johnston Atoll. The revised DEIS should reflect that Johnston Atoll is currently an NWR administered by the Service.

Page 2-53; 2.3.1.3 Target System Launch Requirements Three alternative methods of launching target missiles (*i.e.*, from land, sea, or air platforms) are presented, but an adequate analysis and comparison of effects of these alternatives on fish and wildlife resources are absent. We recommend the revised DEIS identify what proportions of launches are planned for each of the identified launch methods. This would facilitate a more complete assessment of the impacts associated with the various launch methods. The revised DEIS should also identify the method(s) that is (are) the least damaging to fish and wildlife in order to help clarify the basis for proposing adequate mitigation.

Page 2-108; 2.5 Comparison of Alternatives (Table 2.5-3) This table incorrectly indicates that adverse project-related impacts will occur at Tern Island but not at Johnston Atoll, even though both areas support massive seabird breeding colonies, federally listed sea turtles and monk seals, and rich coral reef ecosystems. Because the two refuges are biologically similar and the project activities are virtually the same, it is reasonable to conclude that if adverse impacts are expected at Tern Island, they can also be expected at Johnston Atoll. The revised DEIS should address the adverse biological impacts that are expected at both sites and incorporate this information into the development of proposed mitigation measures.

C. AFFECTED ENVIRONMENT

Page 3-157; 3.3.1.3.2.1 Vegetation (Tern Island) The DEIS does not identify the presence of algal communities located in the near shore environment of Tern Island. The revised DEIS should note their presence and should also discuss the role that algae plays as a forage food for the ESA-listed threatened Hawaiian green sea turtle.

Page 3-157; 3.3.1.3.2.2 Wildlife (Tern Island) The DEIS states that "the lagoon and marine waters of French Frigate Shoals and those around Tern Island support a variety of fish and other marine species. Many of the fish species are commercially important and are harvested following NMFS and USFWS requirements." This implies that the Service authorizes commercial fishing within the boundaries of the Northwest Hawaiian Islands Refuge system, which is incorrect. This information should be included in the revised DEIS.

The DEIS does not mention that at Tern Island wedge-tailed shearwaters, Bonin petrels, and Tristram's storm petrels nest in sandy burrows, which can easily be crushed or buried by inattentive personnel and construction activities. This potential impact should be addressed in the revised DEIS.

The DEIS does not identify Tern Island as habitat for dense seabird colonies, numbering in the thousands and comprising 18 different species, and as vital habitat for wintering migratory shorebirds. French Frigate Shoals supports an estimated 35 percent of the entire Hawaiian monk seal population and more than 50 percent of all monk seal pups are born there annually. Tern Island is used by hundreds of monk seals for hauling out and pupping.

More than 90 percent of all Hawaiian green sea turtles nest on the small sandy islands at French Frigate Shoals. In 1997, more than 800 potential turtle nests were recorded on Tern Island alone. This information should be included in the revised DEIS.

Page 3-159; 3.3.1.3.2.3 Special Habitats (Tern Island) The coral-reef habitat fronting Tern Island is not described in the DEIS. Healthy coral colonies provide the basic foundation for habitat that supports diverse communities of other highly specialized aquatic organisms. Corals contribute the bulk of the calcareous material that forms and maintains the basic structural framework of the reef. Coral colonies add significantly to the submarine topographic relief in which a large number of fish and invertebrate species find shelter and food.

The institutional significance of coral reefs has been established through their formal designation as "special aquatic sites" (40 CFR Part §230.44/FRv.45n249). Such sites possess special ecological characteristics of productivity, habitat, wildlife protection, and other important and easily disrupted ecological values. The revised DEIS should include the above information.

Page 3-162; 3.3.1.7.2 Health and Safety (Tern Island) The DEIS fails to state that all large diesel fuel storage tanks have been removed from Tern Island. The refuge station primarily uses solar power. The revised DEIS should reflect these facts.

Page 3-164; 3.3.1.9.2 Noise (Tern Island) The DEIS overstates the amount of noise associated with routine refuge operations. The refuge station runs primarily on solar power. All large fuel tanks have been removed and no large generators are used. One small (< 5 kilowatts) generator is used to power the boat hoist and to charge the battery banks during extended bad weather. This generator is operated for fewer than 10 hours per year. This information should be included in the revised DEIS.

Page 3-167; 3.3.2.3.2.2 Wildlife (Johnston Atoll) The DEIS does not mention that the potential missile launch and instrumentation sites on North, East and Sand islands at Johnston Atoll NWR provide invaluable habitats for more than 216,000 breeding pairs of seabirds, representing 14 different species. These islands provide the only nesting habitat for these seabirds in almost 1,000,000 square miles of ocean. Johnston Atoll's reefs support more than 300 species of reef fish, some of which are found nowhere else in the world.

The largest island on the atoll, Johnston Island, will provide a substantial addition to available seabird habitats within the refuge once the chemical munitions incinerator is shut down and the military vacates, which is currently scheduled for approximately 2001. These facts should be included in the revised DEIS.

D. ENVIRONMENTAL CONSEQUENCES AND MITIGATION MEASURES

Page 4-22; 4.1.1.3.2.3 Base Operations and Maintenance (Kauai) The DEIS states that measures, including shielding night lights and surveying beaches prior to amphibious landings, to protect shearwaters and sea turtles, respectively "...could be implemented as appropriate..." The Service supports the implementation of these measures as prerequisite to any expansion of operations and recommends that the revised DEIS state that these measures will be implemented.

Page 4-129; 4.2.1.3.2 Proposed Action (Niihau) The DEIS does not assess potential impacts to ESA-listed, endangered Hawaiian waterbirds on Niihau. Hawaiian ducks (*Anas wyvilliana*), Hawaiian moorhens (*Gallinula chloropus sandvicensis*), Hawaiian coots (*Fulica alai*), and Hawaiian stilts (*Himantopus mexicanus knudseni*) are all potentially present, as mentioned earlier in the DEIS on page 3-135. The potential adverse impacts to these species and their habitats caused by construction and launch-associated noise, emissions, etc. should be discussed and appropriate mitigation measures proposed in the revised DEIS.

Page 4-157; 4.2.2.2.1.1 Operations (Kaula) The DEIS states that the impacts of bombing on Kaula seabird colonies are expected to be minimal and that the seabird populations appear to

be healthy. The Service believes that this statement is unfounded. These colonies are not regularly monitored, and the impacts of bombing have not been studied. The revised DEIS should state that both the impacts of the Kaula bombing and the status of Kaula seabird populations are unknown.

Page 4-164: 4.3.1.3.1 No Action Alternative (Tern Island) The DEIS incorrectly states that Tern Island is visited by 18 seagoing vessels per year. An average of eight to 10 vessels per year visit Tern Island, and these vessels almost invariably anchor several miles offshore. This corrected information should appear in the revised DEIS.

Page 4-164: 4.3.1.3.2. Proposed Action (Tern Island) The DEIS mentions the importance of French Frigate Shoals, including Tern Island, to monk seals and seabirds, but fails to mention the island's importance as nesting, foraging, and basking habitat for sea turtles. Also, the DEIS states that large populations of seabirds nest in the island's vegetated areas, but fails to mention that seabird nesting is by no means limited to vegetated areas. The Department recommends that this information be included in the revised DEIS.

Page 4-165: 4.3.1.3.2.1 Construction (Tern Island) The DEIS does not evaluate impacts that dredging and launch pad construction would have on the flow of seawater around Tern Island and whether this could potentially alter the transport of sand to or from beaches around the island. These beaches are important for sea turtle haul out and nesting, and for monk seal haul out and for pupping purposes. Alteration of the beaches could severely impact these organisms. The revised DEIS include this information.

The DEIS does not quantify the amount of coral reefs that would be destroyed by dredging activities and does not fully describe construction activities associated with the proposed docking facility for the MATSS ship. This information should be included and analyzed in the revised DEIS.

Page 4-165: 4.3.1.3.2.2 Operations (Tern Island) The DEIS does not assess the impacts to wildlife at Tern Island that could result from (a) an unplanned, launch-related explosion at or directly above the proposed launch pad and (b) heat, flames, and toxic gasses released during routine missile launches from the pad. The revised DEIS should include an evaluation of all lethal and sublethal impacts to all species found within the 2,000-ft GHA and 1,250-ft ESQD designated for Tern Island, including those mentioned above.

The DEIS does not sufficiently discuss potential biological impacts caused by noise associated with rocket launching activities, including both the blast during ignition and any subsequent sonic booms. Because the biological effects of noise are poorly understood and the biological resources at risk are so important, the DEIS should make the worst case assumption until scientific evidence proves otherwise. This section should be modified in the revised DEIS to state that thousands of nesting seabirds and chicks, in addition to federally listed monk seals

and turtles in the immediate vicinity of the launch, could potentially suffer permanent deafness or hearing damage.

Page 4-169: 4.3.1.5.2 Geology and Soils (Tern Island) The DEIS identifies the existence of a wood shop at Tern Island. However, this facility was demolished and removed some time ago, and we recommend that reference to this shop be omitted in the revised DEIS.

Page 4-175: 4.3.1.8.2.1 Land Use (Tern Island) The DEIS states that refuge activities within the ESQDs on Tern Island and Johnston Atoll would be restricted for safety reasons for up to 56 days per year. It also states that "During these periods, coordination with Service personnel for access into the area would be made to minimize the impacts to their activities." However, our understanding of the rationale for establishing ESQDs is to prevent people from entering an area where they could be killed or injured by accidental explosions.

Therefore, placement of refuge staff within ESQDs during launch periods presents an unacceptable safety risk and essentially precludes the Service from accomplishing its mission for nearly two months out of every year. Accordingly, we recommend the revised DEIS acknowledge this situation by stating that such a restriction would disrupt numerous Service monitoring and research projects and severely impair the effectiveness of refuge management.

Page 4-185: 4.3.2.3.2.1 Construction (Johnston Atoll) The DEIS states that construction on North or East islands and on Sand Island would require clearing and removal of seabird nesting habitat, but only approximately five acres of land would be adversely impacted. The Service believes that these construction impacts would be very high, since more than 200,000 nesting seabirds, in addition to chicks and eggs, are present on North, East, and Sand Islands and construction activities will crush, injure, or displace large numbers of adult birds, eggs, and chicks. This information should be included in the revised DEIS.

The DEIS does not fully describe the potential biological impacts resulting from the proposed dredging activities. The Service believes that dredging impacts will be significant if East Island is chosen as a launch site since an 80-foot-wide channel running half the length of the atoll would have to be dredged in order to allow vessel access. In addition, destruction of large areas of coral reef due to physical damage and siltation will be inevitable, and the chance of *Ciguatera* outbreaks will be increased. The revised DEIS should include this information and assess these impacts.

Page 4-186: 4.3.2.3.2.2 Operations (Johnston Atoll) The document does not provide an assessment of the impacts to fish and wildlife at Johnston Atoll NWR that could result from (a) an unplanned, launch-related explosion at or directly above the proposed launch pad and (b) heat, flames, and toxic gasses released during routine missile launches from the pad. This section should be modified in the revised DEIS to include an evaluation of all lethal and

sublethal impacts to all species found within the 2,000-foot GHA and 1,250-foot ESQD designated for Johnston Atoll, including those mentioned above.

The DEIS does not sufficiently discuss potential biological impacts caused by noise associated with rocket launching activities, including both the blast during ignition and any subsequent sonic booms. Because the biological effects of noise are poorly understood and the biological resources at risk are so important, the DEIS should make the worst case assumption until scientific evidence proves otherwise. This section should be modified in the revised DEIS to state that thousands of nesting seabirds and chicks, in addition to federally listed monk seals and turtles in the immediate vicinity of the launch, could potentially suffer permanent deafness or hearing damage.

Page 4-194; 4.3.2.8.2.1 Land Use (Johnston Atoll) The DEIS states that refuge activities within the ESQD on Johnston Atoll NWR would be restricted for safety reasons for up to 56 days per year. It also states that "During these periods, coordination with USFWS personnel for access into the area would be made to minimize the impacts to their activities." However, our understanding of the rationale for establishing ESQDs is to prevent people from entering an area where they could be killed or injured by accidental explosions.

Therefore, placement of refuge staff within ESQDs during launch periods presents an unacceptable safety risk and essentially precludes the Service from accomplishing our mission for nearly two months out of every year. Accordingly, this section should be modified in the revised DEIS to acknowledge the situation and to state that such a restriction would disrupt numerous monitoring and research projects, and severely impair the effectiveness of refuge management.

Page 4-194; 4.3.2.8.2.2 Recreation (Johnston Atoll) The DEIS does not state that *Ciguatera* outbreaks, associated with project-related dredging, would severely affect sport fishing, one of the most popular forms of recreation at Johnston Atoll. The revised DEIS should include this information.

Page 4-247; 4.6 Conflicts with Federal, Regional, State and Local Land Use Plans, Policies, and Controls (Johnston Atoll) Although the DEIS mentions that the Service would make a determination of compatibility on the project-related use of Tern Island in the Hawaiian Islands NWR, the Service's intent to make a similar determination for Johnston Atoll NWR is not mentioned. The revised DEIS should state that we intend to make compatibility determinations for both of the NWRs relative to the Proposed Action.

Page 4-247; 4.9 Adverse Environmental Effects That Cannot Be Avoided The DEIS does not mention that missile launches and associated activities on NWRs would result in the following unavoidable, adverse environmental impacts: 1) wildlife injury and death caused by heat, flames, and toxic gasses released during missile launches; 2) wildlife injury and death caused

by unplanned explosions of missiles on or directly above launch pads; 3) wildlife injury caused by noise associated with missile launches; 4) severe impairment of Service management programs caused by exclusion of NWR personnel from ESQDs for nearly two months per year; and 5) wildlife injury and death caused by collision with antenna and equipment arrays. The revised DEIS should provide a list of these unavoidable adverse impacts.

Page 4-248; Summary of Unresolved Issues The DEIS states that there are no unresolved issues associated with the Proposed Action. We do not support this statement based on the concerns we have raised in these comments. The DEIS is deficient in several respects, both procedural and factual. Major environmental issues and impacts are not identified and evaluated. The DEIS does not clearly state what proportion of the planned launches would be from land, sea, and air platforms.

The DEIS also does not provide an adequate analysis of potential biological effects associated with ground-launching from within the NWRs. The DEIS does not propose to implement adequate measures to avoid, minimize or mitigate many of the potential project-related impacts. All of these unresolved issues need to be identified and fully analyzed in the revised DEIS as part of the impact assessment process.

In the response to the Notice of Intent to prepare the DEIS, the Service provided guidance on the requirements for consultation under section 7 of the ESA, including the preparation of an acceptable Biological Assessment (BA). The Navy initiated this consultation in a letter dated March 11, 1997. The letter stated that the DEIS contained the analysis of biological impacts to threatened and endangered species and indicated that a BA would be prepared following the DEIS public comment period.

The Department recommends that the numerous information gaps in the DEIS, as indicated in this letter, be addressed in the revised DEIS and the BA in order to facilitate an analysis of impacts to listed species. When preparing the BA, we remind the Navy that it is impossible to fully assess impacts without knowing the number of launches planned for the proposed ground-launch pads.

SUMMARY COMMENTS

In summary, the Department believes that the deficiencies in the DEIS preclude its use as a basis for a meaningful analysis of anticipated project-related impacts to fish and wildlife resources and a decision making document. Accordingly, we recommend that the DEIS be revised to include complete information, improved analyses of alternatives and potential impacts, and a clearer commitment to avoid unnecessary impacts, minimize unavoidable impacts, and compensate for significant unavoidable impacts.

Both the Department and the Service will continue to work with the Department of the Navy

to determine whether the Proposed Action is compatible with the objectives of refuge maintenance at Tern Island and Johnston Atoll under the National Wildlife Refuge Administration Act of 1966, as amended.

Thank you for the opportunity to comment on the DEIS.

Sincerely,

Patricia Sanderson Port
Regional Environmental Officer

cc: Director, OEPC, w/original incoming
Regional Director, FWS, Region I

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1100
23 OCT 1998

Patricia Sanderson Port, Regional Environmental Officer
U.S. Department of the Interior
Office of Environmental Policy and Compliance
600 Harrison Street, Suite 515
San Francisco, CA 94107

Dear Ms. Port:

We appreciate your input to this important analysis contained in the Pacific Missile Range Facility (PMRF) Enhanced Capability Draft Environmental Impact Statement (EIS). Additionally, we would like to express our appreciation to the Pacific Eco-Region staff of the U.S. Fish and Wildlife Service (USFWS) for their participation throughout the process of our analysis. Their presence on the initial siting visits and candid input while participating in our in-progress reviews from the first draft to the last allowed us to focus on the important issues in this complex analysis.

First, I would like to point out that we have revised the EIS in several places in an effort to more clearly explain, based upon this analysis, the possible decisions that could be made. Additionally, I would like to make a few clarifications to the assumptions stated in your letter of May 22, 1998.

No chemical agent is being considered for the possible testing and training at PMRF. Instead, simulants such as triethyl phosphate would be used in small quantities.

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

The purpose of the Explosive Safety Quantity Distance (ESQD) discussed in the Draft EIS is not to preclude people from entering and transiting through an area. Restrictions of an ESQD are designed to ensure that people do not spend excessive amounts of time in that area. Moving through an ESQD does not appreciably increase the risk to a person's health and safety. Residing in an ESQD, on the other hand, is not allowed.

The EIS has been revised (Section 4.3.1.3.2.2) to reflect that existing USFWS procedures to prevent additional introduction of terrestrial and marine alien species at Tern Island would be strictly followed.

Even though we have removed the Tern Island and Johnston Atoll alternatives from consideration, we felt it worthwhile to address concerns you raised in your letter. Please find responses to your specific comments below:

A. Executive Summary

Page es-3: The Executive Summary of the EIS has been revised to reflect that, prior to DOD decisions that would include the use of Tern Island, a Compatible Use Determination would be requested from and conducted by USFWS. We believe that the conclusion on compatibility by the Department of Interior may be premature at this time. Additionally, we have added to the executive summary a graphical breakdown of the alternatives being considered within the proposed action and the decisions that are supported by this analysis.

Page es-7: The Executive Summary of the EIS has been revised to indicate that adverse effects to biological resources would occur, although an adverse effect to the species is not anticipated. Additionally, the Executive Summary as well as Section 4.3.1.3.2.2 reflects that use of Tern Island as a target launch location would probably require a permit from NMFS due to probable harassment.

B. Description of Proposed Action and Alternatives

As stated above, the Tern Island and Johnston Atoll alternatives have been deleted from the proposed action, however, issues that were raised in your letter have been addressed.

Page 2-45: Section 2.2.3.2 of the Draft EIS has been revised to more accurately state Johnston Atoll's status as a DOD installation with a cooperative overlay USFWS Refuge.

Page 2-53: Section 2.3.1.3 and 2.3.4 have been revised to more clearly state that mobile and aerial platforms are the preferred options and that Tern Island and Johnston Atoll are fall-back options for launching target missiles. The maximum number of launches being considered for each location is four per year. Since the annual number of launches from either of these locations could vary within this limit, we have used the maximum number for the purpose of analysis to understand the maximum environmental effects that could be experienced.

As a part of the current Endangered Species Act Section 7 consultation, it is anticipated that any additional USFWS-desired mitigation measures would be identified. To date, Pacific Eco-Region USFWS, including refuge managers for Tern Island, have participated in our analyses. In addition to providing input on the suitability of various islands within the Northwestern Hawaiian chain, they were most helpful in identifying where on Tern Island, if a launch pad were necessary, would be the least negative location with respect to their resources of interest. Additionally, they identified that Tern Island is severely eroding and that without seawall reconstruction, the island would be quite adversely affected. Together with these members of USFWS and NMFS staff, we arrived at the preferred location for a launch site on Tern Island--a section of the new seawall, which would be constructed for this purpose but also provide protection for the island.

Page 2-108: Section 2.5. As stated above, there are sufficient differences between Tern Island and Johnston Atoll, both geographically and with respect to the fauna present, to warrant distinction.

C. Affected Environment

Page 3-157: Section 4.3.1.3.2.2 has been revised to clarify that, prior to any dredging at Tern Island or Johnston Atoll, additional biological and geological surveys will be conducted and appropriate mitigation measures will be identified and implemented, in consultation with USFWS and NMFS. Also, Section 3.3.1.3.2.1 has been revised as you suggested.

Page 3-157: Section 3.3.1.3.2.2 has been revised to state that commercial fishing occurs outside refuge boundaries.

As a result of USFWS participation in our site visit to Tern Island, appropriate mitigation measures to minimize any effects to bird habitat have been included in the analysis. For instance, the Service requested and we have included sidewalks as a part of the proposal to preclude burrowed nesting of birds in areas where people would need to walk.

Consultation with NMFS and the Marine Mammal Commission has indicated that Tern Island is not a primary pupping site for monk seals. Section 3.3.1.3.2.4 of the document has been revised to reflect this as well as the fact that any mortality to pups may occur from disturbance to male seals resulting in their movement away from Tern Island. The males could move to one of the other islands in French Frigate Shoals where pupping more frequently occurs; this could result in an increase in male aggression towards pups and create a further obstacle to recovery of the Atoll's seal colony. As stated above, because of this potential impact as well as those impacts identified in the Draft EIS, use of Tern Island would probably require the Navy to request a permit from NMFS for this probable but infrequent harassment.

This section has been revised to note the presence of the wedge-tailed shearwater and Bonin petrels, the fact that Tern Island is a habitat for dense colonies of seabirds, and that 800 potential turtle nests were recorded in 1997.

Page 3-159: Section 3.3.1.3.2.3 of the EIS has been revised as you suggested.

Page 3-162: Section 3.3.1.7.2 has been revised as suggested.

Page 3-164: Section 3.3.1.9.2 has been revised to reflect your suggestions on routine refuge operational noise.

Page 3-167: Section 3.3.2.3.2 has been revised to reflect the bird populations and habitat you indicated and to acknowledge the existence of 300 species of reef fish. However, while current DOD plans are to complete incinerator operation in 2001, DOD has no approved plans to leave Johnston Atoll and the making of such decisions would be subject to consideration of operational needs identified by any of the services. As the Draft EIS stated, however, the ultimate disposition of Johnston Atoll would probably be to USFWS.

D. Environmental Consequences and Mitigation Measures

Page 4-22: Section 4.1.1.3.2.3. The EIS presents a variety of mitigation measures to the decisionmakers. Those measures actually selected will be identified in the Record of Decision based in part on the alternative and sub-alternatives chosen. Your desires will be made known to the decisionmakers both as a part of the EIS and in briefings on the results of the EIS leading to the Record of Decision.

Page 4-129: Section 4.2.1.3.2.1 of the EIS has been revised to clearly state that no construction is proposed near the lakes (playas) in the southern part of Niihau, and Section 4.2.1.3.2.2 incorporates by reference the 1992 Strategic Target System EIS, which addresses the potential impacts of missile and target launches on biological resources at launch sites and in the GHA surrounding a launch site. This potential impact discussion applies to all wildlife, including the Hawaiian waterbirds.

Page 4-157: Section 4.2.2.2.1.1 of the EIS has been revised to acknowledge that the seabird colonies are not regularly monitored by federal officials and the impacts of past bombing apparently have not been studied. While bombing in the past may have resulted in environmental impacts, current and planned activities are limited to small-caliber arms training. This section has also been revised to reflect that the Navy, in consultation with USFWS and NMFS, will develop monitoring plans appropriate for Kaula that include participation of appropriate Navy Explosive Ordnance Disposal (EOD) personnel.

Page 4-164: Section 4.3.1.3.1 has been revised to reflect the corrected information you provided.

Page 4-164: Section 4.3.1.3.2 has been revised to reflect the corrected information you provided.

Page 4-165: Section 4.3.1.3.2.1 and 4.3.2.3.2.1 have been revised to more clearly reflect that, prior to dredging at Tern Island or Johnston Atoll, additional biological and geological surveys will be performed and if necessary, NEPA analysis will be conducted at Tern Island. The surveys and any additional appropriate mitigation measures will be identified and implemented, in consultation with USFWS and NMFS, prior to any dredging at Tern Island or Johnston Atoll. As stated above, while monk seals are known to haul out on Tern Island, the Marine Mammal Commission and NMFS have advised us that Tern Island monk seals are usually male and the island is not a primary pupping site.

Page 4-165: Section 4.3.1.3.2.2 of the EIS has been revised to incorporate the references cited in Section 4.2.1.3.2.2 that address the potential impacts of missile and target launches on biological resources at launch sites and in the GHA surrounding a launch site in detail, including the impacts of launch noise and release of contaminants into the air as fuel is burned. As stated above, not enough is known about the direct physiological effects to assert that potential permanent deafness or hearing damage would result from the noise associated with the proposed missile launches. The EIS has also been revised to reflect that existing USFWS procedures to prevent additional introduction of terrestrial and marine alien species at Tern Island would be strictly followed.

Page 4-169 Section 4.3.1.5.2 has been revised to delete the reference to the wood shop.

Page 4-175: The purpose of the ESQD was stated above. Section 4.3.1.8.2.1 of the Draft EIS states that access is "controlled," not "restricted." Contrary to the understanding of the purpose of the ESQD described in your letter, personnel are not restricted from passing through the area.

Page 4-185: Section 3.3.1.3.2.2 has been revised to reflect the presence of more than 200,000 nesting seabirds. Section 4.3.2.3.2.1 has also been revised to clarify that before dredging activities are conducted, additional biological and geological surveys will be required in consultation with NMFS and USFWS and that appropriate mitigation measures will be adopted to minimize *Ciguatera* and other effects which would be associated with this type of activity.

Page 4-186: Section 4.3.2.3.2.2 of the EIS has been revised to incorporate the references cited in Section 4.2.1.3.2.2 that address the potential impacts of missile and target launches on biological resources at launch sites in the GHA surrounding a launch site in detail, including the impacts of launch noise and release of contaminants into the air as the fuel is burned. As stated above, not enough is known about the direct physiological effects to assert that potential permanent deafness or hearing damage would result from the noise associated with the proposed missile launches.

Page 4-194: Please refer to previous responses regarding the ESQD.

Page 4-194: Section 4.3.2.8.2.2 has been revised to acknowledge that *Ciguatera* outbreaks could have an impact on sport fishing at Johnston Atoll.

Page 4-247: Section 4.6. While Tern Island is a part of a National Wildlife Refuge, Johnston Atoll's status is somewhat different. Johnston Atoll is currently a DOD installation which, in cooperation with USFWS, accommodates and provides funds to USFWS to manage an overlay refuge and is, as such, not subject to a Compatible Use Determination as defined in the Refuge Act.

Page 4-247: Section 4.9 of the EIS acknowledges unavoidable adverse impacts to marine and terrestrial species, including some threatened and endangered species on Kauai, Niihau, and Tern Island as well as Johnston Atoll.

Page 4-248: The Executive Summary and the Description of the Proposed Action and Alternatives have been revised for clarity. Specifically, a detailed description of the decisions that are supported by this analysis are detailed by location and alternative. (See the chart in the Executive Summary and Section 2.3.4) We believe a meaningful analysis can be accomplished by evaluating the potential environmental effects of the upper limits of the types and frequencies of activities that could occur at each location.

A Biological Assessment was hand-delivered to the Pacific Eco-Region offices on June 4, 1998 even though we no longer have plans to use Tern Island and Johnston Atoll in the proposed action.

Comments such as yours have provided added value to the content and clarity of the EIS. I would once again like to express my gratitude for the past, present, and continued participation of the US Fish and Wildlife Pacific Eco-Region staff in this effort and to offer my sincere thanks to you and your staff for your valuable input.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0274

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

MAY 26 1998

Ms. Vida Mossman
Pacific Missile Range Facility
PO Box 128
Kekaha, Kauai, Hawaii 96752-0128

Dear Ms. Mossman:

The U.S. Environmental Protection Agency (EPA) has reviewed the U.S. Navy Draft Environmental Impact Statement (DEIS) for ***Pacific Missile Range Facility (PMRF) Enhanced Capability, Kauai, Hawaii.*** Our comments are provided under the National Environmental Policy Act (NEPA), Section 309 of the Clean Air Act and the Council on Environmental Quality's (CEQ) NEPA Implementing Regulations (40 CFR 1500-1508).

The proposed project consists of maintaining existing programs while expanding the capabilities of the PMRF to serve the needs of developmental and operational testing and training associated with the Theatre Ballistic Missile Defense (TBMD) program, and to support Theatre Missile Defense testing by other Department of Defense (DOD) agencies. Existing programs include range and land-based operations and training, and ongoing maintenance of the technical and logistical facilities. The TBMD is a layered defense system consisting of an upper tier (designed to provide defense from missiles at long-range and high altitudes) and a lower tier (designed to defend smaller areas at low altitudes). The Proposed Action tests improved missile defense systems against simulated missile attacks. Target missiles (propelled by solid rocket fuel) would be launched from land or water to be intercepted by missiles from intercept missile launch sites. In some cases, missiles would carry small quantities of tri ethyl phosphate in simulated chemical/biological attacks. The proposed project includes upgrading existing and/or installing new tracking sensors, data receiving sensors, telemetry, and communications facilities transmitting among ship, aircraft, and missiles, and the construction of new target missile launch facilities. The Proposed Action and a No Action alternative were evaluated.

EPA has rated the proposed project and the NEPA document **EO-2, Environmental Objections, Insufficient Information.** For additional information concerning our rating system, please refer to the rating summary, also attached. The basis of EPA's objections is:

- That there is insufficient analysis of what are likely to be significant impacts to biological resources in the Johnston Atoll and Hawaiian Islands National Wildlife Refuges, particularly to migratory birds and federal list species, that result from the Proposed Action. Significant impacts to biological resources at these locations should be avoided

to adequately protect the environment; and,

- That additional alternatives should be presented and that a more detailed approach should be taken in the analysis in describing the Proposed Action, purpose, need, impacts, and mitigations to facilitate informed decision making.

The attached comments reflect our objections in greater detail. We appreciate the opportunity to comment on the DEIS/R. Please send two copies of the Final Environmental Impact Statement to David Farrel, Chief, Federal Activities Office (code: CMD-2) at the letterhead address when it is filed with EPA's Washington, D.C. office. Rosalyn Johnson will contact you in the near future to arrange for a conference call to discuss EPA's objections. Please call David Farrel or Rosalyn Johnson at (415) 744-1584/74 if you have questions prior to that contact being made.

Sincerely,

Deanna M. Wieman, Deputy Director
Cross-Media Division

Attachment

CC: Brooks Harper & Michael Molina, USFWS
Norm Lovelace, US EPA Region IX
John McCarroll & Raymond Saracino, US EPA Region IX
Wendy Wiltsy, US EPA Pacific Islands Contact Office
Vicki Tsuhako, US EPA Pacific Islands Contact Office

ATTACHMENT

SUMMARY OF RATING DEFINITIONS AND FOLLOW-UP ACTION

Environmental Impact of the Action

LO-Lack of Objections

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC-Environmental Concerns

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO-Environmental Objections

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU-Environmentally Unsatisfactory

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of environmental quality, public health or welfare. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommend for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1-Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2-Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3-Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From: EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

Biological Resources

The USFWS expressed deep concerns in the 6/23/97 scoping letter that "the Proposed Action would represent a serious threat to several of the small, fragile islands within the Hawaii and Pacific Islands National Wildlife Refuge (NWR) Complex that are densely populated with wildlife and support entire breeding populations of federal trust species." The islands include Tern Island (Hawaiian Islands NWR) and the islands of Johnston Atoll NWR. EPA supports the USFWS in that agency's concerns over the insufficient analysis of impacts to biological resources in the DEIS as expressed in their letter to Vida Mossman re: "Draft Environmental Impact Statement (DEIS) for Pacific Missile Range Enhanced Compatibility." According to that letter, the NWRs "support enormous numbers of nesting migratory seabirds and provide foraging habitat for migratory shorebirds... federally listed green sea turtles,...and endangered Hawaiian monk seals....Tern Island is a crucial breeding site for a large percentage of the Hawaiian populations of monk seals and green sea turtles."

In general, USFWS concerns include the failure of the DEIS to assess the impacts on biological resources of unplanned, launch-related explosions; of heat, flame, and toxic gases released during routine missile launches; of the Proposed Action on the management and operation of the national wildlife refuge and refuge personnel; of the extent of the bird strike hazard posed by the Proposed Action; and, of the potential for spread of exotic species through military activities and transportation. EPA shares many of the USFWS concerns over breeding birds, threatened, and endangered species that would be affected by the Proposed Action would like to see these concerns fully addressed.

EPA finds it particularly objectionable that the Navy did not address the impacts and mitigations for the destruction of nests and individuals in the migratory bird populations on Johnston Atoll and Tern Island. All of the birds listed in Figure 3.3.1.3-1 are on the list of birds protected by the Migratory Bird Treaty Act of 1918. Under the act, there is a prohibition unless permitted by regulations, to "pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess...any migratory bird, included in the terms of this Convention . . . for the protection of migratory birds . . . or any part, nest, or egg of any such bird." (16 U.S.C. 703) The analysis in section 4.3.1.3.2.1 and 4.3.1.3.2.2 indicate that individual birds may be killed through collisions with aircraft and bird strikes on antennas, and that launch noise, operation of Mobile Aerial Target Support System (MATSS) generators and diesel engines are likely to disturb nesting birds. Section 4.3.2.3.2.1 indicates that "clearing and removal of nesting habitat currently being used by a variety of seabirds and migratory shorebirds" would be undertaken on North, East and Sand Islands as part of the Proposed Action. Significant impacts to biological resources in the National Wildlife Refuge System should be avoided.

US EPA Comments- Draft Environmental Impact Statement
Pacific Missile Range Facility Enhanced Capability
Kauai, Hawaii
May 1998

National Environmental Policy Act

Alternatives Including the Proposed Action

Uncertainty about the preferred use of one site or another should be eliminated from the description of the Proposed Action in the Final Environmental Impact Statement (FEIS). For example, the DEIS indicates uncertainty about the placement and type of facilities. On pages 2-67 and 2-72 the statements "Implementation of the Proposed Action would require *either* the use of existing facilities at KTF, or new...facilities," "modifications *could* also be made to the existing Rocket Motor Staging Area," "*several sites* have been identified as *potential locations* for placement," and "the...helicopter pad *may* be relocated," are some of those that give too little definition to the Navy's plans [italics added]. This issue should be addressed throughout Chapter 2 as needed, and these changes should be reflected in a tightening of the analysis in Chapter 4, Environmental Consequences.

The lack of certainty about the Proposed Action that is discussed above could be resolved through breaking out aspects of the current Proposed Action into additional alternatives in the FEIS. A full range of alternatives should be presented in a comparative format that allows the decision maker and the public to review all possible alternatives and weigh them on their own merits. The use of only one action and the No Action alternative do not provide a "clear basis for choice among options by the decision maker and the public" (40 CFR 1502.14). Additional alternatives should be developed for the FEIS. For example, an alternative could be developed that analyzes missile launches from mobile and aerial platforms rather than land-based sites. This type of alternative would potentially be far less damaging to migratory birds and other species discussed in **Biological Resources**.

According to Table 2.4-1, many alternative sites were considered, however it is unclear from Table 2.4-1 whether the marks in the columns indicate concerns or lack of concern associated with each site. For example, the table gives the appearance that public health and safety concerns were not a concern at Niihau or Kauai since both remained on the list of viable candidate sites despite the health, safety, and noise concerns discussed in Chapter 4. Reevaluation of the site selection criteria and a more detailed explanation of why sites were excluded from consideration is recommended. This reevaluation should assist in the development of new alternatives.

The description of the Proposed Action should include additional detail on the nature of the construction being proposed (e.g., building size and footprint, duration of construction activities, and other information that could add to the reader's ability to comprehend the specific nature of the elements of the Proposed Action). This could be accomplished in an expansion of Table 2.3.4-2 with one additional column that briefly describes the proposed modification or new

facility and another column with the dimensions of the construction impact areas.

Purpose and Need

The Purpose and Need statement should "specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the Proposed Action" (40 CFR 1502.13). The text should be presented in such a way that readers can easily link the Proposed Action and alternatives to the stated purpose and need for the project.

It is not clear in the DEIS (2-77, 2-80) whether Tern Island and the islands of Johnston Atoll are all necessary parts of the implementation of the Proposed Action. Though the document does say that "target systems must be launched at distances up to 1,200 km away from where the TMD systems are located," it is unclear whether the launch systems have to be land-based. How many land-based launch sites are necessary to meet the needs of the project? This level of detail on the project should be defined in the FEIS in Purpose and Need. Including this information and other details about the needs of the project would assist the decision maker in evaluating how well the Proposed Action satisfies the project objectives. Also, a clearer statement of purpose and need for the project would assist the decision maker and the public in evaluating the relative merits of the Proposed Action, the alternatives, and No Action.

Scope

The excessing of Johnston Atoll by the Air Force (page 2-45), probably resulting in USFWS becoming the landowner, raises questions of whether appropriate infrastructure would be available for PMRF expansion facilities. For example, if the Air Force disposes of the property would such critical structures as the runway, sewage treatment plant, water plant, power plant, and solid waste incinerator still be used, and if so, how would they be maintained? The FEIS should describe any personnel, equipment, or maintenance activities that would have to be undertaken by the Navy as a result of land excessing by the Air Force. Also, would the PMRF proposal described in the DEIS affect any plans or agreements reached between DOD and Department of Interior agencies?

Page Limits

40 CFR Section 1502.7 states that "proposals of unusual scope or complexity shall normally be less than 300 pages." This approximately 500 page document (not including the appendices) is unnecessarily long. The table of contents (TOC) alone would be more than 10% of a 300 page document. Some suggestions for ways to reduce the document length follow.

- No Action Alternative - Streamline the discussions of individual existing programs and

projects in sections 2.2.1 and 2.2.2 with an eye toward the physical manifestation of these program elements on the human and natural environment. CEQ's 40 Most Asked Questions states that "the 'No Action' alternative may be thought of in terms of continuing the present course of *action* [italics added]." In that light, rather than spending a great deal of text on the details of what each program does, focus on the *action* that depends on that activity. This would provide the baseline information by which readers would judge the increase in activity brought about by the Proposed Action's implementation. Section 2.2.3 provides a good example, especially in the last three paragraphs of section 2.2.3.1 by describing the number of personnel, frequency and type of activity. Also consider listing minor programs in a table with relevant personnel, frequency and type of activity information rather than describing them in text.

Reevaluate the content of the document, especially Chapter 3, in light of 40 CFR 1502.2 which states, "[EISs] shall be analytic rather than encyclopedic." Though this is a large and complex project, the analysis could be simplified and improved by removing unnecessary detail on individual operations and training programs and adding detail to the analysis.

Mitigation

Mitigations should be stated definitively throughout Chapter 4. Replace "could" with "would." For examples of vague mitigation statements please refer to the construction-associated air impacts. Mitigations are presented throughout the document in response to levels of impact that are not well defined in terms of significance. A concerted effort should be made in preparing the FEIS to describe the expected impacts in greater detail to assist the decision maker and the public in understanding why impacts that are considered adverse are or are not considered significant. Assessing the appropriateness or mitigations is partially dependent on the level of detail provided on the impacts of the Proposed Action.

Hazardous Materials

Quantities of hazardous materials and waste that would be generated as a result of the Proposed Action should be estimated in the FEIS. Statements such as "some minor increases in the use of hazardous materials and generation of hazardous waste" (page 4-103) are not sufficient to support findings of no impact. Also, it would be helpful if the management or mitigation plans that are in place for dealing with hazardous materials/waste generation were more clearly described or referenced. At points in Chapter 4 they are mentioned but they are not discussed. If they appear elsewhere in the document, the appropriate section should be referenced.

Air Quality

The final EIS should discuss any applicable state or county requirements to control or abate air pollution due to the project's construction or operation, including applicable permit requirements. Mitigation measures for all air impacts (e.g., construction-associated impacts on pages 4-85, 4-98,4-110, 4-126, 4-185) should be stated in definitive terms (e.g., replace "could" with "would"). On page 4-7 the statement that "agricultural burning...causes elevated amounts of particulates and when added to the particulate level from the [Minimum Cost Design Liquid Upper Storage] MCD-LUs and [Hypersonic Lifting Body] HLB programs could lead to an exceedance of the established [National Ambient Air Quality Standards] NAAQS" leaves too much uncertainty over what would happen were the NAAQS exceeded. Mitigation measures should be clearly defined for potential impacts.

4-156 An air quality analysis should be added for Kaula.

Environmental Justice

The Environmental Justice analysis seems inconsistent with the analysis of Environmental Consequences on Niihau. Adverse impacts and mitigations are described that are not mentioned in the Environmental Justice section. For example, adverse cultural resource impacts are expected that should be described in greater detail along with appropriate mitigations. Evaluations and field surveys associated with these expected direct and indirect impacts should be undertaken prior to the issuance of the FEIS, and be fully disclosed in that document. The apparent discrepancy between the impacts described in the resource sections could be attributed to the lack of detail in describing impacts that is discussed earlier in this letter under **Mitigations**.

Please review the 1998 guidance on Environmental Justice provided by the Council on Environmental Quality to assure consistency of the FEIS with that guidance.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1102
23 OCT 1998

Deanna M. Wieman, Deputy Director, Cross-Media Division
United States Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, CA 94105

Dear Ms. Wieman:

We appreciate your review and comments on the Draft Environmental Impact Statement (EIS) for the Pacific Missile Range Facility Enhanced Capability.

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island, has led the Navy to eliminate this site from consideration as Proposed Action sites in the Final EIS. Similarly, since no current mission requirements exist for Johnston Island it has been eliminated from consideration. The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives. Even though we have removed the Tern Island and Johnston Atoll alternatives from consideration, we felt it worthwhile to address concerns you raised in your letter.

In general, we believe our evaluation of potential environmental impacts resulting from on-going and proposed PMRF activities has been adequate to inform both the public and Navy decisionmakers. However, through on-going consultation with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS), additional information concerning some of the areas of concern to you has been obtained and has been included in the EIS. Please find responses to your specific comments below:

Biological Resources

Your comments concerning biological resources indicate that they are in support of concerns expressed by the USFWS in its scoping letter, dated June 23, 1997. The Department of Interior has since submitted formal comments on the Draft EIS (May 22, 1998), to which we have responded in detail. We have enclosed with this letter a copy of the Department of Interior letter and our response. This will, hopefully, fully address your concerns relating to the adequacy of the analysis.

With respect to migratory birds, our approach has been to analyze fully impacts that may result from PMRF activities and to identify mitigations where appropriate. However the

elimination of Tern Island and Johnston Atoll as alternatives moots the migratory bird issues you raised.

National Environmental Policy Act

Alternatives Including the Proposed Action

In order to more clearly define the range of alternatives presented in the EIS, substantial additional discussion has been included in Section 1.4 "Decisions to be Made." In addition, a decision matrix (Table ES-1) has been added to the Executive Summary, and Figure 1.4-1, a detailed breakdown of decisions by activities, has been added to Chapter 1.

TMD program development and testing, and training to support it, are dynamic and complex. It is not possible to describe every possible test event or missile type or to specify the exact number of tests or the precise locations that will be required to support the program in the future. Consequently, the EIS analyzes the environmental impacts associated with a variety of test scenarios and missiles as well as those support sites, including launch sites and methods (land, sea, or air launch), that could support TMD testing and training at PMRF. It is not known at this time which sites and launch methods will ultimately be used. As stated in the EIS, air and sea launch are the preferred methods of delivering target missiles. This EIS analysis will provide decisionmakers information concerning sites and test modes early in the process that will allow them to make informed decisions, taking into account environmental factors as well as factors relating to cost, mission and schedule. We recognize the confusion that may be created by this approach, since many reviewers are accustomed to much more narrowly defined actions in NEPA analyses. However, the additional discussion and figures in the EIS more clearly summarize the proposed action alternatives and the potential decisions that will be made.

The meaning of Table 2.4-1 has been clarified in the EIS.

Additional details, over and above those that are already presented in the Draft EIS, on the nature of construction being proposed cannot be provided at this time.

Purpose and Need

As stated above, Tern Island and Johnston Atoll are no longer being considered as Proposed Action alternatives. With the changes and additions to Chapter 1 described above, we believe that the EIS adequately and clearly discusses the purpose and need of the proposed action. Section 1.1.1 provides background discussion that explains the need for development of TMD systems and testing and development of these systems. The first paragraph of Section 1.2 states: "The purpose of the proposed action is to comply with Congressional direction to enhance PMRF. This enhancement would provide PMRF with sufficient capabilities to allow development, testing, and evaluation of Navy TBMD and DOD TMD systems, as well as training of personnel in the use of these systems once they are introduced to the fleet." The fifth paragraph in Section 1.2 reads: "This EIS describes and evaluates the environmental consequences of the variety of ways in which capabilities of PMRF may be enhanced in order to fully support Navy TBMD and DOD TMD development, testing, evaluation, and training." We believe this discussion provides the necessary linkage to the proposed action, the various elements of which are discussed in Section 2.3.

Scope

Since the Navy is no longer considering Johnston Atoll, the issues you raise are largely moot. However, under Federal property disposal regulations, if the Air Force excesses Johnston Atoll, the property would need to be screened within DOD to determine whether there is any other defense agency with a need for all or portions of it prior to it becoming available to another agency, such as the USFWS of the Department of Interior. Any DOD agency would have the opportunity, at that time, to identify its requirements. In any event, we would expect the uses of Johnston Atoll to continue to be divided between wildlife preservation and defense activities. The using agency would be responsible for maintenance of essential infrastructure.

Page Limits

The recommended 300 page limit has not been realized due to the unusual number of locations under consideration, and the complexity of environmental issues involved. In order to shorten the document as well as address your comment to make the EIS less "encyclopedic" and "to remove unnecessary detail", we have simplified language and relocated considerable detailed information from the tables in Chapter 2 into the appendices. We believe this makes the document more readable and easier for the reader to understand the nature of the actions.

Mitigation

Many actions that will be taken to reduce or avoid adverse environmental impacts are included as part of the proposed action instead of being identified as mitigations. Those actions that could be taken to further reduce environmental impacts are discussed as potential mitigations, which are presented to the decisionmaker for selection, since they are frequently dependent on resources and funding availability. Those mitigations selected will be identified in the Record of Decision. The CEQ regulations require only that the agency identify and discuss appropriate mitigations in the body of the EIS prior to the Record of Decision. We have included additional discussion in the EIS of mitigations that have been identified during the public comment period on the Draft EIS.

Hazardous Materials

Precise quantities of the hazardous materials that will be handled, and the hazardous wastes generated by the Proposed Action, are not possible to estimate at this time. The

best estimate, as mentioned in Section 4.1.1.6.2, is an overall 10 percent increase. The analysis determined whether or not the procedures and facilities required to handle hazardous materials, and to dispose of hazardous waste, were in place to handle any potential quantities of hazardous materials or waste. For remote locations, hazardous materials would only be brought to the site when required for use and would not be permanently stored on site. Hazardous wastes would be shipped off site for proper disposal. Existing permit conditions and disposal facilities would be used.

Air Quality

Sections 3.1.1.1.2.3 and 4.1.1.1.1 of the EIS have been revised to indicate that PMRF now has a Title V permit in place. As discussed above, except for measures required by law and regulation, the potential mitigation measures are presented to the decisionmaker for selection. Those selected will be identified in the Record of Decision.

The discussion in Section 4.1.1.1.2 of the EIS has been clarified to note that the possible exceedance of air quality standards for particulates due to the cumulative impacts of agricultural burning combined with MCD-LUS and HBL programs would be of very short duration, since the Navy programs are isolated, short-term events.

Volume 4 Appendix D contains the analysis for locations where resource areas are determined to be not affected. An air quality analysis on Kaula is included there.

Environmental Justice

We have reviewed and we believe the environmental justice analysis complies, and is consistent, with the 1998 CEQ guidelines. Cultural resource impacts address archaeological, historic and prehistoric resources and are addressed in the Cultural Resource Sections of the EIS. As noted in Section 1.6 of the Draft EIS, special efforts have been made to include Niihau residents in the public process and to obtain their views.

We appreciate your timely review and interest in this important effort.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0276

MARINE MAMMAL COMMISSION
4340 EAST-WEST HIGHWAY, ROOM 905
BETHESDA, MD 20814

26 May 1998

Ms. Vida Mossman
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

Dear Ms. Mossman:

The Marine Mammal Commission, in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed and offers the following comments on the 3 April 1998 "Draft Environmental Impact Statement for the Pacific Missile Range Facility Enhanced Capability."

General Comments

The Draft Environmental Impact Statement (DEIS) assesses potential environmental impacts associated with a U.S. Navy proposal to continue current operations at the Pacific Missile Range Facility (PMRF) and to expand those operations to include testing and training for an enhanced missile defense system. The main base of operations is located along the southwest shore of Kauai, Hawaii. Various other land and water areas throughout the Hawaiian Islands are used for radar and communications installations, exercise areas, firing ranges, etc. The proposed expansion of the missile defense program would involve launching and tracking both target and interceptor missiles from various locations to test capabilities for intercepting and destroying hostile incoming missiles in mid-air.

The proposed missile defense testing and training program would require additional launch sites and tracking stations. The DEIS indicates that both target and interceptor missiles could be launched from fixed or mobile platforms located up to 1,200 km (648 nmi) apart. In this regard, the DEIS notes that target missiles could be launched from (1) two types of free-floating barges (i.e., a Mobile Area Target Support System, MATSS, or a Sea Launch Platform, SLP), (2) specially configured aircraft, and/or (3) new land-based launch facilities that possibly could be constructed at Johnston Atoll, Tern Island in French Frigate Shoals, and/or Niihau.

Discussions in the DEIS on the technology and capabilities of mobile sea-based and aircraft launch platforms are not entirely clear. For example, target missile launches from aircraft are described as conceptual, rather than proven.

Similarly, the DEIS indicates that a MATSS vessel might be stationed adjacent to Tern Island, but it does not indicate the range of depths and sea conditions in which it could operate. Interceptor missiles would be launched from new, modified, or existing launch facilities at PMRF on Kauai, new facilities on Niihau, or an AEGIS cruiser.

The DEIS concludes that proposed activities on Tern Island at French Frigate Shoals would adversely affect endangered Hawaiian monk seals and sea turtles, and various species of seabirds. In this regard, the DEIS indicates that the Navy has initiated consultations with the National Marine Fisheries Service and the Fish and Wildlife Service pursuant to the provisions of section 7 of the Endangered Species Act. Because Tern Island is part of the Hawaiian Islands National Wildlife Refuge, the DEIS indicates that the Fish and Wildlife Service will need to make a compatibility determination regarding the proposed activities at Tern Island and the land use plans, policies, and purposes of that Refuge. These steps are crucial to the impact assessment and the Marine Mammal Commission recommends that the results of these consultations be included in the Final Environmental Impact Statement.

The Commission is particularly concerned about the possible effects of the proposed action on Hawaiian monk seals. In this regard, the DEIS concludes that construction activities at Tern Island would adversely affect Hawaiian monk seals. It also concludes that noise associated with four missile launches per year at Tern Island would cause some seals to flee into the water, but that given this number of launches, monk seals would not be jeopardized by the proposed activities. Further, it concludes that mitigation measures to control pre- and post-launch activities would prevent disturbance of seals. The Marine Mammal Commission agrees that construction activities would adversely affect Hawaiian monk seals but does not agree that subsequent missile launches and related activities would not pose a serious risk of jeopardizing the species.

The French Frigate Shoals colony of Hawaiian monk seals is the species' largest breeding colony and has been declining since the late 1980s because of very poor juvenile survival attributed primarily to a decline in prey availability. In 1997, pup survival was particularly low because of aggression by adult males towards pups and shark predation at the atoll's principal pupping beaches on East, Trig, and Whaleskate Islands. Most French Frigate Shoals pups are born at these locations, while Tern Island is used principally by adults and subadults other than nursing females and pups. If animals are displaced from Tern Island, the number of adult males at pupping beaches could increase, which could increase the incidence of male aggression towards pups and create a further obstacle to recovery of the atoll's seal colony.

Disturbance by Coast Guard personnel at Tern Island prior to 1979 limited monk seal use of the Island. Several years of strict controls on human activity were required before seal numbers at Tern Island reached present levels. If seals were displaced from Tern Island by proposed construction activities, their return could be deterred by periodic launch activities and launch related factors including noise, exhaust emissions, ground vibrations, and bright light from rocket launches. While an individual launch event may not result in any direct or indirect mortality of monk seals or alteration of seal haul-out patterns, the Commission believes that several such events per year would cause such impacts. In this regard, we note that the DEIS states that 10 or more test flights per month could occur as part of missile defense training exercises, suggesting that the number of launches at Tern Island could exceed four per year. In addition, Tern Island is the haul out closest to the atoll's principal monk seal feeding area along the northern edge of the atoll. Displacement of seals to haul outs more removed from this feeding area could increase energetic requirements for seals that are already food limited. In view of these points, the Marine Mammal Commission recommends that the DEIS be revised to indicate that the impact of such activities on Hawaiian monk seals at Tern Island is uncertain at best and that it is not unreasonable to anticipate significant adverse effects on this species.

Given the possibility of such impacts on monk seals, the status of the species and its colony on French Frigate Shoals, and possible impacts on populations of seabirds and sea turtles using Tern Island, the Marine Mammal Commission recommends that Tern Island be withdrawn from consideration as a potential target missile launching site and that the Navy instead include only land-based sites outside of the Northwestern Hawaiian Islands or rely on the development of mobile sea- or air-based launch platforms. As discussed below, the Marine Mammal Commission also recommends that the Navy consult with the National Marine Fisheries Service to determine whether additional studies should be undertaken to monitor seal haul-out patterns at Niihau and whether mitigation measures pertaining to activities on Niihau are adequate to protect seals from disturbance at that location.

Even if the proposed action did not jeopardize the continued existence of the Hawaiian monk seal, discussions in the DEIS clearly indicate that the incidental taking of some seals is likely. As such, it seems that the Navy would need to secure authorization for such taking under both the Endangered Species Act and the Marine Mammal Protection Act. This should be noted in the discussion of environmental consequences and mitigation measures for the proposed action. The discussion should note, among other things, that before an incidental take authorization could be issued under section 101(a)(5) of the Marine Mammal Protection Act, the Navy would need to demonstrate that any such taking would have a negligible impact on the Hawaiian monk seal.

Specific Comments

Page ES-3, Fourth Complete Paragraph: This paragraph states that "neither the No Action Alternative nor the Proposed Action conflicts with any land use plans, policies, or controls," and that a determination of compatibility regarding the use of Tern Island in the Hawaiian Islands National Wildlife Refuge will be made by the Fish and Wildlife Service. The Service has not yet made a compatibility determination regarding the use of Tern Island for the proposed action and thus it seems premature to conclude that the proposed activities at Tern Island are consistent with plans and policies in effect for that site.

Although the DEIS also states that the proposed action would adversely affect biological resources on and around Tern Island, it surprisingly does not conclude that such actions may also be inconsistent with land use plans and policies for the Refuge. As noted above, the Commission believes that proposed construction and missile launch activities at this site could adversely affect the declining Hawaiian monk seal colony at French Frigate Shoals and that at least some of the proposed activities at Tern Island would be inconsistent with land use policies and purposes of the Refuge. The paragraph should therefore be revised either to note that proposed activities at Tern Island may be inconsistent with land use plans and policies for the Refuge, or to explain the basis for concluding that use of Tern Island, as proposed, would not conflict with Refuge land use plans and policies.

Pages 2-45 to 2-52, Section 2.3, Proposed Action Alternative: This section notes that, after the developmental testing phase of the missile testing program ends in 2002, perhaps 10 flight tests per month may occur, although the actual number of tests is expected to be much lower. This section should be expanded to indicate the potential number of launches that might occur from individual launch platforms, including those at Tern island. In addition, the maximum number of flight tests per month or year during the developmental testing phase should be noted.

Pages 2-54 to 2-57, Section 2.3.1.3.2, Mobile Platform Sea-Based Target Preparation: This section discusses two types of mobile sea-based target launch platforms that might be used to test missile defense capabilities -- Mobile Area Target Support Systems (MATSS) and Sea Launch Platforms (SLP). It does not, but should, note whether MATSS vessels must be anchored for launching missiles and describe the range of depths and sea conditions in which this type of vessel might be used. In addition, it should explain why an AEGIS cruiser could not be used to launch target missiles.

Page 2-61, Last Complete Paragraph: This paragraph notes that total personnel involved in a typical target flight test would be approximately 47 people over a 2-3 week period. It should be

expanded to indicate the precise number of people and period of time required to conduct pre- and post-launch activities at remote launch sites, particularly at Tern Island.

Page 2-108, Table 2.5.3, Summary of Environmental Impacts: This table briefly summarizes possible environmental impacts of the no-action and proposed action alternatives on Tern Island and Johnston Atoll. Regarding the proposed action's effect on biological resources at Tern Island, it notes that adverse effects are possible due to dredging and removal of a small amount of habitat. The construction and operation of launch facilities also would increase disturbance of seals using the island's beaches and displace at least some animals to other parts of the atoll. As discussed below, the Commission believes this too could adversely affect the atoll's monk seal colony and it therefore recommends that something like the following be added to the summary of impacts on this table: "Construction and operation of missile launch facilities would disturb and displace at least some seals from Tern Island and likely cause increased mortality and/or reduced productivity."

Page 3-34, Hawaiian Monk Seals: Endangered Hawaiian monk seals are the marine mammal most likely to be affected by the proposed action. This section should be expanded to provide additional information on the status and threats to this species. Among other things, it should note that the species' overall abundance appears to be declining principally because of a sharp decline in the survival of pups and juveniles at French Frigate Shoals. The decline began in the late-1980s and may be due to a reduction in prey availability.

This section also should note that major threats to the species include human disturbance that has been documented to cause seals to abandon preferred haul-out sites and affect pup survival by causing them to flee into the water where they may be exposed to sharks or other sources of mortality. It also should note that the death and injury of juvenile animals due to adult male aggression has been identified as a factor impeding recovery of monk seal colonies on Laysan and Lisianski Islands, and that this also has been observed, although less frequently, at French Frigate Shoals. Other factors affecting or potentially affecting recovery are entanglement in marine debris, entrapment in failing sea walls, and mortality due to ciguatera poisoning, a toxin that can become suspended in the water column as a result of activities such as dredging. Finally, we understand that the occurrence of monk seals in the main Hawaiian Islands has increased over the past 20 years. The extent to which sightings and births have increased in different areas of the Main Hawaiian Islands, including Kauai and Niihau, should be discussed.

Page 3-135, Section 3.2.1.3.2.2, Threatened and Endangered Species: This section briefly discusses threatened and

endangered species occurring on Niihau. It notes that endangered Hawaiian monk seals occur on most of the Island's beaches, but it provides no information on the relative importance of different beaches or on any observed trends in monk seal occurrence on the Island and on individual beaches. As noted above, we understand that monk seal sightings in the main Hawaiian Islands have increased in recent years. If this has occurred on Niihau, there may be an increasing need for measures to avoid disturbance of seals at preferred haul-out areas on this Island. To provide a basis for assessing such needs, this section should be expanded to include information on which Niihau beaches are used most often by monk seals for haul-out and pupping, the frequency with which different beaches are used for these purposes, and haul-out trends on the various Island beaches over time. If this information has not been collected, the DEIS should indicate the extent to which relevant data are available and discuss what needs to be done to collect such data. If it is determined that incidental taking authority under the Marine Mammal Protection Act is required for these activities, such information might be needed to enable the National Marine Fisheries Service to draft regulations designed to effect the least practicable adverse impact on the species and its habitat.

Page 3-159, Section 3.3.1.3.2.3, Special Habitats: This section identifies habitats of special concern at Tern Island. It notes that the National Marine Fisheries Service "designated critical habitat for the Hawaiian monk seal out from shore to 36.6 m (20 fathoms) in areas of the Northwestern Hawaiian Islands." This statement should be clarified to note that the designated area includes beaches as well as water areas extending out from shore.

Page 3-159, Section 3.3.1.3.2.4, Threatened and Endangered Species: This section discusses threatened and endangered species at Tern Island. It notes that the colony of endangered Hawaiian monk seals on French Frigate Shoals is the species' largest, that the colony has been declining since the late 1980s, and that only a few pups are born each year on Tern Island. It should be expanded to note that the decrease in numbers is due to a significant decline in juvenile and pup survival and that new actions adversely affecting their survival could seriously inhibit potential recovery of the colony. Whereas survival rates of young animals at French Frigate Shoals approached 90 percent per year early in the 1980s, they dropped to about 30 percent in the mid-1990s and may have been less than 20 percent in 1997. Although the increase in juvenile mortality may be related largely to a reduction in prey availability, adult male aggression and shark predation have also been factors causing many pups to die in 1997. Entanglement in derelict fishing nets is a factor, too.

Information on past changes in the distribution of seals throughout French Frigate Shoals should be noted. For example,

it should be noted that the number of seals on Tern Island beaches increased substantially after the Coast Guard closed its LORAN station at this site in 1979. As has been the case elsewhere, human disturbance was a significant factor affecting the seal haul-out patterns on the Island. This section of the DEIS should note that most seals now using Tern Island are adults and subadults, other than nursing females and pups. While a few births occur on Tern Island, most pupping at the atoll occurs on East, Trig, and Whaleskate Islands. This indicates that there is some segregation by age and sex in seal distribution and haul-out patterns among the various islands at French Frigate Shoals. As noted below, this distribution may be an important factor in assessing effects of the proposed action on pup production.

Finally, this section should also note that radio-tracking studies indicate that the principal seal foraging area lies along the northern edge of the atoll and that Tern Island is the closest haul-out site to this feeding area. As such, Tern Island may be a particularly important haul-out site for the atoll's seal colony.

Page 3-161, Section 3.3.1.6.2, Affected Environment: This section states that Tern Island was used as a LORAN station from 1952 to 1959 by the Coast Guard. This should be corrected to note that the Coast Guard maintained its LORAN station on Tern Island until 1979, rather than 1959.

Page 4-128 to 4-131, Biological Resources -- Niihau: This section discusses potential impacts on Hawaiian monk seals from a continuation of existing small-scale troop landing exercises on Niihau and from construction and operation of missile launching facilities and other facilities under the proposed action. It indicates that, with mitigation measures, potential impacts on Hawaiian monk seals from these activities should be negligible. Mitigation measures identified in this section include brief surveys of beaches for seals before landing exercises, monitoring beaches before the landing of construction equipment and materials, and restricting personnel to facility sites.

As indicated above, the frequency that seals haul out at different beaches on Niihau and the relative importance of different haul-out sites are not discussed in the DEIS. Thus, the importance of landing exercise areas and proposed launch sites for monk seals is not clear. In addition, while the identified mitigation measures appear helpful and appropriate, brief surveys of landing beaches immediately before a landing exercise or equipment delivery may not ensure that seals are not present at landing beaches or in adjacent waters. Therefore, if it has not already been done, the Marine Mammal Commission recommends that the Navy consult with the National Marine Fisheries Service to determine (1) whether additional baseline and other monitoring studies should be undertaken to determine

seal haul-out patterns at landing exercise areas and proposed launch sites, and (2) whether beach survey procedures and other mitigation measures are likely to be adequate to ensure that seals using Niihau would not be adversely affected by landing exercises and the proposed construction and operation of launch facilities.

Page 4-165, Section 4.3.1.3.2.1, Construction: This section discusses possible biological impacts from proposed dredging and construction activities on Tern Island. It notes that monk seals, sea turtles, and seabirds would be adversely affected by noise and human activity. The Commission agrees with this conclusion. As a related matter, it should be noted that it took several years for seal numbers at Tern Island to reach their present level after the Coast Guard closed its LORAN station in 1979 and after human activity was strictly controlled by the Fish and Wildlife Service. If construction disturbance displaces seals to other areas of French Frigate Shoals and subsequent return of seals to Tern Island is impeded by periodic disturbance from missile launch activities, a long-term redistribution of seals at French Frigate Shoals could occur. This, in turn, would increase the number of adult seals present at preferred pupping beaches on East, Trig, and Whaleskate Islands and increase the number of pups and juveniles injured or killed by adult male aggression. Such potential impacts should be noted in this and the following section on operational impacts.

In addition, possible measures that could or would be undertaken to mitigate noise and disturbance impacts are not identified in this section. Presumably, such measures would be developed in consultation with the National Marine Fisheries Service and the Fish and Wildlife Service as specific plans for construction are developed. The additional consultation steps that would be taken to develop such specific mitigation measures as may be needed should be identified in this section.

This section also notes that dredging could increase the abundance of ciguatoxic dinoflagelates that are believed to have been responsible for a monk seal die-off at Laysan Island in 1978. The section concludes, however that, because dredging activity would be localized, dredging is not expected to jeopardize monk seal survival. The basis for this conclusion is unclear. The DEIS does not identify the amount of dredging that may be needed. Given the size of the existing channel and the size of the MATSS vessel that might be stationed there, it seems that the amount of dredging could be significant. In addition, we note that high levels of ciguatoxins have been recorded at Midway Atoll and that, while the cause of these high levels is unclear, the dredging at that atoll has been suggested as a contributing factor. It therefore would seem more accurate to note that the potential effect of dredging activity is uncertain but could be significant.

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Page 4-165 to 4-167, Section 4.3.1.3.2.2, Operations: This section discusses possible impacts of noise and human activity associated with missile launches at Tern Island on Hawaiian monk seals and other biological resources. It concludes that launch noise and down range sonic booms could cause seals to flee into the water placing pups and juveniles at risk of shark predation. The section concludes that, given the limited number of launches (four per year), the short-term nature of launch events, and the implementation of restrictions on the activities of project personnel, impacts are not expected to jeopardize monk seals.

Predicting the impact of missile launches at Tern Island on monk seal haul-out patterns is a difficult task that is frought with uncertainty. There is every reason to believe, however, that using Tern Island as a missile launch site could cause significant, unavoidable, adverse impacts on Hawaiian monk seals. Because of the small size of Tern Island, a substantial portion of the Island's haul out beaches would, of necessity, be within the launch hazard area and in very close proximity to the launch platform. While the DEIS notes that exposure to noise could cause seals to flee into the water, other factors, such as bright light, and perhaps rocket exhaust and ground vibrations, also could have impacts and should be considered. In the Commission's opinion, these factors would almost certainly force seals into the water and several such events per year would result in at least some additional mortality as a result of pups being crushed by fleeing adults, shark predation, and/or other factors. In addition, pre- and post-launch activities could cause disturbance of seals. Even with mitigation measures, it seems doubtful that launches could be conducted without frightening at least some seals into the water.

While an individual launch event may not result in the death of any monk seals or any long-term effects on monk seal haul-out patterns, the Commission does not believe that it can be stated with any certainty that four events per year would not cause such effects, particularly if seals had already been displaced from the island during the construction phase. Moreover, on page 2-48, the DEIS indicates that the proposed testing program could involve 10 or more flights per month. While every test may not involve launches at Tern Island, this level of testing suggests that more than four launches per year from Tern Island may be possible. Given these possibilities, the Marine Mammal Commission recommends that the conclusions in this section be revised to indicate that long-term adverse impacts on the French Frigate Shoals monk seal colony are likely. In any event, statements in the DEIS indicating that the proposed action is not expected to jeopardize Hawaiian monk seals seem premature since the National Marine Fisheries Service has not yet completed its analysis of the potential risk of jeopardy to this species pursuant to section 7 of Endangered Species Act.

10

Page J-7, Summary of the Marine Mammal Protection Act: The summary of the Marine Mammal Protection Act in Appendix J does not clearly identify or describe the provisions of the Act most relevant to the proposed action. In the first sentence, for example, the summary should indicate that, subject to certain exceptions, the Act establishes a moratorium on the taking and importation of marine mammals. The second sentence is not germane to the issues presented by the proposed action and seems to be an odd choice for inclusion in such a truncated summary. Rather, it would be more appropriate to note exceptions to the taking prohibition that may come into play under the proposed action, such as section 101(a)(5), which allows the National Marine Fisheries Service and the Fish and Wildlife Service to authorize the incidental taking of small numbers of marine mammals in certain instances, or section 104(c)(3), which governs the taking of marine mammals for purposes of scientific research.

I hope these comments and recommendations are helpful. If you have any questions, please call.

Sincerely,

John R. Twiss, Jr.
Executive Director

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1118
23 OCT 1998

John R. Twiss, Jr., Executive Director
Marine Mammal Commission
4340 East-West Highway
Room 905
Bethesda, MD 20814

Dear Mr. Twiss:

Thank you for your comments on the Draft Environmental Impact Statement (EIS) for the Pacific Missile Range Facility Enhanced Capability. We appreciate the insight and expertise your office brings to bear on issues relating to monk seals and other marine mammals in areas affected by current or proposed activities at PMRF.

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives. Even though we have removed the Tern Island and Johnston Atoll alternatives from consideration, we felt it worthwhile to address concerns you raised in your letter. Please find responses to your specific comments below.

We have included in Section 3.3.1.3.2.4 of the EIS the information you provided concerning the causes of pup mortality in the French Frigate Shoals and the effect of human presence on the monk seal population at Tern Island. We have further expanded the analysis of impacts on the monk seal in Section 4.3.1.3.2.2 of the EIS to indicate that if seals were displaced from Tern Island by construction activities and increased human presence, their return could be deterred by the periodic launch activities. We have noted that these activities could result in increased pup mortality from shark predation and increased male aggression at other haul out areas, with adverse impacts to monk seals.

Responses to Specific Comments

Page ES-3, Fourth Complete Paragraph The Executive Summary has been revised to indicate that Tern Island and Johnston Atoll have been eliminated as proposed action sites in the EIS.

Pages 2-45 to 2-52, Section 2.3, Proposed Action Alternative: Due to the dynamic nature of the TMD program and testing to support it, it is not possible to provide more specific numbers of test flights for each location. However, Sections 2.3.1.3 and 2.3.4 have been revised to more clearly state that mobile and aerial platforms are the preferred options.

Pages 2-54 to 2-57, Section 2.3.1.3.2, Mobile Platform Sea-Based Target Preparation: The EIS clarifies the proposed use of the MATSS, which would not be anchored to the ocean floor. AEGIS cruisers are not configured to accommodate target missile launches. Rather, they are specially designed to launch the STANDARD Missile, which is the Navy's TBMD missile.

Page 2-61, Last Complete Paragraph: The precise number of people and period of time required for launch activities is not available at this time. However, we believe the numbers and approximate time period provided in the Draft EIS are sufficient to allow an analysis of the potential impacts from their presence. Tern Island and Johnston Atoll have been eliminated as proposed action sites in the EIS.

Page 2-108, Table 2.5.3, Summary of Environmental Impacts Tern Island and Johnston Atoll have been eliminated as proposed action sites in the EIS.

Page 3-34, Hawaiian Monk Seals: As noted above, Section 3.3.1.3.2.4 has been revised to include the information you have provided concerning the status and threats to the Hawaiian monk seals. Additionally, Tern Island and Johnston Atoll have been eliminated as proposed action sites in the EIS.

Page 3-135, Section 3.2.1.3.2.2, Threatened and Endangered Species: The principal impact to seals would be from landing activities, as discussed in Section 4.2.1.3.2 of the Draft EIS. Mitigations to avoid these impacts are identified in Section 4.2.1.3.2.2, and include monitoring the beaches for the presence of monk seals and delaying landing until their departure or conducting landings elsewhere if possible. We have no additional data beyond that already included in the EIS, regarding which beaches are most often used, or their frequency or trend of use. Collecting such data would most likely involve locating a trained biologist on Niihau for an extended period of time which would have to be agreed to by the landowner. The presence of additional personnel on Niihau would have cultural implications which would need to be evaluated. However, we intent to consult with residents of Niihau concerning specific sites which have been frequented by monk seals.

During operations involving beach landings, a Navy or Niihau Ranch representative will survey beach areas for nesting turtles or monk seals. In cases where monk seals are observed, efforts would be made to divert to an alternative landing site. Your suggestion of consulting with Niihau elders on the turtle nesting season is a good one and will be recommended.

Page 3-159, Section 3.3.1.3.2.3, Special Habitats: This section has been clarified to note that the designated area of critical habitat includes beaches.

Page 3-159, Section 3.3.1.3.2.4, Threatened and Endangered Species: This section has been revised to reflect the information you have provided concerning the reasons for the decline in the monk seal population and seal distribution and haul-out patterns among the various islands of the French Frigate Shoals.

Page 3-161, Section 3.3.1.6.2, Affected Environment: This section has been corrected in the EIS to indicated that the LORAN station was operated until 1979.

Page 4-128 to 4-131, Biological Resources – Niihau: As indicated above, the Navy will continue to consult with NMFS to determine any additional mitigation measures that are appropriate to avoid impacts to monk seals and other marine mammals in the areas that will be used for Navy activities. Additionally, consultation with NMFS has indicated their desire to obtain population data for monk seals on Niihau. The Navy is considering obtaining this data from the residents of Niihau using NMFS protocol.

Page 4-165, Section 4.3.1.3.2.1, Construction: Tern Island and Johnston Atoll have been eliminated as proposed action sites in the EIS. As noted above, information relative to the status of the monk seal at French Frigate Shoals and the potential impacts of construction and launch activities has been included in the EIS to preserve this work. As you suggest, specific mitigation measures would be developed in consultation with NMFS and USFWS as construction plans are developed to supplement those mitigation measures identified in the Draft EIS. The Draft EIS acknowledges the potential for dredging to increase the incidence of ciguatera and the possible adverse effects on monk seals. The EIS has been revised to indicate that biological and geological surveys as well as supplemental analysis would occur in consultation with NMFS and USFWS prior to dredging activities.

Pages 4-165 to 4-167, Section 4.3.1.3.2.2, Operations: Tern Island and Johnston Atoll have been eliminated as proposed action sites in the EIS. As noted above, the EIS has been revised to reflect your concerns about the effects of launch preparation and activities on the monk seal. We are currently consulting with NMFS concerning these issues. The number of four launches per year from Tern Island is an upper limit. The actual number of launches would likely be less than this.

Page J-7, Summary of the Marine Mammal Protection Act: The summary of the Marine Mammal Protection Act in the EIS has been revised as you suggested.

Again, we appreciate your interest in the EIS process and the insights and expertise you have provided, particularly with respect to monk seal issues in the Hawaiian Islands.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0296

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P-W-0141

University of Hawai'i at Mānoa

Ethnic Studies Department
1859 East-West Road • Room 115 • Honolulu, Hawai'i 96822
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April 25, 1998

TO: VIDA MOSSMAN
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Kaua'i, Hawai'i 96752-0128

FROM; DAVIANNA POMAIKA'I MCGREGOR
Associate Professor

SUBJECT: DRAFT ENVIRONMENTAL IMPACT STATEMENT
PACIFIC MISSILE RANGE FACILITY

Aloha. Thank you for the opportunity to review and forward comments on the 1998 EIS for the Pacific Missile Range Facility.

Having read it, I have the following points to raise for inclusion:

1. "Fake Island" Naval Gunfire Scoring System:
(Table 2-11; p. 2-14, 2.2.1.4.4; 2.2.1.4.9.1)
To the Hawaiian people it is arrogant, insulting, insensitive, and unacceptable to use an island in the shape of Kaho'olawe for the virtual reality "Fake Island." The virtual reality island should be reconfigured to represent something fake. The island of Kaho'olawe, Kohemalamalama o Kanaloa is recognized in state and federal law and by the Native Hawaiian people as a sacred island. It is a desecration to the kupuna and makua who struggled so hard, even gave their lives, to stop the bombing of the island in real life, only to have it continue to be used as a bombing and ordnance target in virtual reality.

2. Kamokala Magazine:
(p. 3-124; p. 4-111)
As a Leina-a-ka-uhane the magazines should be phased out, not expanded. The cliff should be respected as sacred burial grounds.

3. Ni'ihau:
(p. 3-133 to p.3-145; p. 4-124 to p.5-156; Appendix G)

Some outstanding issues which remain to be addressed are:
A. Water Consumption:
How much water with the PMRF project consume. How will this affect the availability of water on the island for the residents? Will PMRF develop water for the project? ? Will PMRF develop other water catchment systems? Will water be barged in?

McGregor/1

An Equal Opportunity/Affirmative Action Institution

It is noted on p. 4-156 that the landing strip can serve as a water catchment. Will it serve this purpose to reduce the burden on the island's resources. If so, will the water be safe for human consumption? or intended for fire prevention? or both?

B. Fire Plan:
It says that a fire plan needs to be developed. What will be the elements of the fire plan? Will the people of Ni'ihau be employed to implement the fire plan? This would be a potential area of training for the Ni'ihau residents and they could be employed for the duration of the launch preparation and implementation period.

C. Nesting of Turtles and Presence of Monk Seals
The EIS states that landing craft bringing in supplies for the construction would destroy turtle nests and could disrupt the monk seals. Landing craft should be banned from the beaches where the turtles nest, during the nesting and hatching season. At Mo'omomi Moloka'i it is May through September. Could ask the Ni'ihau elders for the nesting and hatching months for Ni'ihau and prohibit activities that would disrupt the nesting and hatching patterns of these endangered species on Ni'ihau during this important season.

D. Generators:
Don't know how loud the generators will be, but they should not be located along the beach. The loud noise would adversely impact upon the turtles and the monk seals activities, especially the turtle nesting.

E. Sewage:
Issue of sewage is not addressed. What kind of toilets will be used and what will happen to them upon completion of the project? Will PMRF bring in and maintain their own solar powered composting toilets?

F. Protocol:
The protocol is excellent. Might consider adding a few points to better protect the residents and the cultural and natural resources of the island:

The protocol clearly states that nothing shall be removed from the island. The protocol should also make it clear that personnel should not fish or gather marine or terrestrial resources for consumption while on the island.

The protocol acknowledges the Ni'ihau Ranch Government Point of Contact and the Ni'ihau Ranch Manager. This empowers the landowner. The residents, the hoa'aina of the island should also be empowered as a whole or through a committee. The role of the hoa'aina council or group of residents would be to:

(1) provide a base line study of the natural and cultural resources of the area to be affected;
(2) conduct ongoing monitoring of the natural and cultural resources. This should include testing if the fishe and marine resources are safe for consumption or if there is any fallout that might contaminate the resources.
(3) if warranted, be able to halt operations and enter into discussions and negotiations with the landowner and the Navy to remediate problems that might arise;
(4) if warranted, cancel the use agreement, in consultation with the landowner and the Navy.

McGregor/2

G. Mitigation:
(4.2.1.4.2 and 4.2.1.10.2.2)
There should be a base line assessment of the cultural and natural resources in the area to be used by PMRF. This should be done by the elders and members of the community. The elders and members of the community should select monitors to periodically assess any adverse impacts upon the natural and cultural resources by PMRF operations. The community needs to Maka'ala - be alert, be on guard of the changes which might adversely develop.and ruin the cultural and natural resources and way of life on the island. But, more importantly they need to be recognized that as the hoa'aina of the island that they should be empowered to halt operations if it is warranted.

The EIS states on p. 4-150 that cultural sensitivity training to off-island personnel who may come into contact with Ni'ihau residents **could** also be provided. This should be provided and it should be designed and presented by members of the Ni'ihau community.

The EIS states on p. 4-150 that the number of Niihau residents employed in construction work could be maximized by technical skill training. **A training program should be required.** It should be a condition of the agreement allowing PMRF to operate on Ni'ihau. For the clean up of Kaho'olawe, training of Hawaiians in the technical skills needed to work in the clean up is being coordinated by the private contractor, Alu Like, and the county governments. An appropriate technological skills and vocational education program can be designed for Ni'ihau residents. The program should be started as soon as possible, so that Ni'ihau residents will be ready to work when the project starts. These skills will continue to be useful to the Ni'ihau residents for other on-island, non-military projects as well.

4. Land Title, Appendix E:

The conclusions reached in this Appendix are incorrect.

Public Law 103-150 does call into question federal title to the Crown and Government Lands of the Kingdom of Hawai'i which are now called the Ceded Public Lands Trust.

Native Hawaiians are the beneficiaries of the lands which the State of Hawai'i will lease and provide an easement for the Pacific Missile Range Facility. Native Hawaiians should have input into the decision to lease or provide and easement to the Pacific Missile Range Facility. The Hawai'i State Constitution Article XII. Section 4 states that

> The lands granted to the State of Hawai'i by Section 5(b) of the Admission Act, excluding therefrom land defined as "available lands" by Section 203 of the Hawaiian Homes Commission Act 1920, as amended, shall be held by the state as a public trust for native Hawaiians and the general public.

The "available lands" referred to are under a trust for Native Hawaiians of one-half the ancestry of the peoples who inhabited the Hawaiian Islands prior to 1778. The ceded lands granted to the State of Hawai'i by Section 5(b) also include the waters and islets within the 3 mile boundary of the State of Hawai'i. Native Hawaiians are also beneficiaries of these ocean areas used by the Pacific Missile Range Facility.

The issue of whether the Hawaiians have a valid challenge to the title claimed by the State of Hawai'i to the ceded lands is in the Circuit Court of the State of Hawai'i in Office of Hawaiian Affairs vs. Housing Finance and Development Corporation (Civil No. 94-4207-11). Thus far, Judge Daniel Heely has refused to grant the State of Hawai'i summary judgment in the case, stating,

> This Court concludes that the life of our land would most assuredly not be filled with righteousness if the beneficiaries of our public land trust were prevented from coming to court to challenge how their lands are being handled by those responsible for overseeing this trust." (see attached)

If the State's title to the so-called ceded public lands can be challenged, so can the title claimed by the federal government.

Finally, the Ni'ihau community and the landowner should be supported in efforts to seek more creative ways to stimulate community based economic development. We are striving to have Kaho'olawe become what Ni'ihau already is - a cultural reserve for the perpetuation of the living culture of our Hawaiian people. The community should be encouraged to get planning monies from charitable trusts and foundations or the Office of Hawaiian Affairs to conduct strategic planning for their island's future. Can Ni'ihau gain a conservation status or a charitable trust status to exempt the landowners from property taxes so that they don't feel like the military is the best economic alternative?

Ultimately, it is the people of Ni'ihau who will bear the kaumaha or burden of this military development. However, Ni'ihau is a cultural treasure of all Hawaiians and we all share the burden and the responsibility for positive change.

1ST CIRCUIT COURT
STATE OF HAWAII
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CLERK

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IN THE CIRCUIT COURT OF THE FIRST CIRCUIT

STATE OF HAWAII

OFFICE OF HAWAIIAN AFFAIRS, et al.,	)	CIVIL NO. 94-4207-11 (Declaratory Judgment)
Plaintiffs,	)	ORDER DENYING DEFENDANTS' MOTION FOR PARTIAL SUMMARY JUDGMENT AND MOTION FOR RULE 54(b) CERTIFICATION FILED 12/15/95
vs.	)	
HOUSING FINANCE & DEVELOPMENT CORPORATION, et al.,	)	
Defendants.	)	Heard: April 2, 1996 10:30 a.m.
	)	Before: JUDGE DANIEL G. HEELY
	)	No Trial Date Set

I do hereby certify that this is a full, true, and correct copy of the original on file in this office.

ORDER DENYING DEFENDANTS' MOTION
FOR PARTIAL SUMMARY JUDGMENT AND
MOTION FOR RULE 54(b) CERTIFICATION FILED 12/15/95

Defendants' Motion For Partial Summary Judgment and Motion For Rule 54(b) Certification filed December 15, 1995 came on for hearing before the Honorable DANIEL G. HEELY on April 2, 1996. SHERRY P. BRODER, WILLIAM MEHEULA, HAYDEN ALULI, and KAWIKA LIU appeared on behalf of the Plaintiffs; Plaintiff Trustees CLAYTON H. W. HEE, MOANIKE'ALA AKAKA, ABRAHAM AIONA, and SAMUEL KEALOHA, and Plaintiffs JONATHAN KAMAKAWIWO'OLE OSORIO, CHARLES KA'AI'AI and KEOKI MAKA KAMAKA KI'ILI appeared; and SONIA FAUST, JOHN WONG, CYNTHIA CHARLTON and CELIA JACOBY appeared on behalf of the Defendants. The Court having carefully considered said motion, the memoranda, affidavits, exhibits, records relating thereto, and the arguments of counsel, makes the following findings and conclusions of law:

1. Rule 56(c) of the Rules of Civil Procedure limits the summary judgment remedy to situations when (a) there is no genuine issue of material fact and (b) it is clear that the movant is entitled to judgment as a matter of law.

2. When a court reviews a motion for summary judgment, the evidence must be viewed in the light most favorable to the non-moving party. Panar v. Americana Hotels, Inc., 65 Haw, 370, 652

P.2d 625 (1982).

3. Plaintiffs' claim in the present case is that Defendants should not be permitted to sell, alienate, or otherwise transfer lands that derive from the "ceded lands"--i.e., the lands that were "ceded from the Republic of Hawaii to the United States in 1898--(a) because these lands were illegally taken without compensation or consent from the Kingdom of Hawaii pursuant to the illegal overthrow in 1893 and (b) because these lands are now part of a public land trust which lists the Native Hawaiian people as one of the principal beneficiaries of this trust.

4. The United States Congress has issued the following formal findings in the Public Law 103-150 (1993), entitled "To Acknowledge the 100th Anniversary of the January 17, 1893 Overthrow of the Kingdom of Hawaii, and to Offer an Apology to Native Hawaiians on Behalf of the United States for the Overthrow of the Kingdom of Hawaii," which was signed by President William Clinton on November 23, 1991:

> "Whereas the Republic of Hawaii also seeded 1,800,000 acres of ground government and public lands of the Kingdom of Hawaii without the consent of or compensation of the native Hawaiian people of Hawaii or their sovereign government . . ."
>
> "Whereas the indigenous Hawaiian people never directly relinquished their claims to their inherent sovereignty as a people or over their national lands to United States, either through their monarchy or through a plebescite or referendum . . ."
>
> "Whereas the native Hawaiian people are determined to preserve, develop and transmit to future generations their ancestral territory, and their cultural identity in accordance with their own spiritual and traditional beliefs, customs, practices, language and social institutions."

This Resolution concludes by acknowledging the historical significance of the "illegal overthrow of the Kingdom of Hawaii on January 17, 1893," recognizing the importance of the ceded lands to the Native Hawaiian people, and urging that efforts be undertaken "to support reconciliation efforts between the United States and the Native Hawaiian people."

5. Recent Hawaii Supreme Court decisions have recognized and reaffirmed that Native Hawaiians have extremely important cultural, religious, social, and economic interests in lands throughout the Hawaiian islands. See, e.g., Public Access Shoreline Hawaii v. Hawaii County Planning Commission, 79 Haw. 425, 903 P.2d 1246 (1995), Pele Defense Fund v. Paty, 73 Haw. 578, 837 P.2d 1247 (1992), Ahuna v. Department of Hawaiian Homelands, 64 Haw. 327, 640 P.2d 1161 (1982).

6. A letter from the former Attorney General to the Chairperson of the Office of Hawaiian Affairs dated September 23, 1994, recognizes the claims of Native Hawaiians that are being asserted with respect to the ceded lands.

7. The Court is persuaded that cases involving American Indians are relevant in demonstrating that Defendants' motion for summary judgment should not prevail. Among the relevant cases are Fort Berthold Reservation v. United States, 390 F.2d 686 (Ct.Cl. 1968); Lane v. Pueblo of Santa Rosa, 249 U.S. 110 (1919); Chippewa Indians v. United States, 301 U.S. 358 (1937); United States v.

Creek Nation, 295 U.S. 103 (1935); Pyramid Lake Paiute Tribe v. Morton, 354 F.Supp. 252 (D.D.C. 1973); Shoshone Tribe v. United States, 299 U.S. 476 (1937); and Choate v. Trapp, 224 U.S. 665 (1912).

8. Because the State of Hawaii is the trustee of these ceded lands and has a trust relationship with the Native Hawaiian people, the State has important responsibilities that must be followed in administering this trust corpus. See, e.g., Ahuna, supra.

9. The Court concludes that the present claim is analogous to the claim presented in Kapiolani Park Preservation Society v. City and County of Honolulu, 69 Haw. 569, 751 P.2d 1022 (1988), where the Hawaii Supreme Court in a powerful opinion written by Justice Padgett reaffirmed that the courts must be open to beneficiaries who seek to protect their interests in litigation involving public trusts.

10. The Court further concludes that the present claim must be evaluated in light of the entire sweep of history in Hawaii, because the development of law is an ongoing process; as U.S. Supreme Court Justice Oliver Wendell Holmes explained: "The life of the law has not been logic, it has been experience." O.W. Holmes, The Common Law 1 (1923).

11. If this Court were to grant Defendants' motion for summary judgment, it would close the courthouse door to the beneficiaries of this trust and prevent the persons for whom the trust has been established from challenging the disposition of

lands that are their very birthright.

12. The Court notes that Defendants' motion for summary judgment is inconsistent with the State Motto of the State of Hawaii, which is imprinted in the seal of the State of Hawaii and included in each volume of the Hawaii Revised Statutes: "Ua Mau Ke Ea O Ka Aina I Ka Pono." This Court concludes that the life of our land would most assuredly not be filled with righteousness if the beneficiaries of our public land trust were prevented from coming to court to challenge how their lands are being handled by those responsible for overseeing this trust.

13. With respect to Defendants' request for Rule 54(b) certification, the Court finds and concludes that granting this relief at this time would not be likely to lead to a more speedy resolution of this litigation. See Mason v. Water Resources Intern., 67 Haw. 510, 694 P.2d 388 (1985), and Jenkins v. Cades Shutte Fleming and Wright, 76 Haw. 115, 869 P.2d 1334 (1994).

NOW THEREFORE, IT IS HEREBY ORDERED, ADJUDGED AND DECREED that:

1. Defendants' Motion For Partial Summary Judgment is denied; and

2. Defendants' request for certification under Rule 54(b) is denied.

DATED: Honolulu, Hawaii, JUL 23 1996.

FIRST CIRCUIT COURT STATE OF HAWAII SEAL

DANIEL G. HEELY
Judge of the above-entitled Court

9-64

APPROVED AS TO FORM:

MARGERY S. BRONSTER
Attorney General
SONIA FAUST
JOHN WONG
CELIA I. JACOBY
CYNTHIA D. CHARLTON
Deputy Attorneys General

RE: Office of Hawaiian Affairs, et al. vs. Housing Finance Development Corporation, Civil No. 94-4207-11; Order Denying Defendants' Motion For Partial Summary Judgment and Motion For Rule 54(b) Certification Filed 12/15/95

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0917
23 OCT 1998

Ms. Davianna Pomaikaʻi McGregor
Ethnic Studies Department
University of Hawaii at Manoa
1859 East-West Road
Room 115
Honolulu, HI 96822

Dear Ms. McGregor:

Thank you for your comments regarding the PMRF Enhanced Capability Environmental Impact Statement.

1. Fake Island Naval Gunfire Scoring System

While the shape of the computer-generated island used for training exercises at PMRF resembles the shape of Kaho'olawe, no insult was intended. The shape of the Naval Gunfire Scoring System (NGSS) was created to be compatible with existing software and procedures. This allowed the Navy to minimize costs.

2. Kamokala Magazine

Under the proposed action, two new magazines would be built in an area fronting Kamokala Ridge. To date, Kauai archaeologists and elders have indicated to us that the Leina-a-ka-uhane is not in the area of the magazines, but it should be noted that no modifications to the World War II-era man-made caves or the ridge itself are being proposed.

3. Niihau

A. Water Consumption

Water consumption related to activities should be minimal; primarily for consumption by workers, maintenance, and fire fighting. Water for these types of activities would be barged to Niihau with no impact on island reserves. Past surveys of Niihau suggest that fresh ground water sources are extremely limited with high salinity. There are no plans to develop on-island water sources; however, the proposed airstrip could serve as a catchment system depending on how it is built. Catchment water could be treated for drinking as well as for other uses. Alternatively, the Navy in consultation with USGS, the landowner, and the Niihau residents could consider alternative treatment techniques such as solar distillation to provide minimum water supplies from saline sources. This approach

could provide supplemental water resources for residents when Navy activities were not occurring.

B. Fire Protection

While fire protection plans will vary depending on the type of activities conducted, basic elements could include vegetation clearing, cutting fire breaks, manning water trucks, and actual fire fighting if required. Typically, a PMRF helicopter is airborne with a fire bucket to assist during launch activities. It is anticipated that Niihau Ranch would be contracted to support some, if not all, of these activities.

C. Nesting of Turtles and Presence of Monk Seals

During operations involving beach landings, a Navy or Niihau Ranch representative will survey beach areas for nesting turtles or monk seals. In cases where monk seals are observed, efforts would be made to divert to an alternative landing site. Your suggestion of consulting with Niihau elders on the turtle nesting season is a good one and has been added to Section 4.2.1.3.1.1. Additionally, consultation with NMFS has indicated their desire to obtain population data for monk seals on Niihau. The Navy is considering obtaining this data from the residents of Niihau using NMFS protocol.

D. Generators

All proposed sites for generators on Niihau have deliberately been set back well away from beach areas.

E. Sewage

Sewage deposition and use of solar powered composting toilets have been discussed with Niihau Ranch. While plans have not been finalized, as stated in Section 4.2.1.12.2 of the Draft EIS, some type of portable toilet will be used.

F. Protocol

Your proposed changes to the Niihau protocol have been taken under advisement and will be discussed with Niihau Ranch. While not specifically stated, proposed actions on Niihau are first discussed with the PMRF/Niihau liaisons and the Niihau Ranch Manager. We understand that there is a process for all decisions affecting Niihau that includes island residents. We envision continued dialogue with the Niihau owners and residents for the duration of programs using the island.

G. Mitigation

Your mitigation suggestions will be considered during development of recommendations for the Record of Decision.

Niihau elders assisted the Navy in identifying areas where Navy activities could occur. Cultural and natural resource surveys have been conducted with Niihau residents in these areas. Within these areas, as specific siting activities proceed, more detailed surveys will be conducted. An on-site archaeologist will consult with Niihau elders prior to and during construction. Should significant cultural or archaeological finds emerge, an alternate site will be considered.

We agree with your comments on Niihau sensitivity training prior to workers performing activities on the island. This is our current practice.

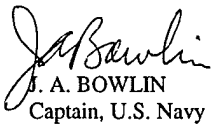
Although employment for Niihau residents cannot be guaranteed, it would seem reasonable that activities on Niihau would provide the residents with an opportunity for employment. Consideration will be given to working with local organizations that develop training programs.

4. Land Title

Your views on the history of land title in Hawaii are informative and have been noted.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your support and trust.

Sincerely,



J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0141

9-66

KAUA`I COMMUNITY COLLEGE
OFFICE OF CONTINUING EDUCATION AND TRAINING
University of Hawai`i

PACIFIC MISSILE RANGE FACILITIES ~~EXPANSION~~ ENHANCEMENT
TESTIMONY
Waimea Technology Center
April 25, 1998

My name is Barbara Bulatao-Franklin. I am a resident of Kekaha, Kaua'i, and I am here representing the administration of Kaua'i Community College, as its director of continuing education and training and the faculty members and students of our Trade ~~[redacted]~~ and Electronic Technology Divisions and our Apprenticeship Training Programs. We asked Dr. Francis Takahashi, assistant professor in electronic technology, to prepare our testimony. He is one of several faculty members from KCC who has worked directly with staff members at the Pacific Missile Range Facilities. Our testimony is in the form of an open letter addressed to Ms.

AN EQUAL EMPLOYMENT OPPORTUNITY/AFFIRMATIVE ACTION INSTITUTION
3-1901 Kaumuali`i Highway • Lihu`e, Kaua`i, Hawai`i 96766-9591 • Telephone (808)245-8234 • Fax (808)245-8271

Vida Mossman, Public Affairs ~~Director~~ Officers at PMRF. Quote:

"Dear Ms. Mossman:

We live in a time of ever accelerating technological change and increasing global competitiveness. If we ignore these events and choose to amble along at a leisurely pace into the new millennium, we will be overwhelmed by technologically more aggressive and competitive peoples and societies. Our economic and social well-being, in our island home, depends on our ability to compete at the global level. Only in doing so can we maintain the economic vitality which will allow us to control the future of the society that we live in.

Education and technology are the keys to this competitiveness and PMRF has long been a willing partner in supporting the growth of technology education at Kaua'i Community College. The development of the college in the

following areas were either driven by or made feasible because of the high technology presence of PMRF on Kaua'i.

Electronics Technology and the Technology Center: These centers of learning were developed to support high technology industries such as PMRF.

Solar Car Technology: PMRF has been the training and testing base for our solar car which finished 9th, 15th, and 8th in races on the mainland and Japan.

Electric Vehicle Technology: The College and PMRF along with Kaua'i Electric and the County are participants in the Kaua'i Electric Vehicle consortium.

Environmental Research & Aircraft Sensor Technology (ERAST): This high -tech project is here because of the initiative and support of PMRF. IN this time of budget restrictions by the state, this project has injected much

needed funding into the college and the scientists and engineers who travel here aid Kaua'i's lagging economy.

Pathfinder, the solar airplane moved its testing here because PMRF could provide the high-tech support. Our students gain valuable work experience on the project supporting flight operations.

Data Analysis: Our students also have the opportunity to support the scientific data gathering and analysis. Digitized images of the environment gathered by Pathfinder and other flight operations will make it possible for us to monitor agriculture and protect the native ecology of this state.

The Technology Center's participation in ERAST is helping us enhance our data acquisition, analysis and storage capability as well as our networking capability. This keeps

us abreast of the latest technology and raises the aspirations of our students who participate in this project. The project's monitoring of the environment is also increasing student-awareness of environmental problems in our fragile island environment.

Continuing Education and Training in High Technology: The college has developed non-credit training courses in digital electronics and fiber optics for PMRF and has participated in PMRF-funded networking courses. This mutually beneficial exchange enhances the level of technology education.

High Technology Jobs: PMRF offers a choice of technology-oriented jobs for our students whose interests lie in this area.

We must face the global challenges and step boldly into

the technology and information age of the 21st century. We are confident that PMRF will continue to be a supportive partner in this endeavor which will be beneficial to everyone in this state.

Sincerely, Francis Takahashi, PhD, Electronics Technology" Unquote

I would like to conclude by emphatically stating that Kaua'i Community College strongly supports the enhancement ~~expansion~~ proposal of the Pacific Missile Range Facilities.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0843
23 OCT 1998

Ms. Barbara Bulatao-Franklin
Office of Continuing Education and Training
3-1901 Kaumualii Highway
Lihue, Kauai, HI 96766

Dear Ms. Bulatao-Franklin:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We agree that a strong partnership with educational institutions is beneficial to both PMRF and its institutional partners. We look forward to continuing our positive relationship with the business, educational, and civic organizations on Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0167

9-69

Testimony of

SEIJI F. NAYA
Director
Department of Business, Economic Development, and Tourism

at the

PMRF Community Meeting
Saturday, April 25, 1998
Barking Sands, Kauai

in consideration of the proposed

Pacific Missile Range Facility Enhanced Capability

I am happy to be here this morning to provide testimony in support of the enhanced TBMD (theater ballistic missile defense) capabilities at PMRF.

State-of-the-art technologies are clearly vital for our national defense. We are very fortunate that Senator Inouye has been successful in bringing defense technologies to our state. In particular, this will not only expand Hawaii's already significant contributions to national security, but also sustain the vitality and strength of PMRF's programs. This will provide high quality and challenging employment for many Hawaii residents.

PMRF is a one-of-a-kind facility. Not only does it have cutting-edge technologies, but I understand that it is located in an ideal spot in the world. As a result, PMRF has a global comparative advantage in the testing and evaluation of air, submarine, surface, and even land-based weapon systems. We want to take advantage of this valuable resource by commercializing the utilization of technology in PMRF which holds

significant promise not only for Kauai, but for the entire state. My department looks forward to working with KEDB, PMRF, members of Kauai's private sector, and county officials in exploring commercial or dual-use applications that can create well-paying and challenging jobs in a broad range of industries.

As we are all aware, PMRF is already an important contributor to our local economy. Aside from the state and the county, PMRF is the second-single largest employer on Kauai, with over 800 workers in 1997 and generating more than $112 million in direct expenditures. This includes $46.3 million in paychecks for PMRF employees, $42.2 million in outside contracts, $7.7 million in visitor industry revenues, and millions more dollars for the support of construction and the purchase of local supplies and utilities. If we include indirect impacts, or secondary impacts of PMRF's activities, the facility's importance rises further accounting for the support of more than 2,100 jobs or 8.6% of all employment on Kauai, and approximately $11.2 million in State and County revenues.

The numerous technical job opportunities provided by PMRF demand high skill levels and pay commensurately high wages. This enables Hawaii's best and brightest to work on Kauai in a challenging high-tech environment. By providing well-paying, desirable jobs, PMRF also enables Hawaii's young people to return home to work and live closer to family and friends.

In many ways, the proposed upgrades at PMRF will help ensure that Hawaii will continue to sustain and expand these economic benefits.

First, this project will bring in additional federal funds for construction improvements amounting to more than $10 million. This implies contracts to local builders for facilities and infrastructure development at Barking Sands and on Niihau. There will also be positive impacts on tourism with additional official visitors to Kauai during the planning and testing phases. It is estimated that this will generate an additional $6 million in visitor industry revenues.

Expanded planning and operational support will also be required to facilitate additional launches for the program during the testing phase. This translates to additional engineering positions and project technicians amounting to several million dollars worth of contracts. In all, this will translate into over 300 new and secondary construction-related and visitor industry jobs.

Second, I understand that as part of the national trend in government downsizing, layoffs are anticipated for PMRF's contractor and existing employees. However, if the proposed improvements go forward, we would be able to save anticipated layoffs as Navy sponsors will be able to rehire these workers with salaries funded by this new program.

Third, the proposed upgrades will make PMRF the nation's premier training, testing and evaluation facility for research and development involving undersea, ocean surface, air, or space-based testing. Its capabilities will surpass that of all other national ranges. These expanded capabilities will have very positive ramifications in Washington, D.C., and

will help to attract other programs, commercial applications, and future business to our state.

Finally, the improvements at PMRF will allow the facility and its people to continue their support for social development activities in the local community. This includes volunteer efforts in programs such as Adopt-A-School, Toys for Tots, Adopt-A-Highway, the provision of search and rescue services, support for the Waimea Town Celebration, and various contributions of manpower and/or equipment for emergency community needs (e.g., recycling PMRF's used oil reserves to generate electricity for the island).

In sum, the proposed expansion of PMRF's operating capabilities is a win-win situation for the U.S. and Hawaii. It will enable the facility to remain a national leader in military training, testing, and evaluation. At the same time, residents will benefit from additional high-paying technology-based jobs and social benefits well into the 21st Century. I have said many times that we must look to technology-based development as an important key to the successful revitalization of our local economy. This program will significantly enhance Hawaii's high technology resources and capabilities. As such, I would strongly encourage all of you to support your community leaders in backing the proposed expansion at PMRF.

Thank you for the opportunity to testify on behalf of this initiative.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0844
23 OCT 1998

Mr. Seiji F. Naya
State of Hawaii
Department of Business
Economic Development, and Tourism
220 South King Street #1100
Honolulu, HI 96813-4541

Dear Mr. Naya:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support, on behalf of the Department of Business, Economic Development, and Tourism, for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We agree that a strong partnership with our neighbors in both technical and civic areas is beneficial to both Kauai and the larger Hawaiian community and the Navy. Congress has recognized the benefits of the technology base and extensive off-shore range area existing at PMRF in identifying it as the primary area to test the Navy's theater ballistic missile defense systems.

The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0170

KAUAI COMMUNITY COLLEGE
University of Hawaii

4-21-98

Vida Mossman
P.O. Box 128
Kekaha, HI 96752-0128

We live in a time of ever accelerating technological change and increasing global competitiveness. If we ignore these events and choose to amble along at a leisurely pace into the new millennium, we will be overwhelmed by technologically more aggressive and competitive peoples and societies. Our economic and social well-being, in our island home, depends on our ability to compete at the global level. Only in doing so can we maintain the economic vitality which will allow us to control the future of the society that we live in.

Education and technology are the keys to this competitiveness and PMRF has long been a willing partner in supporting the growth of technology education at Kauai Community College. The development of the college in the following areas were either driven by or made feasible because of the high technology presence of PMRF on Kauai.

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- Solar Car Technology: PMRF has been the training and testing base for our solar car which finished 9th, 15th, and 8th in races on the mainland and Japan.
- Electric Vehicle Technology: The College and PMRF along with Kauai Electric and the County are participants in the Kauai EV consortium.
- Environmental Research & Aircraft Sensor Technology (ERAST): This high-tech project is here because of the initiative and support of PMRF. In this time of budget restrictions by the state, this project has injected much needed funding into the college and the scientist and engineers who travel here aid Kauai's lagging economy.
    - Pathfinder, the solar airplane moved its testing here because PMRF could provide the high-tech support. Our students gain valuable work experience on the project supporting flight operations.
    - Data Analysis: Our students also have the opportunity to support the scientific data gathering and analysis. Digitized images of the environment gathered by Pathfinder and other flight operations will make it possible for us to monitor agriculture and protect the native ecology of this state.
    - The Technology Center's participation in ERAST is helping us enhance our data acquisition, analysis, and storage capability as well as our of networking capability. This keeps us abreast of the latest technology and raises the aspirations of our students who participate in this project. The project's monitoring of the environment is also increasing student-awareness of environmental problems in our fragile island environment.
- Continuing Education and Training in High Technology: The college has developed non-credit training courses in digital electronics and fiber optics for PMRF and has participated in PMRF-funded networking courses. This mutually beneficial exchange enhances the level of technology education.
- High Technology Jobs: PMRF offers a choice of technology-oriented jobs for our students whose interests lie in this area.

We must face the global challenges and step boldly into the technology and information age of the 21st century. I am confident that PMRF will continue to be a supportive partner in this endeavor which will be beneficial to everyone in this state.

Sincerely,

Francis Takahashi

Francis Takahashi, PhD
Electronics Technology

Distribution:
P. Cha, Provost
D. Kawate, Dean of Instruction
B. Bulatao-Franklin, Office of Continuing Education and Training
C. Yamamoto, Trade Technology Division Chair
R. Kouchi; Apprentice Coordinator
R. Matsumura, Electronics Technology

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0845
23 OCT 1998

Dr. Francis Takahashi
Electronics Technology
Kauai Community College
3-1901 Kaumualii Highway
Lihue, HI 96766

Dear Dr. Takahashi:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We agree that a strong partnership with educational institutions is beneficial to both PMRF and its institutional partners. We look forward to continuing our positive relationship with the business, educational, and civic organizations on Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0177

NORMAN MIZUGUCHI
PRESIDENT

ANDREW LEVIN
VICE PRESIDENT

LES IHARA, JR.
MIKE McCARTNEY
MAJORITY LEADERS

WHITNEY ANDERSON
MINORITY LEADER

FIRST DISTRICT
MALAMA SOLOMON

SECOND DISTRICT
WAYNE METCALF

THIRD DISTRICT
ANDREW LEVIN

FOURTH DISTRICT
ROSALYN H. BAKER

FIFTH DISTRICT
JOE TANAKA

SIXTH DISTRICT
AVERY CHUMBLEY

SEVENTH DISTRICT
LEHUA FERNANDES SALLING

EIGHTH DISTRICT
SAM SLOM

NINTH DISTRICT
MATT MATSUNAGA

TENTH DISTRICT
LES IHARA, JR.

ELEVENTH DISTRICT
BRIAN TANIGUCHI

TWELFTH DISTRICT
CAROL FUKUNAGA

THIRTEENTH DISTRICT
ROD TAM

FOURTEENTH DISTRICT
SUZANNE CHUN OAKLAND

FIFTEENTH DISTRICT
NORMAN MIZUGUCHI

SIXTEENTH DISTRICT
NORMAN SAKAMOTO

SEVENTEENTH DISTRICT
DAVID IGE

EIGHTEENTH DISTRICT
RANDY IWASE

NINETEENTH DISTRICT
CALVIN KAWAMOTO

TWENTIETH DISTRICT
BRIAN KANNO

TWENTY-FIRST DISTRICT
JAMES AKI

TWENTY-SECOND DISTRICT
ROBERT BUNDA

TWENTY-THIRD DISTRICT
MIKE McCARTNEY

TWENTY-FOURTH DISTRICT
MARSHALL IGE

TWENTY-FIFTH DISTRICT
WHITNEY T. ANDERSON

CHIEF CLERK
PAUL T. KAWAGUCHI

The Senate
The Nineteenth Legislature
of the
State of Hawaii

STATE CAPITOL
HONOLULU, HAWAII 96813

April 20, 1998

Ms. Vida Mossman
Pacific Missile Range Facility (PMRF)
Public Affairs Officer
P.O. Box 128
Kekaha, Hawaii 96752

Dear Ms. Mossman:

PMRF and its 800 plus employees have been involved community members, and vigilant stewards at Barking Sands for over 35 years. With an annual payroll of $45 million (the majority of which are civilian residents) it is fair to expect that like any other business PMRF needs to upgrade and modernize its business base to support and attract new programs. What is currently being proposed by the Navy is to do a $33 million "makeover" at PMRF to keep it technically capable of performing programs of national importance well into the next century, thus furthering its position as a catalyst for science and high technology on Kauai.

Given the fact that the U.S. Congress has mandated that Theater Missile Defense testing be conducted to develop a technically capable, cost-effective counter to current threat, and that this program would mean a $33 million upgrade to the future of PMRF on Kauai, we support the Navy's proposed enhancements.

Sincerely,

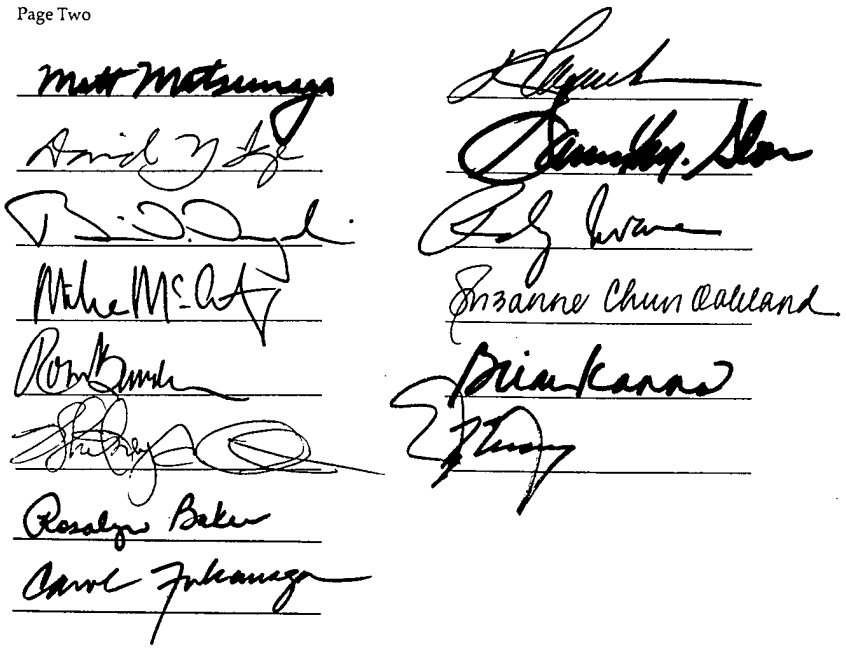
Sen. Avery B. Chumbley

Sen. Lehua Fernandes Sallings

State of Hawaii
Nineteenth Legislature
The Senate

9-74

Ms. Dida Mossman
Page Two



DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/0846
23 OCT 1998

The Honorable Avery B. Chumbley
The State Senate
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Dear Senator Chumbley:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0181

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0847
23 OCT 1998

The Honorable Matt Matsunaga
The State Senate
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Dear Senator Matsunaga:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0181a

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0848
23 OCT 1998

The Honorable David Y. Ige
The State Senate
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Dear Senator Ige:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0181b

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0849
23 OCT 1998

The Honorable Brian T. Taniguchi
The State Senate
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Dear Senator Taniguchi:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0181c

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0850
23 OCT 1998

Mike McCartney
The State Senate
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Dear Senator McCartney:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0181d

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0851
23 OCT 1998

The Honorable Robert Bunda
The State Senate
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Dear Senator Bunda:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0181e

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0852
23 OCT 1998

The Honorable Whitney Anderson
The State Senate
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Dear Senator Anderson:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0181f

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0853
23 OCT 1998

The Honorable Rosalyn H. Baker
The State Senate
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Dear Senator Baker:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0181g

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0854
23 OCT 1998

The Honorable Carol Fukunaga
The State Senate
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Dear Senator Fukunaga:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0181h

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0855
23 OCT 1998

The Honorable Joseph S. Tanaka
The State Senate
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Dear Senator Tanaka:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0181i

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0856
23 OCT 1998

The Honorable Sam Slom
The State Senate
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Dear Senator Slom:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0181j

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

9-80

IN REPLY REFER TO:
5090
Ser 00/ 0857
23 OCT 1998

The Honorable Randall Y. Iwase
The State Senate
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Dear Senator Iwase:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0181k

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0858
23 OCT 1998

The Honorable Suzanne Chun Oakland
The State Senate
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Dear Senator Oakland:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0181l

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0859
23 OCT 1998

The Honorable Brian Kanno
The State Senate
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Dear Senator Kanno:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0181m

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0860
23 OCT 1998

The Honorable Wayne Metcalf
The State Senate
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Dear Senator Metcalf:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0181n

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0861
23 OCT 1998

9-82

The Honorable Lehua Fernandes Salling
The State Senate
State Capitol
415 South Beretania Street
Honolulu, HI 96813

Dear Senator Salling:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0181o

P-W-C182

Bertha Kawakami

HALE O NĀ LUNAMAKA`ĀINANA

HOUSE OF REPRESENTATIVES • 14TH DISTRICT • WEST KAUAI & NIIHAU
415 SOUTH BERETANIA ST., ROOM 434 • HONOLULU, HI 96813-2407
PHONE: (808) 586-6280 • FAX: (808) 586-6281

April 27, 1998

To: Pacific Missile Range Facility
Attn: Vida Mossman

From: Rep. Bertha C. Kawakami

RE: Letter of Support

As the state representative for West Kauai and the island of Niihau, I wish to lend my positive support for PMRF and its continued presence at Barking Sands. In its capacity as a major employer and center for science and high technology, the importance of PMRF as it relates to the economy of Kauai cannot be overstated.

Ongoing technological advances require PMRF to modernize its resources to remain viable and as a capable testing site for both the military as well as for other programs of national importance. The proposed $33 million upgrade by the Navy is both a long-term investment and commitment to the future of PMRF on Kauai, and the critical role it plays in the defense readiness of our country's armed forces. The project's other critical role is the assistance it will provide in helping to revitalize Kauai's economy. Although economic benefits should not always outweigh potential impacts, environmental or otherwise, a thorough evaluation prior to testing and ongoing efforts to assess the project and educate the community at large will ease the minds of residents who may not be in favor.

Job opportunities in the science and technology fields are an essential component in the state's economic recovery, yet they are very limited on Kauai. The effect of this upgrade and the possible expansion of launch sites to Niihau will provide much more than just employment. As a stable source of jobs and income, PMRF will allow many local residents to remain in the communities in which they grew up. Local business and visitor industries will also benefit greatly.

As a responsible member of the greater Kauai community, PMRF has demonstrated its value to the local economy and become a source of pride for the Garden Island. This project deserves wide backing, and I am pleased to lend my voice in support.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0862
23 OCT 1998

The Honorable Bertha Kawakami
House of Representatives
State of Hawaii
415 South Beretania Street
Room 434
Honolulu, HI 96813-2407

Dear Ms. Kawakami:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0182

9-83

BENJAMIN J. CAYETANO
GOVERNOR
STATE OF HAWAII

KALI WATSON
CHAIRMAN
HAWAIIAN HOMES COMMISSION

JOBIE M. K. M. YAMAGUCHI
DEPUTY TO THE CHAIRMAN

STATE OF HAWAII
DEPARTMENT OF HAWAIIAN HOME LANDS
P. O. BOX 1879
HONOLULU, HAWAII 96805

P-W-0201

May 1, 1998

Ms. Vida Mossman
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

Dear Ms. Mossman:

Subject: PACIFIC MISSILE RANGE FACILITY ENHANCED CAPABILITY
Draft Environmental Impact Statement (EIS) dated 3 April 1998

The Hawaiian Homes Commission/Department of Hawaiian Home Lands (HHC/DHHL), State of Hawaii, owns over 15,086 acres of Hawaiian home lands located directly inland of the Pacific Missile Range Facility (PMRF). Please advise us if any Hawaiian home lands are within the boundaries of your restrictive easement area. Any restrictive easement overlap onto Hawaiian home lands would require HHC/DHHL approval.

A portion of the Kamokala Caves ordnance storage magazines (26 acres) is situated on Hawaiian home lands. A land exchange between the DHHL and the State Department of Land and Natural Resources (DLNR) is in progress to place all of the Kamokala Caves facility lands under ownership jurisdiction of the DLNR.

The area within the proposed restrictive easement encompasses approximately 2,000 acres of State ceded lands under sugarcane cultivation under DLNR management. Portions of payments for the PMRF restrictive easements over this area are due to the DHHL's Native Hawaiian Rehabilitation Fund (30% NHRF) and to the Office of Hawaiian Affairs (OHA 20%), in accord with 1978 amendments to the Hawaii Constitution.

The DHHL requests that the EIS clearly describe all potential dangers related to the project; especially the transport, storage and launching of missiles and explosives. Please keep the DHHL as a consulted party throughout the duration of this project.

Should you have any questions, call Darrell Yagodich of our Planning Office at 587-6425.

Aloha,

KALI WATSON, Chairman
Hawaiian Homes Commission

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

9-84

IN REPLY REFER TO:
5090
Ser 00/ 0957
23 OCT 1998

Mr. Kali Watson
Chairman
Hawaiian Homes Commission
Department of Hawaiian Home Lands
PO Box 1879
Honolulu, HI 96805

Dear Mr. Watson:

Thank you for your letter of May 1, 1998. Let me assure you that based on our records no Hawaiian home lands are included within the boundaries of the existing restrictive easement for the ground hazard area. The easement is identified as state document No. N627429.

Regarding the Kamokala Magazines, thank you for the update on the exchange. No acquisition of Hawaiian Home Lands is proposed at this time by the Navy for the restrictive easement related to the explosive safety quantity distance area.

The potential risks associated with the project have been described in Section 4.0 of the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement (EIS).

We will continue to consult with Department of Hawaiian Homelands throughout this project.

Chapter 4 of the EIS contains analysis of the potential dangers associated with the proposed action. Chapter 4 contains a separate section for each proposed location. Each proposed location section further discusses the consequences of the proposed action at those locations according to the impact on each resource area. These resource areas include air quality, biological, cultural, geology and soils, hazardous materials and waste, health and safety, land use, noise, socioeconomics, transportation, utilities, visual aesthetics and water. Further, description of target missiles is contained in Section 2.3.1. This section contains discussion of liquid fuels and transportation (Section 2.3.1.3.1), and hazard areas including booster drop zones and debris impact area (Section 2.3.1.3.4). Defensive Missile Systems are discussed in Section 2.3.2 including transportation.

We appreciate your interest in this important proposal and look forward to continued discussions with your office.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0201

P-W-0206

SENATOR AVERY B. CHUMBLEY
6th Senatorial District
South/East Maui & North Shore Kaua'i

Co-Chair
Judiciary Committee

Member
Economic Development
Transportation & Intergovernmental Affairs

The Senate
The Nineteenth Legislature
of the
State of Hawaii

April 16, 1998

Ms. Dida Mossman
Pacific Missile Range Facility (PMRF)
Public Affairs Officer
PO Box 128
Kekaha, HI 96752-0128

Dear ~~Ms. Mossman~~ DIDA:

I am writing to express my support for the enhancement of facilities at the Pacific Missile Range Facility (PMRF) at Mana, Kauai. As a Senator representing Kauai, I am well aware of the economic challenges that are currently facing Kauai residents. Thus, I am pleased to support this enhancement project which will bring much needed employment for area residents through the ensuing construction and additional staff hired to support the enhancements once they are completed.

Please contact me if you need further assistance from myself or my staff.

Sincerely,

Avery B. Chumbley, Senator
Sixth Senatorial District

STATE CAPITOL / 415 S. BERETANIA STREET, ROOM 228 / HONOLULU, HAWAII 96813
PHONE: (808) 586-6030 • FAX: (808) 586-6031 • E-mail: abc@aloha.net
TOLL FREE: MOLOKAI / LANAI 1-800-468-4644 Ext 66030 • MAUI: 984-2400 Ext 66030
KAUAI: 274-3141 Ext 66030 • HAWAII: 974-4000 Ext 66030

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9-85

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0863
23 OCT 1998

Mr. Avery B. Chumbley
Senator
State of Hawaii
415 S. Beretania Street
Room 228
Honolulu, HI 96813

Dear Senator Chumbley:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0206

P-W-025C

9-86

BENJAMIN J. CAYETANO
GOVERNOR

ROY S. OSHIRO
EXECUTIVE DIRECTOR

IN REPLY REFER TO:

98:PPE/1725

STATE OF HAWAII
DEPARTMENT OF BUDGET AND FINANCE
HOUSING FINANCE AND DEVELOPMENT CORPORATION
677 QUEEN STREET, SUITE 300
HONOLULU, HAWAII 96813
FAX (808) 587-0600

May 11, 1998

Ms. Vida Mossman
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Hawaii 96752-0128

Dear Ms. Mossman:

Re: Draft Environmental Impact Statement for the Pacific Missile Range Facility Enhanced Capability

Thank you for the opportunity to review the subject draft EIS.

We have no housing related comments to offer at this time.

Sincerely,

Roy S. Oshiro
Executive Director

HFDC

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0864
23 OCT 1998

Mr. Roy S. Oshiro
Housing Finance and Development Corporation
State of Hawaii
677 Queen Street
Suite 300
Honolulu, HI 96813

Dear Mr. Oshiro:

Thank you for your response to our request for comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0250

P-W-0259

BENJAMIN J. CAYETANO
GOVERNOR

KAZU HAYASHIDA
DIRECTOR

DEPUTY DIRECTORS
BRIAN K. MINAAI
GLENN M. OKIMOTO

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

IN REPLY REFER TO:
STP 8.8566

May 14, 1998

Ms. Vida Mossman
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Hawaii 96752-0128

Dear Ms. Mossman:

Subject: Draft Environmental Impact Statement (DEIS)
Pacific Missile Range Facility Enhanced Capability

Thank you for your transmittal requesting our comment on the subject DEIS.

Our comments are as follows:

1. The applicant should prepare a traffic assessment (TA) which addresses the impact additional traffic between Port Allen and the Pacific Missile Range (PMR) will have on the intersection of Waialo Road and Kaumualii Highway. The applicant should identify required mitigation measures including any sight distance requirements.

2. Chapter 264 HRS requires that a permit be obtained from our Highways Division Kauai District Office for the use of oversize and overweight vehicles on State highways.

3. Transporting of hazardous material over State highways must be coordinated with local fire, police, and DOT-Motor Vehicle Safety Office.

4. Extreme caution must be undertaken when traversing Route 550, which consists of Waimea Canyon Drive and Kokee Road.

5. Plans for construction within the State Highway right-of-way must be submitted to the Highways Division Kauai District office for review and approval.

6. All required roadway improvements must be provided at no cost to the State.

We appreciate the opportunity to provide comments.

Very truly yours,

KAZU HAYASHIDA
Director of Transportation

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0985
23 OCT 1998

9-88

Mr. Kazu Hayashida
Director of Transportation
State of Hawaii Department of Transportation
869 Punchbowl Street
Honolulu, HI 96813-5097

Dear Mr. Hayashida:

Thank you for your response to our request for comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

1. We believe that the impact on traffic will be minimal, as we would anticipate that we would transport materials from Port Allen to PMRF only very rarely. In any event, we will coordinate with the Kauai office of the Hawaii DOT. We believe that a traffic assessment for this intersection is not necessary due to the minimal increase in expected traffic volumes.

2.-3. We understand that permits are not required when military vehicles are used. In any event, any transport of hazardous materials over state highways will be coordinated with local fire, police, and DOT-Motor Vehicle Safety Office.

4. We will use extreme caution when traversing Route 550. Additionally, only 2 to 3 shipments a year would be required and they would occur during off-peak traffic periods.

5. No construction is planned within state highway right-of-way.

6. We do not foresee that any required roadway improvements will be required.

Thank you for your interest in this important effort.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0259

P-W-0279 00 B
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02 R
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HAWAII AIR NATIONAL GUARD
HEADQUARTERS 154 WING

PMRF ADMIN
98 MAY 21 AM 9:41

cy PAO

14 May 1998
PAO

MEMORANDUM FOR COMMANDING OFFICER, PMRF

FROM: 154th Air Control Squadron
P.O. Box 598
Kekaha, HI 96852

SUBJECT: Testimony in Support of Pacific Missile Range Facility Enhanced Capability EIS

1. The 126 members of the 154th Air Control Squadron (ACS), Hawaii Air National Guard, located on PMRF, support PMRF's enhanced capabilities and future theater ballistic missile defense (TBMD) testing Environmental Impact Statement (EIS). Acceptance of the enhanced capabilities testing program EIS will certainly have a positive impact on the 154 ACS.

2. Ninety-five percent of the unit members are Kauai residents, many of them born and raised on Kauai. The 154 ACS consists of 30 full time military civil service technicians and 96 traditional guardsmen who train one weekend per month plus an additional 15 days of military training per year.

3. The 154 ACS is part of the US Air Force's ground theater air control system and supports the air operations performed by the Combat Air Forces. The 154 ACS is a mobile radar and communications unit able to perform air operations such as close air support, air interdiction, counter air, air reconnaissance, air refueling, area surveillance, etc. The 154 ACS is capable of providing the Joint Forces Air Component Commander (JFACC) with the means to plan, direct, and control air operations, and to coordinate these air operations with ground, naval, and coalition forces. Although world wide deployable, the unit will be employed by Pacific Air Forces (PACAF) within their area of responsibility during times of need.

4. A primary enemy threat to ground forces within PACAF's area of responsibility are theater ballistic missiles such as the SCUD and NODONG-1. Members of the US armed forces, including the 154 ACS, would probably be exposed to these threats if deployed to their wartime tasking. A successful TBMD testing program and future enhancements will minimize this threat and prevent many casualties.

5. Enhancing the capabilities of PMRF would also increase its longevity. As tenants, this is crucial for our training and readiness. PMRF affords us training opportunities by allowing deployment and operational exercises to be conducted on the base. Joint exercises with other services, especially US Navy assets, are mutually beneficial for interoperability training.

6. PMRF's enhanced capability EIS and a successful TBMD testing program is crucial to the members of the 154 ACS. We are wholeheartedly in favor of increasing research, testing and training capabilities at PMRF and submit this testimony to that effect.

Norman S. Nitta

NORMAN S. NITTA, Lt Col, HIANG
Commander

cc: HIANG/CC
154 WG/CC
154 OG/CC

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

9-90

IN REPLY REFER TO:
5090
Ser 00/ 1105
23 OCT 1998

Lt. Col. Norman S. Nitta
Headquarters 154th Wing
Hawaii Air National Guard
PO Box 598
Kekaha, HI 96852

Dear Lt. Col. Nitta:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support on behalf of the Hawaii Air National Guard 154th Air Control Squadron for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. As one of the representatives of those who have put their lives on the line for the protection and defense of our country, we recognize your valuable perspective concerning the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing our positive relationship with the ANG and other business and civic organizations on Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0279

BENJAMIN J. CAYETANO
GOVERNOR

MAJOR GENERAL EDWARD V. RICHARDSON
DIRECTOR OF CIVIL DEFENSE

ROY C. PRICE, SR.
VICE DIRECTOR OF CIVIL DEFENSE

STATE OF HAWAII
DEPARTMENT OF DEFENSE
OFFICE OF THE DIRECTOR OF CIVIL DEFENSE
3949 DIAMOND HEAD ROAD
HONOLULU, HAWAII 96816-4495

PHONE (808) 733-4300
FAX (808) 733-4287

May 19, 1998

TO: Ms. Vida Mossman
Pacific Missile Range Facility

FROM: Roy C. Price, Sr.
Vice Director of Civil Defense

SUBJECT: ENVIRONMENTAL IMPACT STATEMENT PREPARATION NOTICE FOR THE STATE OF HAWAII ACTIONS RELATED TO ENHANCING THE CAPABILITIES OF THE PACIFIC MISSILE RANGE FACILITY.

We appreciate this opportunity to comment on the U.S. Navy Pacific Missile Range Facility Environmental Impact Statement within and outside U.S. territorial waters; Tern Island; Johnson Atoll; Niihau; Makaha Ridge and Kokee; Kure Atoll; and Barking Sands, Kauai, Hawaii.

State Civil Defense (SCD) does not have any negative comments specifically directed at the draft environmental impact statement. We do not wish to make any comments on this proposal.

Our SCD planners and technicians are available to discuss this further if there is a requirement. Please have your staff call Mr. Norman Ogasawara of my staff at 733-4300.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 08 65
23 OCT 1998

Mr. Roy C. Price, Sr.
Department of Defense
State of Hawaii
3949 Diamond Head Road
Honolulu, HI 96816-4495

Dear Mr. Price:

Thank you for your response to our request for comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0281

9-91

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 5TH FLOOR
HONOLULU, HAWAII 96813

MICHAEL D. WILSON, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES
GILBERT COLOMA-AGARAN

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION DIVISION
LAND DIVISION
STATE PARKS
WATER AND LAND DEVELOPMENT

REF:HP-AMK

MAY 2 1 1998

P-W-0289

LOG NO: 21457
DOC NO: 9805NM01

Ms. Vida Mossman
Department of the Navy
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Hawaii 96752-0128

Dear Ms. Mossman:

SUBJECT: **Historic Preservation Review -- Draft EIS for Pacific Missile Range Facility (PMRF) Enhancing Capabilities Barking Sands, Waimea, Kauai**

Thank you for the opportunity to review this project.

The Draft EIS does not include any historic preservation studies done for this project. It references a number of reports done for this project (i.e. U.S. Department of Defense 1995, U.S. Department of Navy 1996, Gonzalez 1997, Meyer 1998 and ICRMP, 1998?), none of which has been received or reviewed by our office. The ICRMP, which is yet to be completed, seems planned to include mitigation plans that PMRF will follow. Clearly, we need to see a completed ICRMP to review project impacts. We need to receive a copy of all the historic preservation-related reports in order to review the impacts of this undertaking under the National Historic Preservation Act, Section 106. These reports should include archaeological survey and oral history work on the possible presence of any traditional cultural properties.

Also, as a reminder, under National Park Service standards, a qualified archaeologist (minimal M.A. degree) must be an author or co-author on the archaeological survey report for this project.

Also, please note that if sites are likely to be present that are of cultural significance, consultation with native Hawaiian groups and individuals must be done by PMRF to obtain their input on proposed impacts and mitigation ideas. Documentation of such consultation needs to be seen by our office before we can finalize our review. We do note that some project areas include burial areas, so consultation does appear to be need. (Also, the Kamokala Caves appear to be more sensitive than we originally thought. We recommend that an archaeological inventory survey occur in this area.)

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As a last comment, your virtual island in the Draft EIS appears identical to Kaho'olawe in shape. Because of the sensitivity of the military use of that island, you might consider changing the island's shape to avoid any unnecessary bad feelings.

If you have any questions, please call Nancy McMahon 742-7033.

Aloha,

MICHAEL D. WILSON, Chairperson and
State Historic Preservation Officer

NM:amk

c. KIBC

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1 1 1 3
2 3 OCT 1998

Michael D. Wilson
Chairperson and State Historic Preservation Officer
State of Hawaii
Department of Land and Natural Resources
State Historic Preservation Division
33 South King Street, 6th Floor
Honolulu, HI 96613

Dear Mr. Wilson:

Thank you for your response to our request for comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

The Cultural Resources Management Plan (CRMP) has been completed and has been forwarded along with the other documents requested. An interim Draft MOA has been provided to your office for activities addressed in the EIS. We will continue this consultation with the goal of entering into a long-term Programmatic Memorandum of Agreement (PMOA) to cover base activities and potential burial sites.

Also, in accordance with the PMOA, a qualified on-site archaeologist would monitor all ground-disturbing activities with the proposed construction of two magazines fronting on Kamokala Magazines. If archaeological resources were exposed, work would stop. The on-site archaeologist would evaluate the situation and appropriate measures would be taken to mitigate impacts to those resources.

As an interim measure, we are developing a MOA to address proposed activities. This interim MOA will be between the Navy, the State Historic Preservation Officer, and Na Ohana Papa O Mana. It will provide substantive protection which will be contained in the more comprehensive PMOA.

While the shape of the computer-generated island used for training exercises at PMRF resembles the shape of Kaho'olawe, no insult was intended. The outline of the Naval Gunfire Scoring System (NGSS) was created to be compatible with existing software and procedures. This allowed the Navy to minimize costs.

We appreciate your interest and look forward to continuing to work with your office on this important effort.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0289

P-W-0301

BENJAMIN J. CAYETANO
GOVERNOR

GARY GILL
DIRECTOR

STATE OF HAWAII
OFFICE OF ENVIRONMENTAL QUALITY CONTROL

235 SOUTH BERETANIA STREET
SUITE 702
HONOLULU, HAWAII 96813
TELEPHONE (808) 586-4185
FACSIMILE (808) 586-4186

May 26, 1998

Commanding Officer
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Hawaii 96752-0128

Subject: Draft EIS PMRF Enhanced Capability

Thank you for the opportunity to review the subject document. We have the following comments and questions.

1. Please indicate in the Final EIS that the approving agency/accepting authority is the State Department of Land and Natural Resources.

2. In the executive summary, please concisely discuss the proposed mitigation measures and include a listing of permits and approvals.

3. Please sign the Final EIS and indicate that the document was prepared under the signatory's direction.

4. Releases of rocket propellant combustion products (including lead) can cause adverse human health effects. Will the project use enclosed test facilities equipped with vapor recovery systems and oxidizer vapor scrubber systems? Will the number of test launches be minimized to the greatest extent possible? Are test simulations planned to reduce the number of launches? Will the timing of the test launches be restricted to avoid weather conditions that could bring (by wind or rain) pollutants toward inhabited areas of the island?

5. Hazardous propellants may be transported from Nawiliwili Harbor or Port Allen to PMRF over the roadway. Can the roadways to PMRF adequately handle vehicles transporting the propellants? Are there provisions for reducing potential spills and uncontrolled releases of hazardous materials? Has a spill prevention and control plan been written? If so, please include it in the Final EIS.

6. Communications and radar systems produce electromagnetic

9-94

radiation (EMR) that could result in adverse impacts on humans and wildlife. Will power densities of EMR be controlled to acceptable safety levels? Have standoff distances from EMR power sources been specified? If so, please include the specifications in the Final EIS.

7. Releases of hazardous materials through launch and collision debris can affect the environment. Are there any opportunities to reduce the amount of hazardous and toxic materials used as part of the project? Is there a plan for expeditious recovery of debris containing hazardous materials? If so, please include the plan in the Final EIS.

8. Noise associated with testing activities can affect both humans and wildlife. Sonic booms generated from the flight of test missiles can interrupt the breeding habits of some wildlife species. Does the project specify adequate sound attenuation measures, such as noise barriers? If so, please describe the sound attenuation measures in the Final EIS.

9. This project is located near the ocean. Surface water quality near launching facilities and below rocket trajectories could be affected by the deposition of contaminants from exhaust clouds, fallen rocket debris or spills of propellant. Please specify mitigation measures to minimize the contamination of surface waters. Please describe any emergency response procedures set up to handle spills or other emergencies.

10. The construction of new facilities would result in habitat loss for nearby wildlife. Please describe the mitigation measures to minimize impacts to biological resources.

11. Dredging activities in Johnson Atoll will cause adverse water quality impacts. Please provide details of the Best Management Practice (BMP) procedures that will be implemented to minimize water quality impacts.

12. The project proposes to build a seawall in Tern Island. Please review the attached draft shoreline policy and answer the ten questions listed in the document.

If you have any questions please call Jeyan Thirugnanam at 5864185.

Sincerely,

Gary Gill
Director

c: Michael Wilson, DLNR

ATTACHMENT

Draft Shoreline Hardening Policy

I. Definition of Problem.

Coastal property owners bear tremendous risks. Their property is vulnerable to tsunamis, storm surges, floods and hurricanes. In addition, owners along the shoreline bear the risk that their property may erode. Under common law, a riparian land owner "loses title to lands that are submerged through the process of erosion." R.R. Powell 5A Powell on Real Property § 66.01 [2] (1994). The Hawaii Supreme Court has held that "registered ocean front property is subject to the same burdens and incidents as unregistered land, including erosion....[T]he precise location of the high water mark on the ground is subject to change and may always be altered by erosion." County of Hawaii v. Sotomura. 55 Haw. 176, 180 (1973). Because the land seaward of the upper reaches of the wash of the waves -- including the beach -- is a public trust resource (Application of Sanborn. 57 Haw. 585, 562), the state, as trustee, can restrain those activities that damage the resource. Orion Corp. v. State 747 P.2d 1062 (Wash. 1987); U.S. v. State Water Resources Control Board. 227 Cal. Rptr 161 (Cal. App. 1 Dist 1986); State Dept. of Environmental Protection v. Jersey Central P & C Co. 308 A.2d 671 (N.J. Super L. 1973). A private property owner does not have the right to impair public trust resources.

Tide gauges maintained by the National Oceanic and Atmospheric Administration demonstrate that our islands are experiencing a relative rise in sea level due to both global sea-level rise and local geologic factors (Fletcher, 1992). In many places, the rise in water causes natural beach retreat that leads to coastal land erosion. Erosion is a natural process whereby the coastal environment responds to sea-level rise by shifting landward. Shoreline movement may occur slowly at an average annual rate, or it may occur episodically associated with storms at unpredictable times and rates. Erosion is only a problem needing mitigation where near-shore development interferes with the natural process.

Armoring the shoreline with seawalls or revetments often stops the erosion of coastal land mauka of the structure. However, where beaches are undergoing long-term retreat, shoreline hardening eventually leads to beach narrowing, followed by beach loss (Hall, 1964; Birkemeier, 1981; Fischer, 1986; Hanson and Kraus, 1986; Komar and McDougal, 1988; Kraus, 1988; Tait and Griggs, 1990 and others). A hardened structure tends to shift the focus of erosion from the land to the beach fronting the wall. Seawalls and revetments are not a cure for the cause of erosion, but rather a defensive mechanism to mitigate land loss without regard for resulting impacts to adjacent envronments such as the beach or the laterally adjacent shoreline (Raynor, 1953; U.S. Army Corps of Engineers, 1964; Walton and Sensabaugh, 1983; Tait and Griggs, 1990). Shoreline hardening not only leads to beach loss where beaches are undergoing long-term retreat, but it may also exacerbate the erosion problem (McDougal, Sturtevant and Komar, 1987). Shoreline hardening devices may trap dune and upper beach

sand that formerly aided the process of beach recovery following storms and during erosive seasons (Terich, 1975; Wood, 1988; Kraus, 1988; Komar and McDougal, 1988).

Studies of historical vegetation line movement in Hawaii indicate that many coasts are experiencing long-term retreat (Hwang, 1981; Sea Engineering, 1988; Makai Ocean Engineering and Sea Engineering, 1992) and that many of these coasts have been hardened as a result of the need to stop land loss. The trend of hardening has led to beach narrowing and beach loss on all islands (Hwang and Fletcher, 1992), especially on the islands of Oahu and Maui, where the combination of sea-level rise and extensive coastal development has resulted in significant beach loss (Hwang and Fletcher, 1992; Mullane and Fletcher, 1995).

II. **General Policy.**

Hardening of the shoreline should be avoided. In addition, development near the shoreline should be avoided in order to:

- prevent the inevitable need to harden the shoreline and resulting loss of public beaches, lateral shoreline access, open space and view corridors;
- mitigate threats to inhabited structures from coastal hazards; and
- avoid the need for future public expenditures in responding to damage caused by hurricanes and other coastal hazards;

III. **Response to applications for seawalls, groins and revetments.**

All decision makers should discourage the construction of seawalls, revetments or other shoreline hardening devices that have the potential to lead to beach loss.

As an alternative to a hardened structure, applicants should consider the applicability of coastal dune enhancement, beach replenishment, sand recycling and other "soft" approaches to mitigating coastal erosion. Applicants should also evaluate the potential for moving dwellings and other structures away from the shoreline as a means of mitigating the effects of erosion. Finally, any application should include the information requested in the attached letter from the OEQC.

If after a thorough analysis of an application, the decision maker finds by clear and convincing evidence that the impact on public trust resources would be negligible, alternatives to hardening would be impractical, substantial hardship to the applicant is real, and these compelling reasons dictate that a hardened structure should be approved, any approval that is granted should be conditioned on the applicant monitoring shoreline response to the structure for thirty years. Monitoring should be conducted using standard coastal surveying techniques to document short-term and long-term changes in the beach profile both on the subaerial beach and offshore. In order to ensure that planning authorities retain the ability to protect our beaches and because future events may require the removal of seawalls, revetments or groins, all variances and permits should either have an expiration date (subject to renewal), or be revocable upon a finding of environmental impact. In other words, the variance or permit should not confer a vested right to keep the structure in perpetuity.

In general, a variance should be viewed as an extraordinary exception which should be granted sparingly. The reasons to justify approval must be substantial, serious and compelling. R.R. Powell 6 Powell on Real Property § 79c.16[1] (1995).

IV. **Response to existing illegal seawalls, revetments and groins.**

In assessing whether to remove existing seawalls, revetments and other shoreline hardening devices that have been constructed without proper review and approval, decision makers should consider:

(1) the impact the structure is having on shoreline processes and access;
(2) the impact of removal of the structure on the beach;
(3) the immediate impact of removal of the structure on nearby dwellings; and
(4) alternatives to the structure which can mitigate erosion impacts.

Removal should be encouraged where removal will lead to restoration or improvement of beach resources.

V. **Long term: response to development near the shoreline.**

So long as construction is allowed too close to the shoreline, landowners will attempt to protect their structures with seawalls and revetments. A long-term solution will require that land use decision makers use whatever discretionary authority they may have to push new development and redevelopment mauka. When state land use classifications are changed, CDUAs and SMA applications approved, zoning amended or subdivisions approved, conditions should be attached that restrict an applicant's (re)development proposals to the area as far landward on the lot as feasible.

Counties should also consider developing guidelines and procedures for creating coastal overlay districts with enhanced opportunities for funding and implementing a combined beach-land preservation management system with long-term planning as the central tenet.

If sea-level continues to rise, strategic retreat from the coastline is ultimately the least expensive response to erosion.

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Any Environmental Assessment prepared in conjunction with an application to construct a seawall, revetment or similar structure should be accompanied by appropriate justification and detailed studies including, but are limited to, the following:

1. A Historical Shoreline Analysis of coastal erosion and accretion rates. This should include a description of all movements of the neighboring shoreline over at least the past 30 years. This analysis should be based, at least in part, on aerial photographs available through government agencies and private vendors. The analysis should provide a detailed history of erosion and accretion patterns using all available evidence.

2. A description of the nature of the affected shoreline, whether sandy, rocky, mud flats or any other configuration. The history and characteristics of adjoining sand dunes and reefs should be included.

3. Site maps that clearly show the current certified shoreline, previous certified shorelines, the private property line and the location of the proposed structure. Any nearby public access right-of-way should also be depicted.

4. Beach profiles that extend off shore at appropriate intervals along the beach indicating the width and slope of both the submerged and dry portions of the beach.

5. An analysis of any existing nearby walls or revetments and their cumulative impacts on the shoreline.

6. A description of structures and improvements (such as homes or swimming pools) on the subject property, their distance from the property line and shoreline, and how they may be affected by the construction of the proposed hardening project.

7. Awave and storm frequency analysis for the area in question. This should include any relevant coastal processes such as longshore currents and seasonal wave patterns.

8. An analysis that predicts the location of future shorelines with and without the proposed wall at least 30 years into the future or over the expected life of the hardening project.

9. Photos of the site that illustrate past and present conditions and locate the proposed structure.

10. All alternatives to shoreline hardening should be thoroughly researched and analyzed. These alternatives should include beach replenishment, dune-scaping, retreat from the shoreline by moving existing structures inland, and a no action alternative.

The inclusion of this information will help make an Environmental Assessment complete and meet the requirements of Chapter 343, HRS. Only after thorough study and analysis should any permit for shoreline hardening be considered.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1122
23 OCT 1998

9-98

Mr. Gary Gill
Office of Environmental Quality Control
State of Hawaii
235 South Beretania Street
Suite 702
Honolulu, HI 96813

Dear Mr. Gill:

Thank you for your response to our request for comments on the Pacific Missile Range Facility Enhanced Capability Draft Environmental Impact Statement (EIS).

1. We have revised the Executive Summary and Section 1.4 of the EIS to indicate the approving state agency is the Department of Land and Natural Resources.

2. A table of potential mitigations has been added to the Executive Summary. Also, permits which are anticipated have been specified.

3. The EIS was forwarded via a transmittal letter by the Commanding Officer at PMRF indicating the document was prepared under his direction and approved by him.

4. With regard to air quality, exhaust plumes would dissipate quickly with no exceedance of ambient air quality standards beyond the bounds of the Ground Hazard Area, which would be cleared of all people. Therefore, enclosed test facilities are not necessary nor are they practical. The Navy conducts only necessary tests and uses simulations wherever possible. Prevailing winds are monitored prior to a launch to ensure that the winds will not cause debris to fall outside the identified impact areas. Exhaust plumes dissipate so quickly that winds are not a consideration in terms of air quality.

5. We have consulted with the Hawaii Department of Transportation and they have not indicated that transportation of propellant would pose any logistical or physical problems that differ from routine transportation of other chemicals. Nonetheless, the Navy prefers transportation of liquid propellants via DOT waiver by air. PMRF does have a current Spill Prevention Control and Containment (SPCC) plan as well as procedures for transportation of the various chemicals used and transported at PMRF. The SPCC is a part of the Administrative Record. Section 2.3.1.3.1 describes the transportation process being considered and Section 4.1.1.7.2.2 contains analyses of the alternative transportation routes as well as potential mitigation measures.

6. The Proposed Action is considered in conjunction with on-going fleet training exercises as well as in combination with the longer-term continued training and testing. While missile launches and other training activities have been adequately analyzed, we agree that more analysis is needed with respect to the potential for effects of EMR. This further analysis is contained in Sections 3.1.1.7.2.3, 4.1.1.7.1.1 and 4.1.1.7.2.5.

7. We use hazardous and toxic materials only when absolutely necessary. Pollution prevention programs at PMRF have resulted in a significant reduction in the amount of hazardous waste generated when compared to 1990 levels. Solid propellants used in conjunction with the proposed action would be similar to past systems launched from PMRF and would follow the same hazardous materials and hazardous waste handling procedures developed under existing plans. For liquid propellants, existing spill plans, emergency response plans, and hazardous materials and hazardous waste plans would be modified to include these materials before they would be used at PMRF. Routine recovery of missile debris at sea is not feasible due to the ocean depth, and is not planned.

8. The proposed action does not include any sound attenuation measures. Effects of noise are addressed in Section 4.4.2.2.1. Any sonic booms generated would be at sea where noise barriers would not be possible.

9. Pollution Prevention, Control and Countermeasures Plans are followed during each exercise, including launches, reducing the potential for impacts from hazardous materials. For the proposed action, water resources could be affected in similar ways as described for the no-action alternative. Sampling programs have indicated that no measurable changes in water, hydrogen chloride levels could be attributed to past launches of solid rocket motors. Sampling programs have also indicated that lead concentrations from missile launch emissions have not increased the lead levels above DOH levels. The increase in missile launch activities would produce some additional exhaust emissions; however, the level of impacts to water resources would not be expected to increase above those identified for the no action alternative.

10. PMRF has management plans for oil and hazardous materials outlined in the PMRF SPCC plan and the Installation Spill Contingency Plan, both of which also regulate tenant organizations and PMRF associated sites. Specifically, sites included are KTF, Makaha Ridge, Kokee, Kamokala Magazines, and Port Allen.

When other alternative launch alternatives are selected, the SPCC plan will be revised to include them.

11. PMRF has developed programs to comply with the requirements of the SARA Title III and Emergency Planning and Community Right-to-Know Act (EPCRA). This effort has included submission to the State and local emergency planning committees of annual Tier II forms, which are an updated inventory of chemicals or extremely hazardous substances in excess of threshold limits. These chemicals at PMRF include jet fuel, diesel fuel, propane, gasoline, aqueous fire fighting foam, chlorine, used oil, paint/oils, and paint.

12. Mitigation measures that could reduce the potential for impacts to affect biological resources include restricting program personnel from beach areas, minimizing the use of heavy equipment, and, in some locations, using a mobile launcher rather than building a concrete launch pad. For Niihau, Niihau elders assisted the Navy in identifying areas where Navy activities could occur. Cultural and natural resource surveys have been conducted with Niihau residents in these areas. Within these areas, as specific siting activities proceed, more detailed surveys will be conducted. Program personnel that visit or handle cargo destined for remote sites will be trained in techniques to reduce the likelihood of foreign introduced species.

13. The EIS indicates in Section 4.3.1.5.2 that prior to dredging biological and geological surveys would be conducted in consultation with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). Specific dredge locations and depths would be chosen to minimize impacts. Those selected for these dredging operations could be chosen in consultation with USFWS and NMFS to consider seasonal weather, migratory and breeding patterns of wildlife to minimize effects on these wildlife.

14. Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

    The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0301

P-W-0305

9-100

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STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

May 19, 1998

Ms. Vida Mossman
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

DOC NO: EIS-52

Subject: Draft Environmental Impact Statement for the Pacific Missile Range Facility Enhanced Capability

Dear Ms. Mossman:

Thank you very much for providing us the opportunity to review the above-referenced Draft Environmental Impact Statement (DEIS). The United States Department of the Navy is exploring the possibilities of enhancing the capabilities of their Pacific Missile Range Facility (PMRF). This enhancement involves the improvement and expansion of existing PMRF facilities and the establishment of new "support" sites including areas on the island of Ni'ihau.

This response outlines the response of the Office of Hawaiian Affairs (OHA) to the proposed PMRF enhancement/expansion. This response, which is intended to examine potential adverse or beneficial impacts to the environment, wild habitats, and human settlements is based on a careful review of the DEIS prepared by the U.S. Department of the Navy.

OHA has serious concerns with the proposed PMRF project and is particularly concerned with potential adverse impacts upon proposed enhancement/expansion areas on the islands of Kauai and Ni'ihau. OHA's main concerns are outlined below.

- Hazardous Materials and Wastes

  The potential risk for the release of hazardous materials and wastes into the environment increases significantly with implementation of the proposed action. The greatest risks would again be on Kauai (PMRF/Main Base), and Ni'ihau.

It is expected that the proposed Action activities would result in an overall 10 percent increase in the amounts of hazardous materials used and hazardous wastes generated at the PMRF/Main Base. And most of this increase in hazardous materials would result from the approximately 30 percent increase in hypergolic fuels handled. (pg. 4-28).

On Ni'ihau potential adverse impacts resulting from the release of hazardous materials/wastes into the environment would be even greater. At present the primary hazardous materials/wastes generated on Ni'ihau are associated with the fueling and and maintenance of diesel generators to operate radar and electronic warfare facilities.

Considering the fact that the proposed actions on Ni'ihau would involve significant construction activities (incl. target launch facilities, interceptor launch areas, telemetry/ instrumentation, and an airstrip), the proposed action would involve major increases in the use and generation of hazardous materials/wastes. The DEIS states that these hazardous materials/wastes would consist primarily of solid and liquid propellant missiles, diesel fuels, solvents and paints (pg. 4-136).

The DEIS does not provide an overall estimate for the increase in volume of hazardous materials/wastes on Ni'ihau. The DEIS acknowledge that the potential for adverse cumulative impacts exists if a spill or misuse of materials occurs. Yet DEIS concludes that there would be no adverse hazardous materials/waste impacts as a result of the proposed action (pg. 4-137).

The only mitigation measure provided in the DEIS is the application of PMRF waste management procedures to Ni'ihau activities (pg. 4-137). However, no information is given about these procedures. Are these primarily spill-response procedures? If so, are they applicable and adequate for proposed sites on Ni'ihau?

It should be kept in mind that Ni'ihau's isolation from the rest of the Hawaiian Islands has resulted in fragile terrestrial and aquatic ecosystems which are relatively pristine. The transport, use, storage, and disposal of large quantities of hazardous materials/wastes greatly increases the risk of a release which could be devastating to these ecosystems.

Furthermore, the potential for contamination of Ni'ihau's limited water resources poses a major risk. Hazardous materials/waste releases into the environment may affect surface water or ground water systems by direct discharge of wastes containing toxic compounds or from surface runoff which has come in contact with toxic materials left as residue over the ground surface.

- Air Quality

  OHA is concerned about the cumulative adverse impacts to air quality resulting from proposed missile launching and enhancement operations. The DEIS states that emission and particulate levels could exceed National Ambient Air Quality Standards on both Kauai and Ni'ihau as a result of these operations (pp. 4-7, 4-126). However, no mitigative measures for air quality are proposed.

  The DEIS addresses each launch as a "discreet event", claiming that "launch procedures would allow sufficient time between launches so that no exhaust from one launch would impact ambient air quality during the next" (pg. 4-7). This may indeed be accurate, but the DEIS should address cumulative impacts as a result of the increased frequency of missile launches. The intensity and duration of each "temporary air quality impact" within and "beyond the bounds of the ground hazard areas" should be analyzed and addressed as a result of the increased launch frequency.

  Adverse impacts to the relatively pristine environment of Ni'ihau by these launch activities is again a grave concern. A comprehensive study should be completed to fully address potential impacts including effects on human health (morbidity, mortality), wildlife (threatened and endangered species, faunal nesting habits, chronic vegetation injury, reduced productivity of vegetation), and potential synergistic impacts of air emissions.

- Noise Impacts

  The quality of sound (noise) is an important indicator of the quality of the environment. Ramifications of various sound levels and types may be reflected in the health and well being of human beings and wildlife or in the aesthetic appreciation of an area.

  Proposed missile launching activities (and airstrip activities on Ni'ihau) will undoubtedly have negative impacts on the surrounding environments of associated islands. Impacts to human populations will be the greatest on the islands of Ni'ihau and Kauai.

  The residents of Ni'ihau will experience the greatest adverse impacts from noise due to the common low noise conditions on the island. Ni'ihau, with its low population density and lack of industry is characterized by a noise environment consisting primarily of natural sounds. Missile launching operations in such an environment would be severely disruptive to both human and wildlife populations.

Based upon the information provided in the DEIS, noise levels for missile launches on Ni'ihau (and Kauai) would extend far beyond the launch sites' respective Ground Hazard Areas. Noise levels from missile launches are estimated at approx. 95 dBA at 10,00 feet (equal to a gas lawn mower at 3 feet), and approx. 87dBA at 24,000 feet (equal to a diesel truck at 50 ft) (pp. 3-71, 3-98, 4-147). Additionally, there would be associated airstrip operations involving an excess of 60 aircraft flights per year which will have a noise impact of as high as 105 dBA (Jet flyover) (pp. 3-71, 4-146).

At the PMRF Main Base the frequency of missile launches will increase significantly, and there will be a resultant increase in adverse noise impacts to the local population. OHA is puzzled by the end conclusions in the DEIS regarding noise impacts at PMRF Main Base.

The DEIS acknowledges that as a result of existing missile operations (the no-action alternative) at PMRF "residents in Kekaha may be annoyed from southern launches," and the community experiences "aircraft noise levels of 65dBA and lower over sugar cane fields" (pg. 2-98). After making this statement, the preparers also acknowledge that there will be an "increased frequency of missile launches" under the proposed action (pg. 2-98). In the end, their final determination is one of no adverse impact.

OHA also finds the highly adverse noise impacts upon the environment of Ni'ihau to be excessive, and the determination of "no adverse impact" by the navy to be unacceptable. OHA finds the navy's assertion that "overall noise levels within the village area and on the entire island are not expected to substantially increase over baseline conditions" to be totally ludicrous. Any action which has the "potential to generate sonic booms that may be heard on Ni'ihau" can hardly be dismissed as having no adverse impact (pg. 4-147).

- Biological Resources

  The potential threat to native flora and fauna (and associated sensitive wildlife habitats) from the proposed PMRF Enhancement actions are numerous and significant. These threats exist on all sites proposed in the DEIS (incl. Kauai, Ni'ihau, Kaula, Tern Island, and Johnston Atoll). The DEIS lists over thirty threatened/endangered terrestrial and marine plant and animal species which inhabit these sensitive areas .

  Threatened and endangered species populations would suffer irreparably from proposed Enhancement operations primarily from effects previously addressed in the noise and air quality sections of this response. OHA's main concern is the further decline in the populations of listed species as a result of critical habitat loss, bio-accumulation of toxins, and disruption of nesting and reproductive patterns.

The State of Hawaii has the greatest number of endemic species in the United States. Unfortunately, the a Hawaiian Islands also claim the greatest number of federally listed threatened and endangered species in the United States. Various federal and state programs have been established and maintained to protect and preserve these species and their habitats. The proposed PMRF Expansion activities would in no way contribute to these preservation efforts and would only serve to undermine them.

- Cultural and Traditional Resources

A key concern to the PMRF expansion are potential adverse impacts upon cultural and traditional resources. OHA feels that the proposed action alternatives described in the DEIS on both Kauai and Ni'ihau have not been adequately addressed .

The DEIS provides a very general description of existing (known) cultural resources in Section 3.0 (Affected Environment). In Section 3.0, the cultural resources for the Kauai facilities (incl. PMRF Main Base, Makaha Ridge, and the Restrictive Easement), Support Sites (incl. Niihau, and Kaula), and Candidate Sites (Johnston Atoll, Tern Island) are divided into

three categories and discussed. These categories are archaeological resources, historic resources, and traditional resources.

This categorization of cultural resources would appear appropriate. However, the DEIS becomes inconsistent by first presenting (rather limited) descriptions of existing (known) cultural resources, and subsequently providing an incomplete analysis of potential impacts to these resources (in Section 4.0 - Environmental Consequences and Mitigative Measures). In the assessment of cultural resources the DEIS limits its conclusions to impacts upon physical artifacts or properties (pp. 4-22, 4-79, 4-88, 4-101, etc.) within the proposed project areas.

Examples of such inconsistency is illustrated in the assessment of cultural resources at Makaha Ridge and the Kamokala Magazine areas. The DEIS initially describes the "affected" cultural resources at Makaha Ridge and Kamokala in terms of archaeological, historic, and traditional resources (sections 3.1.3.4 and 3.1.5.3 respectively). The descriptions included "traditional and historical accounts" such as "ceremonial functions, and forest resource harvesting" (pp. 3-106, 3-107), and sacred spiritual places such as the "leina-a-ka-uahane" cliffs (pg. 3-124). In section 4.0 impacts to these cultural resources are no longer addressed. Impacts to cultural resources at Makaha Ridge are limited to the "built environment and structures" (Sect. 4.1.3.4., pg. 4-88, 4-89).

The DEIS should address potential impacts to all culturally significant areas including: meeting places, sacred places, ancestral lands, burial grounds, sanctuaries, etc. The DEIS

should include sections on Native Hawaiian rights to these cultural resources in relation to the proposed PMRF expansion. This information should be an in-depth cultural assessment, not simply a general overview which contains brief historical and ethnographic information.

This cultural assessment should incorporate the methodologies and contents outlined in the State of Hawaii, Environmental Council's "*Guidelines for Assessing Cultural Impacts*", and should include (but not be limited to):

- Methods adopted to identify, locate, and select persons interviewed
- Circumstances under which the interviews were conducted
- Constraints or limitations which may have affected quality of information obtained
- Bibliographical information concerning individuals consulted, their expertise, and historical/genealogical relationship to the area.

It is essential that the cultural assessment does not simply identify various cultural and archeological features, but that it identify *cultural practices* and assess the impact of the proposed action (PMRF expansion), alternatives to the proposed action, and mitigation measures on these cultural practices and features.

- Land Use and Public Access

Land use and public access is of major concern to OHA because it directly affects Native Hawaiian Rights. These are the rights of the island's indigenous people to the land base, its associated resources, and access rights for customary and traditional practices.

The hazardous nature of missile launching activities in general preclude access to certain areas by the establishment of "restrictive easements" or "ground hazard areas". These areas are designed to protect the local population from injury and property damage in the event of launch accident or flight failure.

The proposed increase in missile launching activities at existing missile launch sites, and the expansion of launching operations into previously undisturbed public lands would restrict access by Native Hawaiians and the general public even further.

The DEIS describes how missile launching operations would require temporary beach closures and restrict shoreline access on both Kauai and Ni'ihau (sections 4.1.1.8.2.1 and 4.2.1.8.2 respectively). The preparers of the DEIS fail to recognize the importance of shoreline access and subsistence fishing in the lives of Native Hawaiian peoples. This is evidenced by the fact that "native Hawaiian subsistence fishing activities are identified as "recreational" land-use activities for both Kauai and Ni'ihau (pp. 3-96, 4-145 respectively).

The DEIS section on Environmental Justice discusses the role of subsistence fishing but does so superficially with regard to fishing on Kauai and inadequately with regard to fishing on Ni'ihau (pp. 4-242 – 4-246).

A detailed study should be undertaken to determine the full extent of Native Hawaiian fishing activities within all proposed ground hazard areas. Economic, social, and *cultural* aspects related to shore-line restrictions should be investigated in-depth. Evaluating the impacts of public land closure strictly quantitatively (ei. 30 beach closures per year) is inadequate because

there are many intangible cultural aspects which must be taken into consideration as well.

Lack of access to shoreline areas would certainly bring economic hardship to local people, particularly Native Hawaiians, who depend on subsistence fishing and ocean gathering to supplement their incomes. In addition to losses of revenue it should be kept in mind that these traditional fishing and gathering activities are fundamental to *Hawaiian culture* and livelihood.

- Socioeconomics

In assessing socioeconomic impacts to the island of Ni'ihau, the DEIS relied heavily upon an independent socioeconomic study which was already underway. This study was conducted by

Philip Meyer and is titled, *Ni'ihau: Present Circumstances and Future Requirements in an Evolving Hawaiian Community.* The study evaluates "the role that material and cultural resources play in the lives of the people of Ni'ihau, to consider the past and present status of such resources, and to consider opportunities to sustain the Ni'ihauan community dependent on them in the future" (Meyer, 1998 , pg. 3).

The purpose of this response is not to evaluate or review the study conducted by Meyers. A comprehensive review of Meyer's work should be undertaken particularly in terms of its content, accuracy, methodology, data, and conclusions. However, such a review is beyond the scope and intent of this response. OHA's main concern with the Navy's reliance upon Meyer's work is its inapplicability to the proposed PMRF Enhancement actions.

The main reason for the in applicability of the study is that most of Meyer's research was conducted from 1986 through 1988 as a work independent of PMRF operations. He briefly returned to Ni'ihau in 1992 and again in 1997 to "do updating work" (Meyer, 1998, Foreword).

Meyer's research may have its merits as an independent work presenting a general overview of resources in near-shore waters, Hawaiian culture (in a historic perspective), a summary of

common present day activities on Ni'ihau, and intrusion by outsiders. However, the report briefly discusses present day military operations in a mere three pages (Meyer, 1998, pp. 91-93). The report does not address the proposed PMRF expansion activities presented in the DEIS, because it apparently was not intended to be a socioeconomic/sociocultural analysis of Ni'ihau in relation to proposed PMRF expansion.

OHA agrees with Meyer's assertion of the importance of Ni'ihauan "control" over their own lives. However, the Navy seems to have ignored this important conclusion in their analysis of adverse impacts to the Ni'ihau community.

Throughout the report the main recurring theme is "control" by Ni'ihauans over their own resources and decisions to maintain a traditional lifestyle, which allows for progressive evolution. The report summizes that "uncontrolled intrusion by outsiders" is unsettling to Ni'ihauans and that intrusion should be curtailed with more control given to Ni'ihauans. However, as part of the author's problematic panacea of a "near-shore buffer zone," predominantly military control is implied (Meyer, 1998, pp.125-127).

In summary, the independent work by Meyer was not intended to address the proposed PMRF expansion activities and is not applicable to these activities and their impact on the people of Ni'ihau. The Navy should conduct a comprehensive Cultural Assessment which specifically addresses PMRF expansion.

In summary, OHA stands by its past record in opposition to the proliferation of missile launching operations and further military expansion in the Hawaiian Islands. OHA is especially opposed to such actions when their implementation is achieved without adequate and thorough review of the impacts associated with the project and a plan designed to mitigate their effects.

There has been a lot of attention focused on the issue of economic development on Ni'ihau and the potential economic benefits to the island if the proposed missile range enhancement were implemented. OHA recognizes the economic hardships facing the people of Ni'ihau and that economic opportunities on the island are limited.

OHA understands that there is a pressing need to develop alternative strategies to sustain and improve the local economy on the Island of Ni'ihau. But OHA views the U.S. Navy's proposed PMRF Expansion operations as one alternative which would bring a burden of adverse effects to the environment, wild habitats, and human settlements that largely offset any potential benefits.

OHA would appreciate your cooperation by providing our office with a written response to the above concerns. If you have any questions or need additional information, please contact Colin Kippen, Land and Natural Resources Division Officer at 594-1934.

Sincerely yours,

Randall Ogata
Administrator

Colin Kippen, Division Officer,
Land and Natural Resources

cc: Office of Environmental Quality Control
Board of Trustees
All Island CAC's

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1125
23 OCT 1998

Mr. Randall Ogata
Office of Hawaiian Affairs
State of Hawaii
711 Kapiolani Boulevard
Suite 500
Honolulu, HI 96813

Dear Mr. Ogata:

Thank you for your response to our request for comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS). We appreciate OHA's concerns about the proposed action and have responded to each.

Hazardous Materials and Waste

Precise quantities of the hazardous materials that will be handled, and the hazardous wastes generated by the Proposed Action, are not possible to estimate at this time. The best estimate, as mentioned in Section 4.1.1.6.2, is an overall 10 percent increase. The analysis determined whether or not the procedures and facilities required to handle hazardous materials, and to dispose of hazardous waste, were in place to handle any potential quantities of hazardous materials or waste. For Niihau, hazardous materials would only be brought to the site when required for use and would not be permanently stored on site. Hazardous wastes would be shipped off site for proper disposal. Existing permit conditions and disposal facilities would be used.

PMRF's hazardous materials procedures include procedures for transportation, handling, and disposal. Hazardous materials and hazardous waste management activities at PMRF are governed by specific environmental regulations. PMRF has established management procedures to implement these regulations. Chapter 3 provides more details on the management of these substances.

The Federal Department of Transportation and guidelines from Chapter 49 of the Code of Federal Regulations (CFR) regulates transportation of hazardous materials.

Hazardous materials on PMRF are managed by the operations and maintenance contractor. Typical materials used on the installation and stored at this location include cleaning agents, solvents, and lubricating oils. The Hazardous Waste Management Plan

(1990), prepared by the operations and maintenance contractor, identifies requirements for safe storage and segregation of hazardous material, proper safety equipment, spill or accident reporting procedures, and personnel training.

Hazardous waste disposal at PMRF operates under Resource Conservation and Recovery Act (RCRA). PMRF accumulates hazardous wastes for less than 90 days and disposes of them through the Defense Reutilization and Marketing Office (DRMO) at Pearl Harbor. Other management programs are in place for the Installation Restoration Program (IRP), underground storage tanks (USTs), asbestos, pesticides, polychlorinated biphenyls (PCBs) management, radon, medical/biohazardous waste management, ordnance, lead-based paint management, radioactive materials, and electromagnetic radiation. These management programs are described in detail in chapter 3, in both the Hazardous Materials and Hazardous Waste and Health and Safety Sections.

As described in Section 4.2.1.6.2, hazardous materials use and hazardous waste generation would be minimized in accordance with PMRF Hazardous Waste Management Plans. Hazardous materials would only be brought onto Niihau when required for use and would not be permanently stored onsite. All hazardous waste will be removed from Niihau for proper disposal in accordance with Federal and State and would not be permanently stored or disposed onsite. The increased requirements for diesel fuel would be handled similar to current conditions on the island. All diesel fuel would be stored in above ground storage tanks with secondary containment.

Pre-packaged liquid propellant target missiles would arrive at Niihau by barge from PMRF. The pre-packaged liquid propellant missiles would only be brought to Niihau when required for use and would not be permanently stored on the island. No liquid propellant target fueling operations will occur on Niihau. The self-contained liquid propellant missiles would only be used on the north end of the island and would not be transported through the village. Fueled target missiles would be handled in accordance with approved procedures. Such handling is routinely accomplished and would not be expected to present a potential for fuel release. Certain pre-launch emergency conditions could require the defueling of a target missile at the launch site. The transfer of propellants in such cases would be accomplished in accordance with standardized transfer procedures. These procedures address the methods to be employed for propellant transfer and specify the container requirements for propellants downloaded from the target missile (storage containers would be on the island for de-fueling, if required). Spill containment kits and a qualified hazardous material spill response team would be staged on Niihau. Launches of liquid propellant systems would occur on concrete pads or a cleared area with appropriate spill containment berms to contain any accidental release of liquid propellants.

All hazardous debris resulting from an accident of either a solid or liquid propellant missile on the launcher or from early flight termination would be contained entirely within the ESQD or ground hazard area. Teams would be available for fire suppression and hazardous materials emergency. All hazardous materials generated during a missile mishap would be cleaned-up and remediated by PMRF and disposed of as hazardous waste in accordance with State and Federal regulations.

Because of these precautions and practices, we do not expect any adverse hazardous materials or hazardous waste impacts from implementation of the proposed action.

Air Quality

Page 4-7 of the Draft EIS states that there would be no impact from the proposed action that is different than under the no-action alternative for PMRF/Main Base. Any exceedances of National Ambient Air Quality Standards (NAAQS) at PMRF result from cumulative impacts of military and non-military activities. As stated in Section 4.2.1.1.2 and page 4-125 of the Draft EIS, NAAQS will not be exceeded at Niihau.

Proposed increased frequency of launches is not expected to result in cumulative impacts since each launch is a discrete event and is a small percentage growth from missile launches under the no-action alternative.

All evidence indicates that effects to human health and wildlife and synergistic impacts of air emissions do not exist and therefore do not warrant additional study.

Noise Impacts

As stated on page 4-147 of the Draft EIS , it is anticipated that no more than 8 missiles (4 targets and 4 interceptors) will be launched per year on Niihau. Noise effects from these launches would be of very short duration (less than one minute). We do not believe these short increased noise periods would have a significant adverse effect on the human or wildlife populations on Niihau. Also, as stated on page 4-147 sonic booms from launches would occur over the open ocean and therefore have no effect on Niihau. Potential sonic booms from target missiles launched from other locations, with impact points near Niihau would not have an effect on the island as long as those impact points are kept more than 4.7 miles from the shores of Niihau. Any missile flights would be designed to ensure that this standoff distance is maintained. Aircraft flights into Niihau to a proposed airstrip would not exceed 60 per year or roughly one per week. These flights would also be of short duration, and the flights would be directed away from the village or sites of wildlife habitation. We maintain that these activities would not adversely affect Niihau.

While increased missile launches from PMRF is not expected to exceed 10 per month (page 2-48 of the Draft EIS) this does not represent a monthly average, but rather a

peak usage. Many months would have no additional missile firings. When compared against the level of activity in Table 2.2.1-11, we believe the increased firings to not be significant. While some of these additional firings may be audible from Kekaha, it does not represent a significant increase from the no-action alternative.

Biological Resources

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Regarding threatened and endangered species such as the monk seal and green sea turtle, we are in consultation with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service under the Endangered Species Act as indicated in Volume 2, Appendix K, pages K1 and K7.

Cultural and Traditional Resources

The "Guidelines for Assessing Cultural Impacts" states that cultural impact information can be obtained in a variety of ways. These include "scoping, community meetings, ethnographic interviews and oral histories". PMRF has conducted scoping and public hearings on both Kauai and Oahu. Further, individual meetings were held on Niihau with the residents. As recommended in the "Guidelines", these procedures have been documented within the EIS along with the verbatim inputs we have received. We believe that the PMRF EIS meets the intent of the guidelines.

At Makaha Ridge, we plan no ground-disturbing activities outside previously disturbed areas. Therefore, there will be no impacts to cultural and traditional resources.

To date, Kauai archaeologists and elders have indicated to us that the Leina-a-ka-uhane is not in the area of the Kamokala Magazines, but it should be noted that no modifications to the World War II-era man-made caves or the ridge itself are being proposed.

Land Use and Public Access

There is no proposal to expand launching operations into previously undisturbed public lands. There would be no increase in closures of the GHA above the number already established in the existing restrictive easement (30 per year). On Niihau, areas would be closed to residents only 20 minutes per launch for up to 8 launches per year (4 hours total annually).

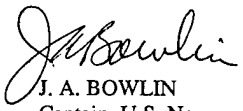
Because the closure of the GHAs on Kauai and Niihau would restrict access to fishing areas for such short periods and for limited numbers of times per year, we do not believe a detailed study of subsistence fishing is required to understand the potential impacts.

Socioeconomics

We acknowledge your opinion regarding the applicability of the Meyer report to this EIS. It is however, the most significant, and most recent body of work describing the lifestyles of the residents. We believe that it is appropriate to use this work as a reference in this EIS. Further, we received many comments from Niihau residents during scoping and public hearing meetings. These comments have been totally in support of the proposed action of the EIS, as well as past Navy/Niihau interaction.

We share your interest and concern about Native Hawaiian issues and believe that the EIS adequately addresses potential impacts in this area. We look forward to continuing to work with you and to being a good neighbor to the people of Kauai.

Sincerely,



J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0305

P-W-0310

University of Hawai'i at Mānoa

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May 26, 1998
RE:0687

Ms. Vida Mossman
U.S. Navy
Pacific Missile Range Facility
PO Box 128
Kekaha, Kauai, Hawaii 96752-0128

Dear Ms. Mossman;

Draft Environmental Impact Statement
Pacific Missile Range Facility
Waimea, Kauai

The United States Navy, working with the State of Hawaii, proposes to obtain a restrictive easement which would authorize them to exercise exclusive control for limited periods of time over certain State, Federal, and private lands to accommodate the Department of Defense's Ballistic Missile Defense testing, evaluation and training. The restrictive easement is for the establishment of a safety zone from which all unauthorized persons would be excluded just prior to and during actual launch operations.

The proposed action assumes increases of existing activities at Pacific Missile Range Facility (PMRF) at Barking Sands, Kauai. In addition, instrumentation facilities will be upgraded, along with the construction and operation of additional missile launch sites, sensor and instrumentation facilities, and a missile storage building. The lease of additional land for launch and instrumentation sites is considered for Kauai, Niihau, Tern Island and Johnston Atoll, and ocean areas within and outside U.S. territorial waters.

For State lands, an extension is proposed for the existing restrictive easement to December 31, 2030. State lands at Kamokala Magazines used for ordnance storage would be extended until August 19, 2029.

Areas analyzed as part of the No-action and Proposed Action alternatives include PMRF; Makaha Ridge, Kokee; PMRF support sites (Niihau; Kaula, Maui Space Surveillance System, Maui; Kaena Point, Oahu; Wheeler Network Segment Control, Oahu; Department of Energy Communication Sites, Kauai and Oahu); candidate sites

9-107

(Tern Island and Johnston Atoll); and Ocean Area (outside U.S. territory).

The Environmental Center has reviewed the document with the assistance of Marshall Mock, Physical Science/Kauai Community College; Michael Jones, Physics; Davianna McGregor and Marion Kelly, Ethnic Studies; Whitlow Au, Marine Biologist; and Victoria Cullins of the Environmental Center.

General Comments

In general we find that the document does not meet the content requirements for a Draft Environmental Impact Statement (EIS) as prescribed by Chapter 343, Hawaii Revised Statutes (HRS) and Title 11-200-17 of the Hawaii Administrative Rules (HAR) for the Department of Health. It is difficult to determine the potential cumulative impacts of the proposed action due to the general nature of the document's discussion. While the areas of potential cumulative impact are mentioned in the document, specific information needed to render an informed decision is lacking concerning the following areas.

Purpose and Need for the Proposed Action

Congress has mandated PMRF to be used as the primary test range for Navy Theater Missile Defense tests, even though PMRF was excluded from consideration as a Theater Missile Defense tests in 1994 due to "the lack of the full range of land-based instrumentation sites to observe the intercepts and inadequate land area for interceptor deployment or for placement of instrumentation that would have to be brought in from another range," and recommended other more suitable sites. This does not justify the expenditure of millions of dollars of taxpayer's money to enhance PMRF when other facilities are better equipped.

The Draft EIS provides inadequate detail and no compelling reason why the proposed Restrictive Easement is essential for Theater Missile Defense tests. The document does not indicate what missiles and which launch pads require the Revised Restrictive Easement. It is questionable that the Restrictive Easement is needed, since from the testing scenarios (e.g. Fig. 2.3-2) it appears that missiles could conceivably be launched from ships, aircrafts, or existing PMRF sites, as the Navy ships are within 200 kilometers of PMRF. There is no Congressional mandate to test land-based interceptors at PMRF, and alternative sites are available.

The background section of the document should contain previous environmental analysis including other sites considered and which sites were selected.

The level of cooperation from the State of Hawaii should be disclosed in the document, as it appears to be minimal.

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Alternatives

The Draft EIS fails to consider sufficiently reasonable alternative sites such as the Eglin Gulf Test Range. Alternative sites need to be considered even if Congress continues to mandate that PMRF be the primary range for testing of Navy Theater Missile Defense systems.

Another alternative is to terminate the Restrictive Easement or to specify that the permit to expires at the end of 2002.

Disclosure of Proposed Launches

The Draft EIS does not indicate which missiles are launched at each individual potential launch site. Also, the method of determination of projected Ground Hazard Area radii should be included. This information is necessary to evaluate the adequacy of the Ground Hazard Area and potential impacts at each site.

The Draft EIS appears to lack proper disclosure of the number of activated and proposed launches. Table 3.1.2-1 on page 3-85 contains inconsistencies. There appear to be STARS launches that took place before the Restrictive Easement was in effect, although the table purports to divulge launches under the Restrictive Easement. One STARS launch was reported for 1995 (10,000 foot Ground Hazard Area), although this was never publicly reported. The Final Restrictive Easement on page 2-5, states that there would be no more than eight Vandal launches per year, 15 took place in 1994. The revised Easement should explicitly limit the number of launches so cumulative impacts can be reliably formulated. Table 3.1.2.-1 should cite its source of information along with the amount of time exclusive control of the easement was exercised.

All least four separate references are made to the future use of STARS at PMRF. These are contained in March 24, 1997 issue of Aviation Week & Space Technology magazine; a March 1995 report by the General Accounting Office (GAO/NSAID 95 78); in the PMRF Enhanced Capability EIS Siting Group table dated Jan. 8, 1997, page 7-189; and in the this Draft EIS document on page 2-92 where two programs are cited with that are "reasonably foreseeable" to involve STARS launches at Kauai Test Sites. However, no references to the first three documents are cited in the Draft EIS. Neither are estimates given for the number of STARS launches or when they might occur at the Kauai Test Sites facilities.

While our reviewers are aware that some launch information will remain classified for security purposes, information about the number of these launches should be released. The use of nuclear propulsion, or nuclear simulants such as depleted

uranium, should also be available for public scrutiny. This information is necessary for adequate evaluation of environmental impact.

Specific trajectories and impact zones need to be given in place of or addition to the illustrations given in Figs. 2.3.1-4 and Figs. 2.3.5-1,-2 and -3, to evaluate the risks of various testing scenarios.

The document needs to include a complete list of the missiles and launch pads to which they apply, their Ground Hazard Areas, and the schedule for Theater Missile Defense tests involving PMRF, all launch programs being considered, and how proposed launching scenarios meet program objectives. Without this information, there is no way for the State of Hawaii or the public to assess whether the Restrictive Easement is needed and appropriate.

Missile Reliability

The failure rate of missiles is not included in the Draft EIS. Past launch failures should be provided for examination and to be analyzed for potential impacts at the proposed sites. Reports of the Aries failure at Patrick Air Force Base in Florida indicate that pieces of debris fell on land as far as 13,500 feet from the launch pad.(Red Tigress Incident Report, 23 Aug. 1991). At Vandenberg Air Force Base, on June 15, 1993, a Minuteman failure sent flaming debris plummeting to the ground. The subsequent brushfire scorched 1000 acres, over half of this burned off base. All five attempts at intercepting THAAD targets have failed, along with all four LEAP intercept attempts. Risk analyses for each vehicle should be undertaken and included in the document to determine if the risk of fatality is in indeed below the limits as stated on page 3-189 of the Draft EIS.

Navy Theater-wide Testing

The PMRF Enhanced Capability Coordinating Draft Siting Report, March 3, 1997, contains details about all launch sites considered within 4,000 kilometers of PMRF. These include Midway Atoll, Kure Atoll, Wake Atoll and Kwajalein, three sites in Alaska, and Vandenberg Air Force Base in California. These sites are not mentioned in the Draft EIS as they are more than 1,200 kilometers from PMRF. However, it is clear, from the draft siting report that these sites are under consideration to launch targets for tests of the Navy's Theater-wide interceptors on ships and the Army's THAAD interceptors, which would be launched from Niihau. This seems to conflict with the PMRF Draft EIS statement that the theater-wide program is "not sufficiently developed at this point to evaluate on this document," (page 2-46).

Missile Training Exercises

Use of a "Fake Island" in the shape of Kahoolawe is in disregard to the respect of the culture and spirituality of the Hawaiian people and should be replaced by a island shape that is actually "fake."

Treaty Restrictions

Treaty restrictions are relevant to the proposed Theater Missile Defense tests. Contained in the START treaty are bans on launches from sea-based platforms (Theater Missile Defense Extended Test Range Draft Supplemental EIS, 1998). In addition, targets launched from ships would have to have ranges of less than 600 kilometers to maintain compliance (START Article V, paragraph 18). The Intermediate-Range Nuclear Forces Treaty restricts launches of intermediate range missiles used for research and development to no more than 500 km from the planned target point. (Theater Missile Defense Extended Test Range EIS, Jan. 1994, page 2-10). The document should state whether air-drop targets launched for proposed Theater Missile Defense tests comply with The Intermediate-Range Nuclear Forces Treaty prohibiting air-drop launches with range greater than 500 kilometers. In addition to this, the document should address whether START or other treatics restrict the use of encrypted telemetry data for both targets and interceptors.

Air Quality

Our reviewers contend that air quality monitoring at PMRF has been inadequate and misrepresented. The monitoring equipment outside the Ground Hazard Area does not appear to be operating or within the proper area to perform conclusive testing. The results from the third STARS launch on July 22, 1994 are not included in the assessment. The monitoring report for this launch, which was obtained by our reviewer, shows hydrogen chloride concentration near the launch pad to exceed the 100 ppm level deemed "immediately dangerous to life and health." The U.S. Army Environmental Hygiene Agency Ambient Air Quality Assessment (No. 43-21-N3DD-94) shows carbon dioxide levels from Binos monitor No.4 on page 23 to have the 20 ppm maximum reading before the launch. It has been inferred that the Interscan monitors recording hydrogen chloride levels have saturated at 43.5 and 100-110 ppm, rather than these numbers being peak values, due to inconsistencies between the Sensor Stik and Interscan monitors. Due to the inadequacies in monitoring, it is difficult to evaluate compliance to federal and state standards.

Lead Contamination in Soil

Pages 4-27 and 4-41 state that soil samples near the Vandal launch pad and some

Kauai Test Facilities launch sites show lead contamination due to past missile launches. The document fails to implicate what standards were used to determine that these lead levels are not public health or safety risks.

The document does not identify the soil lead levels after the 15 Vandal launches in 1994 (Table 3.1.2 1, page 3 850). The PMRF Environmental Baseline Study shows soil contamination at this site to exceed the U.S. EPA remediation goal of 500 mg/kg and the State of Hawaii cleanup goal of 400 mg/kg. Public access to this type of information is vital, as the existing Restrictive Easement for STARS and Vandal launches (DEIS Appendix C) states that the Grantee will clean up debris or hazardous substances resulting from its launches. Additionally, the easement is to be terminated if contaminants within the area significantly threaten public health (Appendix C, paragraph 14). In addition, the document fails to address the contaminated soil volume of 1,400 cubic meters at the Kauai Test Facility (Linking Agencies, DOE/EM-0319).

Ground Water Contamination.

The document fails to address the contaminated water volume of 5,700 cubic meters at the Kauai Test Facility (Linking Agencies, DOE/EM-0319).

Kauai

The document should justify the assumption of 30 visitors per day (page 4-71), and compare the suggested daily budget with the federal per diem.

The weapon storage facilities at Kamokala Magazine should be phased out and not expanded as this is a place of cultural significance.

Niihau

The Draft EIS states on page 3-140 that there is a potential for very large fires due to the type of vegetation present. In the event of simultaneous multiple fires, as caused by flaming debris from a failed launch, the proposed plan of action appears inadequate. The document should contain a detailed account of the proposed equipment, its fire fighting capabilities, how water resources will be affected, and the possibility of Niihau residents to be trained and employed to implement the proposed actions.

The document fails to address the issues of water consumption by the project, how residents will be affected, other sources of water for consumption, or mitigation for contamination. Will the proposed runway catchment system be used for consumption?

Landing craft should be banned from beaches during the nesting and hatching

9-110

period of the endangered Green Sea Turtle. Niihau elders should be consulted for the relevant time periods.

Generators should not be located near the beaches. The noise has the potential to adversely affect monk seal activities and turtle nesting.

The document fails to address how sewage waste will be disposed of.

The Protection Protocol should include explicit prohibitions on the gathering of marine or terrestrial resources for consumption by military personnel.

The Protocol should also establish a council of advisors formed by Niihau residents. Their role could include: 1) necessary baseline studies and monitoring of natural and cultural resources; 2) the option to terminate operations and enter into mitigation discussions with the Navy; and 3) development and presentation of the cultural sensitivity program (page 4-150).

A condition of the agreement allowing PMRF to operate on Niihau should require the inclusion of a training program for residents in construction and clean-up operations.

The impacts on ceded land and its beneficiaries are not addressed in the Draft EIS.

Tern

The Ground Hazard Area for Tern Island barely excludes the U.S. Fish and Wildlife Service buildings there. The document should contain a detailed explanation of how the Ground Hazard Area was determined, the missiles to be launched, and if it is a Preferred Alternative site.

The Draft EIS does not offer supportive evidence that human disturbance will not cause a decline in the monk seal population on Tern. As one of the few areas where the endangered monk seal population is increasing and an area found to be critical habitat for the seal, Tern should not be considered for PMRF activities. Likewise, immediate and cumulate impacts to the State endangered green sea turtle and nesting sea birds are not discussed.

Johnston Atoll

The document should contain a detailed explanation of how the Ground Hazard Area was determined, the missiles to be launched, and if it is a Preferred Alternative site.. The most likely missile appears to HERA, which has a Ground Hazard Area which would include the incinerator and chemical weapons storage area in its minimum Ground

Hazard Area.

Biological Resources and Compatibility with National Wildlife Refuges

The cumulative impacts for toxic substances in soil and water, noise and human disturbance during breeding and calving for humpbacks, breeding and birthing for monk seals, and nesting for turtles and endangered species of waterbirds (coot, duck, gallinule, and stilt), are not addressed. There is no discussion of about the timing of launches at PMRF, Niihau, or elsewhere to avoid breeding and calving season for humpback whales or the nesting season for green sea turtles.

The potential for disturbance of monk seals and other marine life from sonic booms from low flying aircraft and the coupling of the acoustic energy into the water needs to be addressed in the document.

The potential for and mitigation of introduction of alien species is not addressed in the Draft EIS. Alien plants, insects, and animals (including marine species) have been recognized a major threat to native ecosystems.

The proposed actions may conflict not only with objectives of National Wildlife Refuges, but also with objectives for the Hawaiian Monk Seal Recovery Plan and the State of Hawaii's Conservation District.

Public Access to Related Documents

The Navy has demonstrated glaring disregard for serious public involvement in review of documents related to missile launch programs at PMRF.

The regulatory background for each addressed environmental resource does not appear in Appendix G as stated. Neither does the Jan. 1996 document referenced on page 4-41 appear in the section 8.9 . The literature review used by the Navy to determine the impacts of military noise on animals is not included as part of the Draft EIS. NEPA requires the Navy to include this evidence in the Draft EIS and make this information readily accessible to public review.

Our reviewers requested documents referenced in the Draft EIS that were not readily available to the public. Many of these documents were not received within an adequate time frame to insure proper impact analysis. Although an extension of the comment period was requested of the Navy to allow time for proper examination of the documents, it was denied as being disruptive to their time schedule.

Conclusion

Given the scope of the project, the expenses involved, and the descriptions contained within the Draft EIS of likely impacts, our reviewers do not agree that few adverse impacts would result from the proposed action. The Draft EIS also fails to adequately describe or analyze the indirect effects of the action. Specific impacts in scenarios related to aborted to launches and storage of hazardous materials in sensitive (hurricane, tsunami prone) areas are omitted. In addition mitigation measures for safety during transportation of hazardous materials are not present in the document.

Sincerely,

John Harrison

John T. Harrison
Environmental Coordinator

c: OEQC
Roger Fujioka
DLNR, Gary Martin
Michael Jones
Whitlow Au
Davianna McGregor
Marion Kelly
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IN REPLY REFER TO:
5090
Ser 00/ 1127
23 OCT 1998

Dr. John T. Harrison
Environmental Center
University of Hawaii at Manoa
Crawford 817
2550 Campus Road
Honolulu, HI 96822

Dear Dr. Harrison:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

General Comments

By performing National Environmental Policy Act (NEPA) analysis early in the decision process we can have the most effect on program decisions. When specific information is known it is used. If more specifics are not known, the problem is bounded as much as possible in order to assess the range of impacts possible. We believe this structured analysis does comply with Hawaii Revised Status (HRS) 343.

Purpose and Need

Disagreements with respect to political decisions are more appropriately addressed in the political arena. In addition, the mission requirements that give rise to an agency proposal are not an appropriate item of debate in an EIS. NEPA's purpose is to ensure that consideration is given to potential environmental effects of proposals for major federal actions. Public and agency comment mechanisms are designed to ensure that the analyses performed pursuant to NEPA and HRS 343 consider fully these potential environmental effects by allowing the potentially affected public and local and resource responsible agencies the opportunity to provide meaningful input to the analysis process.

It should be noted that the 1994 analysis you reference did not consider sea-based TBMD testing and training. The primary purpose of the enhancements at PMRF would be to support Navy TBMD testing and training as well as to provide the capability for future multi-service integrated testing of Navy and Army systems. While other ranges have been and are being evaluated for a variety of missile testing programs, the purpose of this EIS is limited to evaluation of enhancements required to comply with Congressional direction that PMRF be the primary range for TBMD testing.

Extensive involvement of state agencies has occurred throughout the EIS process. This consultation included periodic meetings with Department of Transportation, Department of Land and Natural Resources, Department of Health, Department of Business, Economic Development and Tourism, and the Office of Environmental Quality Control as well as frequent meetings with the Governor's Office and Department Heads. Thank you for bringing to my attention the fact that this involvement was not described in the draft document.

Alternatives

See our answer under Purpose and Need above.

With regard to extension of the Restrictive Easement, PMRFs mission requires the capability to establish adequate safety zones. To meet this requirement, as with other requirements, periodic updates and extensions of land use agreements are necessary.

Disclosure of Proposed Launches

The launch operations discussion of Section 4.1.1.7.1.1 contains a detailed discussion of the numerous factors that determine the shape and dimensions of the Ground Hazard Area (GHA). The identified GHA represents limiting constraints. Any class of target or interceptor missile may be launched from the potential launch sites as long as the required safety analysis confirms that all debris from a missile mishap would be contained within the identified GHA.

The proposed action is to enhance the capabilities of PMRF. The EIS has been written to allow flexibility for PMRF while fully considering potential environmental effects, without the constraint of a schedule for launches of particular missiles at particular sites. This approach has the added benefit of allowing environmental consideration to influence and shape final program demand.

The Restrictive Easement EIS described what was planned at that time. However, the analysis considered the total number of possible closures (30 per year). The easement also used the same assumptions, but only restricted the maximum number of closures of the easement per year. Table 3.1.2-1 has been revised to reflect more accurately the times the easement was activated.

As discussed on page 2-92 there are two other non TMD programs which may use the Strategic Target System. No specific information exists on quantities or dates for these activities.

Nuclear propulsion, nuclear simulants, or depleted uranium, are not a part of the proposed action for use at PMRF.

Specific trajectories and impact zones are not determined at this time. Use of air and sea launch targets allows a wide variety of test scenarios. Broad open ocean affects of testing have been evaluated to accommodate a wide range of specific scenarios. Similarly, the environmental effects of missile launches which require exercising the GHA easement have been analyzed as a class of similar effects on the environment by similar missiles versus an analysis of specific missiles.

Missile Reliability

Reliability of missiles is calculated based on individual component reliability and all failures do not result in flight termination. Also, launches of missiles are discrete events and the reliability of individual missiles cannot be used to predict overall program reliability. As such, our approach has been to establish safety areas surrounding these launches and to include the possibility of early flight termination in our analysis of environmental effects. Historically, this conservative approach has been effective in ensuring safety and minimizing of environmental effects.

While specific risk analyses for each vehicle proposed have not been completed for inclusion in the EIS, Range Safety Approval and Range Safety Operation Plans are and will be required for all weapons systems using the PMRF Range as a matter of course independent of the EIS process. Routine practice by PMRF includes notices to mariners and airmen and surveillance of the hazard area to determine it is clear. With these practices and adherence of mariners and airmen to these warnings, minimal risk exists to public safety from these activities.

Navy Theater-Wide Testing

As stated on p. 2-46 of the Draft EIS, the Theater-Wide system is not sufficiently developed at this point to be evaluated in this document. Therefore, sites that would be considered for theater-wide system testing were not included in this document. The Draft Siting Report did not reflect the status of the theater-wide program but was a proactive planning document that attempted to identify sites that could be used for future theater-wide testing.

The EIS, which was published after the draft Siting Report was prepared, describes the most up-to-date Navy policy on Area and Theater testing programs. If additional requirements for Navy Theater wide are defined, appropriate NEPA analysis would be conducted.

Missile Training Exercises

While the shape of the computer-generated island used for training exercises at PMRF resembles the shape of Kaho'olawe, no insult was intended. The outline of the

Naval Gunfire Scoring System (NGSS) was created to be compatible with existing software and procedures. This allowed the Navy to minimize costs.

Treaty Restrictions

NEPA allows for evaluation of reasonable and foreseeable alternatives. We will not implement any actions that are not in accordance with current U.S. policy on treaty compliance. This is a factor that will be considered by decision-makers in determining what testing scenarios may be conducted at PMRF.

Air Quality

The Strategic Target System Environmental Monitoring Program report for the 26 February 1993 launch of the Strategic Target System from PMRF analyzed pre- and post-launch air quality and confirmed there were no exceedances of guidance levels at any public exposure location. Sections 3.1.1.1 and 4.1.1.1 address potential effects to air quality. We acknowledge your opinion that monitoring was inadequate to determine the effects on air quality. We believe the monitoring was adequate to determine any realistic threat to human health and safety outside the GHA. One function of the GHA is to make sure the public is not within an area of potentially hazardous air pollutants during a launch.

Lead Contamination in Soil

The Vandal site is within the PMRF boundary and is restricted and therefore does not pose a public health risk. All of the soil samples were well below the U.S Environmental Protection Agency (EPA) and State of Hawaii cleanup goals for commercial or industrial use property.

Ground Water Contamination

This reference was to "contaminated water" not contaminated groundwater. Analysis shows that most of the water was not contaminated above background levels. Some samples did have organic and lead contamination that was above background levels but not above EPA action levels.

Kauai

The use of 30 visitors per day is based on historical data as described in Section 3.0 of the EIS. The use of $189.00 per day is based on per diem allowances ($180.00 from May 1-November 30, and $206.00 from December 1-April 30) in effect as of January 1, 1998.

To date, Kauai archaeologists and elders have not indicated to us that a Leina-a-ka-uhane is located in the area of the magazines. It should be noted that no modifications to the World War II-era man-made caves or the ridge itself are being proposed.

Niihau

While fire protection plans will vary depending on the type of activities conducted, basic elements could include vegetation clearing, cutting fire breaks, manning water trucks, and actual fire fighting if required. Typically, a PMRF helicopter is airborne with a fire bucket to assist during launch activities. It is anticipated that Niihau Ranch would be contracted to support some, if not all, of their activities.

Water consumption related to activities should be minimal; primarily for consumption by workers, maintenance, and fire fighting. Water for these types of activities would be barged to Niihau with no impact on island reserves. Past surveys of Niihau suggest that fresh ground water sources are extremely limited with high salinity. There are no plans to develop on-island water sources; however, the proposed airstrip if constructed will likely serve as a catchment system. Alternatively, the Navy in consultation with USGS, the land owner, and the Niihau residents could consider alternative treatment techniques such as solar distillation to provide minimum water supplies from saline sources. This approach could provide supplemental water resources for residents when Navy activities were not occurring. Catchment water could be treated for drinking as well as for other uses.

During operations involving beach landings, a Navy or Niihau Ranch representative will survey beach areas for nesting turtles or monk seals. In cases where monk seals are observed, efforts would be made to divert to an alternative landing site. Your suggestion of consulting with Niihau elders on the turtle nesting season is a good one and will be recommended.

All proposed sites for generators on Niihau have deliberately been set back well away from beach areas.

Sewage deposition and use of solar powered composting toilets have been discussed with Niihau Ranch. While plans have not been finalized, as stated in Section 4.2.1.12.2, some type of portable toilet will be used.

Your proposed changes to the Niihau protocol have been taken under advisement and will be discussed with Niihau Ranch. While not specifically stated, proposed actions on Niihau are first discussed with the PMRF/Niihau liaisons and the Niihau Ranch Manager. We understand that there is a process for all decisions affecting Niihau that includes island residents. We envision continued dialogue with the Niihau owners and residents for the duration of programs using the island.

The Land Use Sections of Chapters 3 and 4 of the Draft EIS describe both the existing land uses and the compatibility of the ongoing and proposed activities with existing land use plans and policies for each location. Further discussion of ceded lands is in Appendix E, Land Title.

Tern Island and Johnston Atoll

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives. As to threatened and endangered species such as the monk seal and green sea turtle, we are in consultation with U.S. Fish and Wildlife Service and the National Marine Fisheries Service (NMFS) under the Endangered Species Act as indicated in Appendix K.

Biological Resources and Compatibility with National Wildlife Refuges

As noted above, Tern Island has been eliminated from the proposed action. However, we felt it worthwhile to address specific concerns raised in your letter. The potential impacts of missile launches on biological resources at launch sites and to the soil and to water surrounding the sites has been extensively analyzed. Section 4.3.1.3.2.2 has been revised to reflect the conclusions of these analyses and to more fully discuss the potential impacts to monk seals and sea turtles at Tern Island.

The document addresses the impacts of potential impacts of sonic booms on monk seals, concluding that there is the possibility of startling seals. Section 4.1.1.3.1.3 describes the studies that the Navy is conducting to obtain more information concerning potential noise impacts to marine mammals. The EIS and Management Plan for the Hawaiian Islands Humpback Whale National Marine Sanctuary indicated that the Navy has consulted with NMFS concerning its activities in Hawaiian waters and concluded that "no adverse effects to listed species were identified, provided that certain mitigative measures were instituted by the various commands active in areas where humpback whales occurred."

Public Access to Related Documents

Section 3.1 of the EIS has been changed to reflect that regulatory background for each addressed environmental resource appears in Appendix J. We have provided all requested documents to the UH library. The reference for the January 1996 document has been corrected. The study on noise effects on wildlife, Larkin, was referenced in the Draft EIS on page 4-166 and was included in the references section. We have received no requests for copies of this document.

General Comments

We acknowledge your disagreement with our conclusion that few adverse impacts would result from the proposed action. We believe that the EIS adequately addresses all reasonably foreseeable impacts of the proposed action. The document fully documents all potential missile mishap impacts, as well as storage and transportation of hazardous materials.

We appreciate your interest in our proposal.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0310

P-W-0315

BENJAMIN J. CAYETANO
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HISTORIC PRESERVATION PROGRAM
LAND MANAGEMENT
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WATER AND LAND DEVELOPMENT

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May 29, 1998

Ms. Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai HI 96752-0128

Dear Ms. Mossman:

Subject: Draft EIS for Pacific Missile Range Facility's Enhanced Capability: potential impacts to living aquatic resources and their habitats on and around Kauai and Niihau

General Comments:

The DEIS proposes to give a comprehensive environmental analysis of the environmental impacts of the Navy's proposal to enhance the capability of PMRD to accommodate the Department of Defense's (DOD) Ballistic Missile Defense (BMD) testing, evaluation, and training. Activities related to BMD testing, evaluation and training, may negatively impact aquatic habitats, water quality, and aquatic species, including threatened and endangered species such as Hawaiian monk seals, green sea turtles, and humpback whales all of which occur in and around the waters of Kauai and Niihau.

The DEIS states that biological resources will be negatively impacted if the proposed actions are approved and implemented on Niihau. Furthermore, the DEIS does not mention the potential negative and cumulative impacts to soil erosion if the proposed action is implemented at the Makaha Ridge site. Makaha Ridge has a major soil erosion problem that is negatively impacting coral reefs along the coastline from Makaha Point to Milolii.

Also, there is no mention of potential impacts to instream flows that may result from new wells being drilled and pumped from either Makaha Ridge or Kokee sites. Similarly, although the DEIS states that the proposed action on Niihau may disturb Hawaiian monk seals and sea turtles that bask on Niihau beaches, there is no mention of potential mortality related to vessel impact, and no baseline data are given on the population sizes and distribution of seals and turtles on Niihau. Resource distribution maps should be developed showing the most frequent haul out

areas for both monk seals and green sea turtles on Niihau. Also, these maps should show the location of wetlands and note if any of these areas are within the 20,000 ft. ground hazard area. These wetlands have not been adequately surveyed and have no biological inventories, therefore they may contain rare and endemic species (such as brine shrimp and aquatic insects) unique to Niihau.

Of all the alternative sites, the Johnston Island site may offer the only safe location because the area is already impacted or contaminated with Plutonium, Dioxin, nerve gas storage, raw sewage discharges, and other impacts.

Due to the general nature of the proposed application, the Division of Aquatic Resources reserves the right to implement future aquatic resource protection and mitigation actions or restrictions when more detailed information becomes available.

Specific Comments:

p.2-73, needs to show locations of areas with severe soil erosion and develop a soil conservation plan with application of best management practices (BMP's) with the guidance of the USDA Natural Resources Conservation Service;

p. 2-76, inadequately shows the distribution and location of wetlands on Niihau since there are more wetlands, some located at the north end of the island; should also show areas where monk seals and sea turtles commonly haul out on beaches/shorelines;

p. 3-26, and 3-33, although it mentions the north Kauai boundary of the Hawaiian Islands Humpback Whale National Marine Sanctuary, it neglected to mention that over 90% of all humpbacks in Kauai's waters are seen between west Kauai and the east side of Niihau, in the waters offshore of PMRF;

p. 3-28, neglected to mention that green sea turtles are known to have nested (and hatchlings produced) within the beach area adjacent to the Kauai PMRF Test Facility in 1985; similarly, in 1961 a monk seal pup was born at Poli Hale beach and at least one monk seal hauled out on the beach at Major's Bay within the Kauai Test Facility in 1996;

p. 3-34, Kauai (including Niihau) should also be listed as a "monk seal breeding island" since seal pups have been born on Kauai in 1961, 1989, 1991, and 1994, and at least three breeding adult pairs are living on Kauai in 1998; the impacts of the proposed activities on a breeding population of Hawaiian monk seals has not been adequately addressed;

p. 3-86, there is no mention of the contact protocol when Humpback whales, other marine

mammals, sea turtles or monk seals are sited on beaches or within inshore areas during launches within the Ground Hazard Area (GHA); also, surveillance for these protected and endangered marine animals should not be limted to visual survey methods, and all launches should be postponed until the GHA is clear of protected marine animals;

p. 3-96, 3-183, 4-58, and 4-72, the increase in size of the GHA on either Kauai or Niihau will likely further restrict recreational and commercial fishing activities along the shoreline and in nearshore waters;

p. 3-98, there is no mention what methods will be taken to assure sea turtle nests will not be negatively impacted by vehicles operated on the beach associated with the proposed project; if turtle nests are run over by vehicles it prohibits the hatchlings from being able to dig out of the nest;

p. 3-105 thru 108, again does not mention the severe soil erosion in parts of the Makaha Ridge area that is negatively impacting coral reefs in inshore areas of the lower watershed, yet states that proposed activities may be adversely impact soils; environmental assessments are not taking a watershed or ecosystem approach to natural resource protection;

p. 3-134, again, does not show total number and location of wetlands on Niihau, some of which are located at the northern end;

p. 3-135, need to develop a map to show sea turtle and seal haul out areas;

p. 3-137, soil erosion is severe on Niihau due to feral sheep, pigs, and cattle ranching; the proposed project may adversely affect soils and therefore the cumulative impacts of all of these activities should be addressed; maps showing areas of "red water" after heavy rains should be developed, and baseline data (e.g., species composition, distribution, percent coverage) on the coastal marine biota adjacent to these red water areas should also be developed;

p. 3-145, a map should be included showing the location of potable drinking water wells;

p. 3-147, the "impacted area" on Kaula is larger than the area shown since some ordinance lands in surrounding waters, negatively impacting fishery resources; such target practice should be restricted to a land-based site somewhere in the U. S. away from economically important fishery resources;

p. 3-195 and 196, Meyer neglects to mention that the arid, over-grazed, island of Niihau with depressed economy and cattle prices is, in part, due to cattle grazing; a shift from cattle ranching to intensive or semi-intensive aquaculture of mullet, awa, and moi, using renewable co-

generation systems of wind and solar voltaic could make Niihauans economically self-sufficient and support a thriving export (to Kauai) aquaculture industry;

p. 4-13, neglects to mention that all fishes with swim-bladders can also detect or react to acoustic emissions, and the impact of these emissions on these fishes is unknown;

p. 4-15, I question the statement that " the potential harmful effects of amphibious operations on marine mammals (and sea turtles) is extremely small" for the following reasons:

1. vessel impact related mortality of sea turtles is relatively common in Nawiliwili Harbor and in areas along the Na Pali Coast where vessel travel is common;

2. at least one monk seal was killed by contact with a vessel on Niihau (Keith Robinson, pers. communication);

p. 4-15, lost or otherwise nonretrievable torpedoes and debris is in violation of the State's litter laws that prohibit the accident or intentional discharge of paper, plastic, metal or wood into the environment; also, damage to coral reefs is prohibited by State law; baseline data should be collected and mapped showing the coral reef species composition, distribution, and percent coverage of coral and other benthic species;

p. 4-32 and 48, should mention that launch operations will be scheduled only during the period May-November, during the period when humpback whales are not in the nearshore waters; also, protocol should be developed for flight termination that results in hazardous debris being discharged into coastal waters; DAR should be contacted to assess impacts to living aquatic organisms and their habitats;

p. 4-53, states that the potential ingestion of toxins by food fish species would be remote because of the dilution affect of sea water and the relatively small area to be affected"; since no data are given to determine the possible bioaccumulation or biomagnification of this toxins, and considering that the majority of commercially caught fish in Hawaii are pelagic and migratory, a table should be presented listing the potential toxins, their toxicity levels, and the fact that they are known or not known to bioaccumulate or biomagnify in aquatic organisms;

p. 4-88, the cumulative impacts of existing and future proposed project soil erosion at Makaha Ridge and at Milolii Ridge on the coral reef community along the shoreline in the lower portion of these watersheds has not been adequately addressed;

p. 4-141, the wetlands within the GHA have not been adequately surveyed and have no biological inventories, therefore they may contain rare and endemic species (such as brine shrimp

and aquatic insects) unique to Niihau;

p. 4-139, there should be a clear protocol and emergency plan for possible accidents related to the spillage of fueled liquid missiles that travel by truck from Port Allen to PMRF, and from PMRF to Niihau; water bodies crossed during transportation include the Hanapepe and Waimea Rivers, and the Kaulakahi channel; where does DAR fit into the damage assessment?

P. 4-150, it is highly questionable that flight termination, or an explosion, would not impact water quality, fish populations or subsistence fishing.

Very truly yours,

William S. Devick
Acting Administrator

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1131
23 OCT 1998

William S. Devick
Acting Administrator
State of Hawaii
Department of Land and Natural Resources
Division of Aquatic Resources
1151 Punchbowl Street
Honolulu, HI 95513

Dear Mr. Devick:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

p. 2-73. – No impacts to soil erosion are anticipated. As outlined in Section 4.1.3.5.2 of the Draft EIS, potential mitigation measures include use of best management during construction to reduce the potential for soil erosion, such as: minimizing the area exposed during grubbing; use of soil stabilizers; use of sandbags for diverting flow and creating sediment basins; adding protective covering to slopes (mulch, straw, plastic netting or some combination thereof; and re-vegetating slopes and open areas as soon as possible to enhance long-tern stability. Since the Proposed Action will not add to, or exacerbate, any existing or past erosion problems, we do not believe there is a need to identify locations of severe soil erosion in the document, or for this program to develop a soil conservation plan.

p. 2-76. – Potential impacts to wetlands, monk seal haul-out areas, and sea turtle nesting areas will be prevented by avoidance. The sites considered were selected only after site visits with the Niihau elders and the island's owners so as to avoid these sensitive areas. The EIS uses the best available data that we found on existing locations of wetlands and haul out areas.

p. 3-26 and 3-33 – We have no independent verification that over 90 percent of all humpbacks in Kauai's waters are seen between west Kauai and the east side of Niihau, and in the waters offshore of PMRF. This EIS uses the best available data found on whale populations.

p. 3-28 – Page 3-34 of the Draft EIS does acknowledge that green sea turtles have nested, and that monk seals have been known to haul out, on beaches adjacent to PMRF.

p. 3-34 – Section 3.1.1.3.2.4 of the EIS has been modified to acknowledge that monk seals may have bred on Kauai.

p. 3-86 – As identified in Section 4.4.1.2.7.2 of the Draft EIS (pp. 4-217 to 4-218), since 1990, the Commander Naval Surface Group, Middle Pacific, has published The Shipboard

Environmental Coordinator's Guide to Environmental Compliance. This guide informs ships of the National Marine Fisheries Service prohibition of approaching marine mammals. Also, all Navy ships calling on Hawaiian ports are advised of key natural resource issues, including precautions regarding marine mammals, in the reply to their request for a berth. Because this anticipates the actual date of arrival by approximately two days, the ships are advised of humpback precautions well before they approach Hawaii. Commander, Third Fleet Operation Order 201, a basic reference for commands planning or conducting operations from just east of Guam to the west coast of the United States, describes the sanctuary and the prohibition on taking marine mammals. In addition, there is an annual ship, submarine, and aircraft notice in mid-November announcing the arrival of the marine mammals. Reminding them of existing restrictions regarding the humpback whale. This ensures that protection of the humpback whale is officially considered during the planning and conduct of operations.

If marine mammals, sea turtles, or monk seals are sited on beaches or within inshore areas within the Ground Hazard Area (GHA) before a launch, or within any area involved in the Proposed Action activities, the launch will not proceed until the area is determined clear. We believe visual survey methods are the most accurate and effective to ensure the area is clear of marine mammals.

p. 3-96, 3-183, 4-58 and 4-72 – The Navy does not propose to increase the size of the GHA on Kauai. Sections 4.2.1.8.2 and 4.2.10.2.2 describe the effects of closures of the Niihau GHA on commercial and recreational fishing activities.

p. 3-98 – All reasonable means will be taken to avoid areas of known sea turtle nests. This is discussed on pages 4-11 and 4-129 of the Draft EIS.

p. 3-105 thru 3-108 – The EIS (Section 3.1.3.5.2.3) now acknowledges the soil erosion in parts of Makaha Ridge and the negative impact on the coral reefs below due to the increase in turbidity and decrease in available light.

p. 3.134 – The total number and location of wetlands on Niihau have not been identified, since the sites considered for the Proposed Action were all selected with the help of the island's owners so as to avoid potential impacts to these sensitive areas.

p. 3-135 - Location maps of sea turtle areas and monk seal haul out areas on Niihau have not been developed, since the sites considered for the Proposed Action were all selected with the help of the island's owners and inhabitants so as to intentionally avoid potential impacts to these sensitive areas.

p. 3-137 - No impacts to soil erosion are anticipated. As outlined in Section 4.2.1.5.2 of the Draft EIS, potential mitigation measures include use of best management practices during construction to reduce the potential for soil erosion, such as: minimizing the area exposed during grubbing; use of soil stabilizers; use of sandbags for diverting flow and creating sediment basins; adding protective covering to slopes (mulch, straw, plastic netting or some combination thereof; and re-vegetating slopes and open areas as soon as possible to enhance long-tern stability. Since the Proposed Action will not add to, or exacerbate, any existing or past erosion problems, there is no need to identify locations of "red water areas" or to collect baseline data on the coastal marine biota adjacent to these red water areas in the document.

p. 3-145 – The program will not use Niihau sources of potable drinking water, nor contaminate groundwater, so there is no need to identify the location of potable drinking water wells on Niihau.

p. 3-147 – The fact that ordnance occasionally lands in the waters surrounding Kaula is acknowledged in the Draft EIS in Section 3.2.2.5.2. We believe the effects on fish are minimal. In addition, the Navy in consultation with the U. S. Fish and Wildlife Service and the National Marine Fisheries Service, will develop monitoring plans appropriate for Kaula that include participation of appropriate Navy explosive ordnance disposal personnel.

p. 3-195 and 3-196 – Discussion of appropriate land uses, with respect to grazing/ranching and the election of intensive or semi-intensive aquaculture, etc., is outside the scope of this EIS.

p. 4-13 – The possibility that fish with swim bladders may be affected by, or react to, acoustic emissions is now acknowledged in the EIS in Section 4.1.1.3.1.3.

p. 4-15 – Amphibious operations take into account planning and visual surveys and planning to avoid known locations of haulout areas. PMRF has no records of mammals being injured in these operations. The conclusions about the potential harmful effects of amphibious operations is unchanged.

p. 4-15 – Section 4.1.1.3.1.4 states that marine biological surveys conducted in October 1997 for this EIS did not reveal any indication of adverse impacts to the coral reef from submarine launched mobile mines (SLMMs). Most of the SLMMSs are in fact recovered. Sections 3.1.1.3.2.2 and 3.1.1.3.2.3 in Chapter 3 describes the coral reef species composition. Use of munitions in accordance with their designed purpose is not considered to be a discharge of waste.

p. 4-32 and 4-48 – This section of the document addresses health and safety impacts, not biological resource impacts. Section 4.4.2.2 addresses the potential impacts to biological resources in the Ocean Area, including potential impacts from sonic boom overpressures, shock wave impact or direct contact impacts, ingestion of toxic solutions generated from unburned propellant mixed with seawater, ingestion of pieces of unburnt propellant, and entanglement with submerged parachutes. The probability of adverse impacts to the humpback whale are judged to be so low, that scheduling launches only during the May-November period is deemed unnecessary and unwarranted.

p. 4-53 – As Section 4.4.2.5.1 explains, even in the most conservative accident scenario, any toxic concentrations of hydrogen chloride and aluminum oxide would be buffered and diluted by sea water to non-toxic levels within minutes. Consequently, the potential for possible

bioaccumulation or biomagnification in pelagic fish is considered extremely remote, and providing the suggested table is unwarranted.

p. 4-88 – Since no impacts to soil erosion have been identified, the possibility of additive, incremental and cumulative impacts does not exist.

p. 4-141 – The probability of the wetlands identified in Figure 4.2.1.7-1 being impacted by debris from a launch-related accident is so low, that a biological inventory of any rare and endemic species unique to Niihau is unwarrented.

p. 4-139 – Section 4.2.1.7.2 addresses the potential for health and safety impacts on Niihau. Section 4.1.1.7.2.2 identifies transportation procedures, or protocol, for health and safety concerns on PMRF/Main Base. Liquid fuels will be transported in DOT-approved containers equipped with secondary containment. Section 2.3.1.3.1 discusses alternatives and the associated procedures and protocols for liquid fuel transport. In the unlikely event of an accidental spill, all appropriate local, state and federal agencies would be notified.

p. 5-150 - We believe that the subsistence impact assessment presented in Section 4.2.1.10.2.2 is accurate.

We appreciate your interest and look forward to continuing to work with your office on this important effort.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0315

9-119

P-W-0316

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

LAWRENCE MIIKE
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

In reply, please refer to

June 2, 1998

97-111A/epo

Ms. Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

Dear Ms. Mossman:

Subject: Draft Environmental Impact Statement (DEIS)
Pacific Missile Range Facility (PMRF) Enhanced Capability
Kauai, Niihau, Tern Island, Johnston Atoll, and Areas Northwest of Kauai Within and Outside U. S. Territorial Waters

Thank you for allowing us to review and comment on the subject document. We have the following comments to offer:

Air Quality

1. The terms "health base standards" and "health-based guidance," are used throughout the document but are not defined in qualitative and quantitative details. Qualitative detail should include but not be limited to a discussion on who developed these standards, how these standards were determined, and a publication source for these standards. Quantitative detail should include a list of the appropriate standards for each of the pollutants these standards apply to. Are the "health-based standards" and "health-based guidance" terms the same? If so, only one should be used throughout the document. A more detailed definition will make it easier to relate to such statements as "no impacts or no adverse impacts" and "emissions are below health-based standards."

2. Section 3.1.1.1.2.2 Regional Air Quality on page 3-12 states, "The only sampling station on Kauai is located in Lihue and monitors TSP and PM-10." The statement is incorrect and should be amended because the Lihue sampling station only samples for PM-10 and not TSP.

3. Section 3.1.1.1.2.3 Air Pollution Emissions Sources on page 3-12 states "PMRF/Main Base has a proposed Title V Air Permit pending final approval." The U. S. Navy was issued a Title V Covered Source Permit (No. 0110-01-C) by the State of Hawaii for five diesel generators at PMRF/Main Base on January 28, 1998. The permit will expire on January 1, 2003. The sentence is incorrect and should be amended.

4. Section 3.1.1.1.2.3 Air Pollution Emissions Sources on page 3-12 states, "This Air Permit will cover all stationary emission sources on PMRF/Main Base." The sentence should be amended to state that the permit will cover all significant stationary sources on PMRF/Main Base.

5. Section 3.2.1.1.2 Affected Environment on page 3-133 should also include the two U. S. Navy diesel engine generators on Niihau, which are permitted by the State of Hawaii.

6. Section 4.1.1.1.1 No-action Alternative-Air Quality, PMRF/Main Base on page 4-2 under Land-based Training and Operations should be amended to read, "The State of Hawaii has issued a Title V Covered Source Permit (No. 0110-01-C) for the five diesel generators at PMRF/Main Base on January 28, 1998. The permit covers all significant stationary sources on PMRF/Main Base and limits the amount of pollutants the sources can emit."

7. Section 4.1.1.1.1 No-action Alternative-Air Quality, PMRF/Main Base on page 4-5 under Land-based Training and Operations states "Since this screening analysis indicates there is no potential for exceedances for the NAAQS or health-based guidance beyond the ground hazard area, no further analysis is conducted for the Hawk launch or mishap scenarios." The sentence implies that the screening analysis indicates that there is no potential for exceedances for the NAAQS or health-based guidance within the ground hazard area as well as beyond the ground hazard area which was specifically stated. If this is the case, the sentence should be expanded to specifically state that there is no potential for exceedances within the ground hazard area as well as beyond the ground hazard area. The document should not be limited to human health impacts. There are still significant/insignificant environmental impacts within the ground impact area even if the public would not be within the area. Both impacts should be described throughout the document.

8. Table 4.1.1.1-2 on page 4-5 lists specific values under the Guidance Level column. Do the values represent the "health-based standards" mentioned throughout the document or the "short-term guidance concentrations" discussed in the fifth sentence below the table? Is "health-based standards" the same as "short-term guidance concentrations?" If so, only one term should be used throughout the document. If not, the term "short-term guidance concentrations" need to be qualitatively defined.

9. Explain what the values in the Distance to Maximum Concentration column in Table 4.1.1.1-2 on page 4-5 mean? It appears that the 610m (2,000 feet) ground hazard area is too small if the maximum concentrations are 1.935-1.936 kilometers away.

10. The fifth sentence of the paragraph under Table 4.1.1.1-2 on page 4-5 states "For nominal launch conditions, this analysis indicated no potential for exceeding applicable short-term guideline concentrations." This sentence should be expanded to include an assessment of the results of Talos motor emissions within the ground hazard area. A table similar to Table 4.1.1.1-2 would be helpful in quantitatively describing the impact.

11. The third sentence of the second paragraph under Table 4.1.1.1-2 on page 4-5 should describe in more detail what the short-term exceedances are. A table similar to Table 4.1.1.1-2 would be helpful in quantitatively describing the short-term impact. The document should address the impact to the environment as well as to human.

12. Section 4.1.1.1.1.1 Base Operation and Maintenance on page 4-6 states that "no adverse impacts to air quality are anticipated for the continued use of these generators." How is the term "adverse impacts" defined? Is this a fact because the power generators would be operated in compliance with the permit conditions? If so, the sentence should be expanded to state this fact.

13. Section 4.1.1.1.2 Proposed Action-Air Quality, PMRF/Main Base on page 4-6 again mentions the term "adverse impacts." How is the term defined?

14. Section 4.1.1.1.2 Proposed Action-Air Quality, PMRF/Main Base on page 4-6 states "No missile proposed for launch would emit greater exhaust components than those used for the analysis of air quality impacts for the three primary ground hazard area distances." A table comparing the

proposed missile exhaust component concentrations and the missile exhaust concentrations designated for each respective ground hazard distance/area should be included to quantitatively substantiate this sentence.

15. The sixth sentence of the third paragraph on page 4-31 should be expanded to characterize the toxic fumes in more detail and to describe the environmental impact regardless if the area was cleared of unprotected personnel.

16. Section 4.1.4.1.2 Proposed Action-Air Quality, Kokee should be expanded to address whether the proposed action will result in the increased use of generator power and consequently, in the increase of generator emissions. If emissions are expected to increase, an amendment to the existing Noncovered Source Permit may be required since emissions will no longer be in compliance.

17. Section 4.2.1.1.2 Proposed Action-Air Quality, Niihau on page 4-125 should be expanded to address whether generator emissions will increase such that the existing permit needs to be amended to include increased emissions.

18. The first paragraph on page 3-143 states "Salt ponds on the southern end of the island are used by the Niihau residents for their salt needs." Section 4.2.1.7.2 Proposed Action-Health and Safety, Niihau on page 4-142, states that "the salt ponds at the southern end of the island would not be impacted by launch debris in the event of a flight termination." A figure of Niihau should be added to the document which indicates the location of the salt ponds on Niihau. Are these salt ponds within the 20,000 feet Ground Hazard Area? If so, how will the salt ponds be protected from contamination if a missile flight is terminated or a mishap occurs?

Due to the general nature of the submittal, we reserve the right to implement future environmental health restrictions when more detailed information is submitted.

Should you have any questions on this matter, please call Mr. Clyde Takekuma of the Kauai District Health Office at 241-3323.

<u>Drinking Water</u>

1. The Draft PMRF Enhanced Capability DEIS (Draft PMRF Study) states that hazardous material and hazardous waste activities at Kamokala Magazines are included in the PMRF

management plans for these types of materials (Section 3.1.5.5.2). The Draft PMRF Study also states that the warheads, ordnance, and solid rocket motors used in training exercises at PMRF are stored in the Kamokala Magazines (Section 3.1.5.5.2).

The Kamokala Magazines are located near (approximately 1,500 feet) from the Mana Well Shaft. The Pacific Missile Range Facility obtains two thirds of its potable water from this well. The Mana Well shaft is a shallow shaft 105 feet deep.

Solid rocket motor propellents are composed primarily of a fuel element, an oxidizer, and a binder which holds the fuel and the oxidizer together in a solid form. The solid rocket motor proposed for use in both the intercepter and target missiles would consist primarily of ammonium perchlorate (AP) and a polybutadiene rubber binder (4.2.1.14.2.2).

COMMENTS:

The Draft PMRF Study does not address how the hazardous material and hazardous waste activities in the Kamokala Magazines are contained and controlled to keep hazardous material out of the ground water.

The Draft PMRF Study does not address how perchlorates from the solid rocket motor propellent stored in Kamokala Magazines will be contained and kept out of the ground water. Please note that the EPA has added perchlorates to the Contaminant Candidate List as of March 2, 1998.

The Draft PMRF Study should also address periodic water sampling from the Mana well shaft to establish baseline contaminant levels (perchlorate, etc.) and to confirm that the activities in the Kamokala Magazines are not affecting the drinking water quality.

2. Table 2.5.2 on page 2-107 of the Draft PMRF Study states that on Niihau the new launch activities would not cause an exceedance of drinking water quality standards or result in long-term changes in water chemistry.

Section 3.2.1.14.2.2 states that on Niihau water samples were collected from 57 wells and water holes. Chloride content ranged from 81 to 16,300 units. Only three wells yielded water sufficiently low in salt for drinking.

9-122

Comments:

The source(s) of drinking water for the people living on Niihau are not identified (rain catchment or wells or both), and the location of the potable water wells or other water sources in relation to the launch activities are not stated in the study. The Draft PMRF Study needs to address how the drinking water for the people on Niihau will not be affected as stated in Table 2.5.2. Presently the Department of Health does not regulate any public water system on Niihau. However, we do recommend that these individual systems monitor their water quality.

The monitoring of organic chemicals, volatile organic chemicals, and pesticides in public drinking water systems are required by State and Federal drinking water regulations. The Department of Health recommends that the Navy establish the baseline levels for chemicals in drinking water on Niihau and then conduct periodic checks to confirm that the launch activities have not adversely affected the drinking water quality.

If you have any questions on these comments, please contact Mr. Donald Yasutake of the Safe Drinking Water Branch at 586-4258.

Noise

Noise from missile launch activities may result in noise disturbances for the surrounding residences. Mitigative measures toward minimizing the these impacts must be implemented.

Should there be any questions on these comments, please contact Mr. Jerry Haruno, Environmental Health Program Manager, Noise, Radiation and Indoor Air Quality Branch at 586-4701.

Sincerely,

BRUCE S. ANDERSON, Ph.D.
Deputy Director for
Environmental Health

c: CAB
SDWB
NR&IAQB
KDHO

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1132
23 OCT 1998

Dr. Bruce Anderson
Department of Health
State of Hawaii
PO Box 3378
Honolulu, Hawaii 96801

Dear Dr. Anderson:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Air Quality

1. The term "health based standards" are associated with the National Ambient Air Quality Standards (NAAQS) which were defined in the Glossary in Section 6.0 of the Draft EIS. "Health-based guidance levels", such as the Short-term Public Exposure Guidance Level (SPEGL) were also defined in the Glossary. These guidance levels are recommendations of the American Conference of Governmental Industrial Hygienists (ACGIH), the National Research Council, and the State of Hawaii Department of Health. Throughout the EIS the phrase "health-based guidance" has been revised to "health-based guidance levels".
2. Section 3.1.1.1.2.2 of the EIS has been revised as you suggested.
3. Section 3.1.1.1.2.3 of the EIS has been revised as you suggested.
4. Section 3.1.1.1.2.3 of the EIS has been revised as you suggested.
5. Section 3.2.1.1.2 of the EIS has been revised as you suggested.
6. Section 4.1.1.1.1 of the EIS has been revised as you suggested.
7. Impacts to biological and cultural resources inside the ground hazard area were analyzed in Sections 4.1.1.3 and 4.1.1.4 of the Draft EIS. Because the ground hazard area is a restricted area, this restriction prevents a public health hazard.
8. The values under the "Guidance Level" column of table 4.1.1.1-2 represents both health-based standards and guidance levels. Tables J-1 and J-2 in the Draft EIS list the sources for these values. Table J-2 has been revised to correct the guidance level for aluminum oxide from 10 mg/m^3 to 5 mg/m^3.
9. Table 4.1.1.1-2 in the Draft EIS shows that the maximum concentration of 0.070 mg/m^3 for Al_2O_3; 0.094 mg/m^3 for CO; and 0.087 mg/m^3 for HCl occurred at distances of 1.935-1.936 kilometers away. For the Hawk launch or mishap scenarios, the maximum concentrations predicted do not exceed the appropriate

heath-based standards or guidance levels. Because there is no actual human exposure to the contaminants, there is no health risk.

10. Because the computer model predicted maximum concentrations of contaminants to be lower than their respective health-based guidance levels, there are no impacts either inside or outside the ground hazard area. There is no human exposure to the contaminants and there is no health risk.
11. As stated in Response 7 above, impacts to the environment were analyzed in the Draft EIS.
12. The term "adverse impact" was defined on page 4-1 of the Draft EIS. Section 4.1.1.1.1 of the EIS has been revised as you suggested.
13. See Response 12 above.
14. Table 4.1.1.1-4 has been added as you suggested.
15. The referenced sentenced has been revised to indicate "toxic *levels of* fumes from the burning propellant could pose a health threat...". As stated in Response 7 above, impacts to the environment were analyzed in the Draft EIS.
16. Section 4.1.4.1.2 of the EIS has been revised as you suggested.
17. Section 4.2.1.1.2 of the EIS has been revised as you suggested.
18. Figures 2.3.4-6 and 4.2.1.7-1 of the Draft EIS indicate the location of the salt ponds (lakes). The salt ponds are within the 20,000-foot ground hazard area, however, because of the flight corridor azimuth limits, the salt ponds would not be impacted by launch debris in the event of a flight termination, as described on page 4-142 of the Draft EIS.

Drinking Water

1. As stated in Section 3.1.5.5.2 of the Draft EIS, there are no hazardous materials used or hazardous wastes generated from activities at the Kamokala Magazines. The solid rocket motors do not release contaminants while in storage and therefore, water quality would not be affected.
2. As stated in Section 3.2.1.12.2 of the Draft EIS, each household on Niihau is supported by individual catchment systems. As stated in Section 4.2.1.14 of the Draft EIS potable groundwater within the area of the proposed action is very limited. Measurable groundwater contamination as a result of launch activities is highly unlikely because of the limited quantities of missile exhaust emissions that would reach the ground, and the standard spill prevention, containment, and transportation safety plans that would be implemented.

Noise

1. Section 4.1.1.9.2 of the Draft EIS stated that it is not expected that any noise complaints would be generated by launch activities at PMRF because of the infrequent nature and short duration of the launch itself. There are no private residences surrounding PMRF. The nearest residences, other than base housing, are in Kekaha. Land launch sites at Niihau are also removed from inhabited areas.

We thank you for taking the time to review the document and for providing comments. We look forward to continuing to work with you and to being a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0316

9-124

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

LAWRENCE MIIKE
DIRECTOR OF HEALTH

STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801

In reply, please refer to

June 18, 1998 97-111B/epo

Ms. Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

Dear Ms. Mossman:

Subject: Draft Environmental Impact Statement (DEIS)
Pacific Missile Range Facility (PMRF) Enhanced Capability
Kauai, Niihau, Tern Island, Johnston Atoll, and Areas Northwest of Kauai Within and Outside U. S. Territorial Waters

The Department of Health (DOH) has already sent you comments (dated June 2, 1998) regarding the subject DEIS. However, the DOH recently received copies of comments sent to you by Professor Michael Jones of the University of Hawaii Physics and Astronomy Department (dated May 22, 1998, May 15, 1998, and May 3, 1998) and by Mr. John Harrison of the Environmental Center at the University of Hawaii (dated May 26, 1998). We would like to comment on those issues, raised in the above letters, that are of interest to the DOH.

In the above-mentioned letters signed by Dr. Jones and Dr. Harrison, there is a basic confusion between emission of a contaminant and actual human exposure to that contaminant. Without exposure, there would be no health risk.

A Vandal rocket may emit 45 pounds of lead, but the lead is dispersed over a long path and mostly over the ocean, where no child (the most sensitive person) could inhale or be exposed to it. There should be no health risk in this case. Furthermore, if the lead falls into the ocean, there should be no significant additional rise in the lead levels in edible fish. Underwater volcanic vents in the Hawaiian Islands constantly introduce much more mercury and lead into the ocean than the rockets would, and lead levels in local ocean fish are not significant to public health, according to measurements done for the DOH's Food and Drug Branch.

Similarly, Dr. Harrison's letter mentions that the level of hydrogen chloride gas found near the launch site during a previous launch was over 100 parts per million, which he correctly identifies as the level that would be "immediately dangerous to life and health" in an occupational situation. Presumably, this was measured by a remote instrument just after a launch, and every human being would be a far distance away and sheltered from the rocket's exhaust heat and noise. Therefore, no human being would inhale or be exposed to that level of hydrogen chloride before the cloud of gas disperses and is diluted by uncontaminated air.

Kilauea Volcano probably emits thousands of pounds of lead per year into the air over the land, and when the lava runs into the ocean, the heat generates a tremendous quantity of hydrogen chloride gas in a lava haze ("laze"). Dispersion by the winds and dilution by fresh air prevent human beings from excess exposure to these air pollutants.

There is also some confusion about soil pollution and public health, and the State and Federal guidelines are misquoted. Toxicologists at the U.S. Environmental Protection Agency have calculated the levels of lead in soil which would be hazardous to health. These levels are called "Preliminary Remediation Goals," and the DOH uses them when cleaning up hazardous waste sites according to the future use of the land. If the future use of the land is to be residences, then the guideline is 400 parts per million, in order to protect children who would be directly exposed by inhaling or swallowing minute quantities while playing in the contaminated soil daily for many years. If the future use is to be commercial or industrial, then the guideline is 1000 parts per million, based on brief and occasional exposure of adults or children.

If the lead levels near the launch pad are 760-980 mg/kg (milligrams of lead per kilogram of soil, which is the same as parts per million), this land would be all right for commercial or industrial activities without further clean-up. This level of lead contamination is not presently a health hazard. At the present time, the exposure to children and to the general public is limited, because this is a restricted area. This restriction prevents a public health hazard.

If this land were ever returned to the State and residences were planned on the site of the launch pad, then the military would have to clean up the site, just as they have done in countless sites at Pearl Harbor, Schofield, and Hickam.

Dr. Jones asks about the number of launches planned and their cumulative impacts, especially regarding lead contamination. That information is immaterial, because the restrictive easement and limited access prevents public exposure at the present time. As for the future, the contamination and debris will not become important until later, if the land is returned to the State and there is future civilian use after the prescribed clean-up to nonhazardous levels.

Finally, Dr. Harrison's letter mentions a ground water contamination volume of 5,700 cubic meters. This requires further information before we can comment, such as what the contaminant is and whether the contaminated ground water is drinkable or brackish and in contact with sea water.

Sincerely,

BRUCE S. ANDERSON, Ph.D.
Deputy Director for
Environmental Health

c: CAB
SDWB
NR&IAQB
KDHO

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1133
23 OCT 1998

Dr. Bruce Anderson
Department of Health
State of Hawaii
PO Box 3378
Honolulu, Hawaii 96801

Dear Dr. Anderson:

We appreciate the clarification and corrections provided in your letter of June 18, 1998. We agree with your descriptions of pollutant emissions and human exposure and soil contamination and cleanup goals. We have incorporated this information in the Pacific Missile Range Facility Enhanced Capability Final Environmental Impact Statement (EIS) and in responses to comments on the Draft EIS.

The report mentioned by Dr. Harrison references "contaminated water", not contaminated groundwater. Analysis shows that most of the water was not contaminated above background levels. Some samples did have organic and lead contamination that was above background levels but not above EPA action levels.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0317

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LOCAL

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COUNTY COUNCIL

MARY THRONAS, CHAIR
RANDAL VALENCIANO, VICE-CHAIR
BILL "KAIPO" ASING
BRYAN BAPTISTE
RONALD KOUCHI
JAMES TEHADA
JAMES TOKIOKA



OFFICE OF THE COUNTY CLERK

C. BUNJI SHIMOMURA, County Clerk
ERNESTO G. PASION, Deputy County Clerk

4396 RICE ST., RM. 206
LIHUE, KAUAI, HI 96766-1399

Ph.(808)241-6371
Fax(808)241-6349

April 25, 1998

U.S. Department of the Navy
c/o Captain J. A. Bowlin
Commanding Officer, U.S. Navy
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Hawaii 96752-0128

Dear U.S. Department of the Navy:

RE: Pacific Missile Range Facility (PMRF), Kauai, Hawaii

Thank you for the opportunity to submit this testimony in support of PMRF's efforts to enhance its facilities for missile defense testing. Attached is Resolution No. 27-98, Draft 1, entitled "Resolution Supporting Enhancement of Facilities For the Pacific Missile Range Facility (PMRF) at Mana, Kauai," which was adopted by the Kauai County Council at its meeting on April 22, 1998. I would like to point out that the one dissenting vote was not based on the merits of the Resolution, but was based on a purely procedural question relating to the timing of the Resolution.

My reasons for supporting PMRF's improvements are spelled out in the Resolution. Enhancements will improve our missile defense systems and will boost Kauai's economy at a crucial time. If these enhancements and testing undertaken will help save one life from missile attack, then the project will be worthwhile.

Again, thank you for the opportunity to present this testimony.

Sincerely,

Ron Kouchi

att.

AN EQUAL OPPORTUNITY EMPLOYER

COUNTY COUNCIL

MARY THRONAS, CHAIR
RANDAL VALENCIANO, VICE-CHAIR
BILL "KAIPO" ASING
BRYAN BAPTISTE
RONALD KOUCHI
JAMES TEHADA
JAMES TOKIOKA



OFFICE OF THE COUNTY CLERK

C. BUNJI SHIMOMURA, County Clerk
ERNESTO G. PASION, Deputy County Clerk

4396 RICE ST., RM. 206
LIHUE, KAUAI, HI 96766-1399

Ph.(808)241-6371
Fax(808)241-6349

TESTIMONY OF COUNCILMEMBER RONALD KOUCHI ON
THE PACIFIC MISSILE RANGE FACILITY ENHANCED CAPABILITY DRAFT EIS
Waimea Educational Center
April 25, 1998

Thank you for the opportunity to present this testimony and resolution supporting the enhancement of facilities for the Pacific Missile Range Facility (PMRF) on behalf of the Kaua'i County Council.

Having been born and raised on the West Side of Kaua'i, I know full well the continuing economic difficulties being faced today on this side of the island. As such, PMRF represents the Kaua'i counterpart in the field of State-wide high technology development to such highly successful efforts as the Maui Research and Technology Development Center, the Maui High Performance Computing Center and the Mauna Kea Science Reserve's astronomical observatories on the Big Island. This economic development potential is based on PMRF's technical, operational, and geographical advantages to conduct testing critical to the national defense of the United States, as well as its past record of success in this area of work.

These same advantages provide Kaua'i with a base from which to make the difficult transition from an economy rooted in plantation agriculture and the visitor industry to one which can take advantage of the kinds of technological change and innovation sweeping the national and global economies. Even in these trying economic times, PMRF remains one of the largest employers on the island, with approximately 800 civilian employees and a payroll of approximately $46 million. The proposed upgrades and enhancements of an estimated $33 million will serve to insure the continued viability of PMRF for the next 15 to 20 years.

PMRF has also shown a sincere desire to provide information and listen to community concerns, as well as to open their doors in efforts to promote continued citizen understanding of their work. In this spirit, the Council requests that PMRF consult and work cooperatively with the U.S. Fish and Wildlife Service in recognition of the value of the Northwestern Hawaiian Islands Wildlife Refuge.

More importantly, through the years, PMRF and the U.S. Navy have demonstrated what it means to be a "good neighbor," as shown by their assistance with the island's disaster recovery efforts after Hurricane 'Iniki, various search and rescue missions off Kaua'i waters, and becoming a valued community member by its continuing support of many charitable and service activities both on the West Side and island-wide.

I would like to also point out that the one dissenting vote on the Council's resolution of support was not based on the merits of the resolution, but was based on a purely procedural question relating to the timing of the resolution.

AN EQUAL OPPORTUNITY EMPLOYER

9-130

COUNTY COUNCIL
COUNTY OF KAUAI

Resolution

NO. 27-98,
Draft 1

RESOLUTION SUPPORTING ENHANCEMENT OF FACILITIES FOR THE PACIFIC MISSILE RANGE FACILITY (PMRF) AT MANA, KAUAI

WHEREAS, because of the lessons learned from the Gulf War in 1991, the U.S. Congress has mandated the testing and evaluation of capable, cost-effective, defensive systems to counter short and medium range ballistic missiles which have the potential of delivering weapons of mass destruction, and

WHEREAS, because of PMRF's unique technical, operational, and geographical advantages to conduct this type of defensive testing, the U. S. Senate Appropriations Committee Subcommittee on Defense stated:

> "...Based on these unique assets and PMRF's demonstrated record of success, the Committee directs that the Pacific Missile Range Facility (PMRF) shall be designated the primary test range for the completion of Navy lower tier and upper tier missile flight tests."

WHEREAS, to support Theater Ballistic Missile Defense testing, PMRF needs to (1) upgrade existing capabilities, including instrumentation, communications equipment, radars, and sensors, (2) construct and operate additional missile launch sites, sensor and instrumentation facilities, and ordnance storage buildings, and (3) modify and extend leases on state lands; and

WHEREAS, military use of this area began in 1940 with a grass airstrip, and today PMRF presently employs approximately 800 civilian workers, with a total annual payroll of approximately $46 million, and the estimated $33 million in proposed upgrades and enhancements will insure the viability of PMRF as a national defense testing site for the next 15 to 20 years; and

WHEREAS, PMRF has been a good neighbor on Kauai for many years, and its employees are an integral part of our community, and participate in numerous charitable activities, search and rescue missions, and disaster recovery efforts; now, therefore

BE IT RESOLVED BY THE COUNCIL OF THE COUNTY OF KAUAI, that it supports enhancements and upgrades for PMRF to improve missile defense testing.

BE IT FURTHER RESOLVED, that PMRF consult and work cooperatively with the U.S. Fish and Wildlife Service in recognition of the value of the Northwestern Hawaiian Islands Wildlife Refuge.

BE IT FURTHER RESOLVED that copies of this Resolution be transmitted to Captain J. A. Bowlin, U.S. Navy Commanding Officer, PMRF (for distribution as appropriate); Governor Cayetano; Hawaii's Congressional Delegation; and the Kauai Economic Development Board.

Introduced by: /s/ RON KOUCHI

parfdt.rk:ki

	Aye	Nay	Exc
Asing		X	
Bynum	X		
Kouchi	X		
Tokuda			X
Yamane	X		
Yukimura	X		
Valmonte	X		
Total	5	1	1

CERTIFICATE OF ADOPTION

We hereby certify that Resolution No. 27-98, Draft 1, was adopted by the Council of the County of Kauai, Lihue, Kauai, Hawaii, on April 22, 1998.

Deputy County Clerk

Chairperson & Presiding Officer

Dated 4/23/98

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0927
23 OCT 1998

Mr. Ronald Kouchi
Kauai County Council
Councilmember
4396 Rice Street
Room 206
Lihue, Kauai, HI 96766-1399

Dear Mr. Kouchi:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

We appreciate your expression of support, on behalf of the Kauai County Council, for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing and training. We agree that a strong partnership with our neighbors in both technical and civic arenas is beneficial to both Kauai and the Navy.

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

We look forward to continuing our positive relationship with the business, educational, and civic organizations on Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0169

BUILDING DEPARTMENT
CITY AND COUNTY OF HONOLULU
HONOLULU MUNICIPAL BUILDING
650 SOUTH KING STREET
HONOLULU, HAWAII 96813

JEREMY HARRIS
MAYOR

RANDALL K. FUJIKI
DIRECTOR AND BUILDING SUPERINTENDENT

ISIDRO M. BAQUILAR
DEPUTY DIRECTOR AND BUILDING SUPERINTENDENT

PB 98-240

April 16, 1998

Ms. Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Hawaii 96752

Dear Ms. Mossman:

Subject: Pacific Missile Range Facility Enhanced Capability
Draft Environmental Impact Statement (EIS)

This is in response to your request of March 26, 1998 to review and comment on the subject EIS.

We have no comments to offer but appreciate the opportunity to review the document.

Should there be any questions, please contact Douglas Collinson at 527-6375.

Very truly yours,

RANDALL K. FUJIKI
Director and Building Superintendent

9-132

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0837
23 OCT 1998

Mr. Randall K. Fujiki
Director and Building Superintendent
City and Council of Honolulu
Building Department
650 South King Street
Honolulu, HI 96813

Dear Mr. Fujiki:

Thank you for your response to our request for comments on the Pacific Missile Range Facility Enhanced Capability Draft Environmental Impact Statement.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0203

P-W-0204

MARYANNE W. KUSAKA
MAYOR

GERALD W. DELA CRUZ
DIRECTOR

COUNTY OF KAUAI
OFFICE OF ECONOMIC DEVELOPMENT

4280-B RICE STREET
LIHUE, KAUAI, HAWAII 96766
TELEPHONE (808) 241-6390
FAX (808) 241-6399

April 17, 1998

Ms. Vida Mossman
PMRF Public Affairs Officer
P. O. Box 128
Kekaha, HI 96752-0128

Dear Ms. Mossman:

The Pacific Missile Range Facility (PMRF) located on Kauai's south western shore is a respected partner in our economy. It can not be emphasized enough that the size and quality of PMRF's payroll contributes extremely important benefits to a predominantly rural west Kauai; economic stability, counterbalance to the agricultural payrolls and important participation in and support of local community activities. The range and its contractors are important catalysts for further introduction of advanced technology.

The proposal to upgrade the existing capabilities at PMRF to support Navy TBMD testing will allow PMRF to be able to perform its mission well into the next century. The proposal plans to infuse significant investment capital on Kauai is projected to create much needed employment opportunities for our island. As we are confident that the final plans will provide mitigative measures to address potential environmental concerns, we are supportive of the Navy's proposed initiatives.

Thank you for the opportunity to provide comment.

Aloha,

Gerald Dela Cruz
Director

cc: Mayor Maryanne W. Kusaka

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0838
23 OCT 1998

Mr. Gerald Dela Cruz
Director
Office of Economic Development
County of Kauai
4280-B Rice Street
Lihue, Kauai, HI 96766

Dear Mr. Cruz:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0204

P-W-0216

9-134

DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
CITY AND COUNTY OF HONOLULU
650 SOUTH KING STREET, 5TH FLOOR • HONOLULU, HAWAII 96813
PHONE: (808) 523-4427 • FAX (808) 527-5498

JEREMY HARRIS
MAYOR

ROBERT AGRES JR
DIRECTOR

DARWIN J. HAMAMOTO
DEPUTY DIRECTOR

April 15, 1998

Ms. Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

Dear Ms. Mossman:

Subject: Pacific Missile Range Facility
Enhanced Capability Draft Environmental Impact Statement

Thank you for your letter of March 26, 1998 inviting our comments on the subject project.

The Department of Housing and Community Development has no comments regarding this subject project.

Sincerely,

ROBERT AGRES, JR.
Director

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0839
23 OCT 1998

Mr. Robert Agres, Jr.
Department of Housing and Community Development
City and County of Honolulu
650 South King Street
5th Floor
Honolulu, HI 96813

Dear Mr. Agres:

Thank you for your response to our request for comments on the Pacific Missile Range Facility Enhanced Capability Draft Environmental Impact Statement.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0216

Maryanne W. Kusaka
Mayor

Wallace G. Rezentes, Sr.
Administrative Assistant

OFFICE OF THE MAYOR

April 23, 1998

Ms. Vida Mossman
Pacific Missle Range Facility
P.O. Box 128
Kekaha, Kauai, Hi 96752-0128

Subject: Pacific Missle Range Facility (PMRF)
Enhanced Capability Draft Environmental Impact Statement

Dear Ms. Mossman:

The County of Kaua'i recognizes that PMRF has grown over the last half of this century to become a valuable asset to Kaua'i. It is one of the largest employers on Kaua'i, presently providing over 800 jobs for civilian workers. It's employees, both federal civil service and contractors, are important members of the community.

The Navy and it's contractors have also been good neighbors. Their response to the island's needs in the wake of natural disasters, and their participation in community activities is much appreciated.

PMRF is also a valuable asset to the Navy with air, surface, and subsurface ranges, along with technical and support infrastructure.

Enhancements are being proposed to accomodate development, testing, evaluation and training for Department of Defense Theater Missle Defense (TMD) and Navy Theater Ballistic Missle Defense (TMBD) programs. Part of the enhancements involve modifying leases with the State of Hawai'i. The Draft EIS is submitted to identify and address potential impacts of the proposed enhancements.

Our concerns already appear to be addressed in the Draft EIS; protection of Archaeological sites, protection of ecosystems and preservation of the culture of the Hawaiian people on Ni'ihau. We trust that the mitigation measures proposed will be successful.

Mo'ikeha Building • 4444 Rice Street, Suite 235, Lihu'e, Kaua'i, Hawai'i 96766
Phone (808) 241-6300 • Fax (808) 241-6877

The County of Kaua'i supports the enhancements proposed in the Draft EIS. These enhancements will allow PMRF to improve upon it's unique assets in order to support it's defense mission and to solidify it's future in the community.

Mahalo for the opportunity to comment.

Aloha pumehana,

Maryanne W. Kusaka

MARYANNE W. KUSAKA
Mayor

9-136

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0840
23 OCT 1998

Ms. Maryanne W. Kusaka
Mayor
County of Kauai
4444 Rice Street
Suite 235
Moikeha Building
Lihue, Kauai, HI 96766

Dear Mayor Kusaka:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0219

P-W-0234

COUNTY COUNCIL

MARY THRONAS, CHAIR
RANDAL VALENCIANO, VICE-CHAIR
BILL "KAIPO" ASING
BRYAN BAPTISTE
RONALD KOUCHI
JAMES TEHADA
JAMES TOKIOKA

OFFICE OF THE COUNTY CLERK

C. BUNJI SHIMOMURA, County Clerk
ERNESTO G. PASION, Deputy County Clerk

4396 RICE ST., RM. 206
LIHUE, KAUAI, HI 96766-1399

Ph.(808)241-6371
Fax(808)241-6349

April 24, 1998

Captain J. A. Bowlin
U.S. Navy Commanding Officer
Pacific Missile Range Facility at Mana
P. O. Box 128
Kekaha, Hawaii 96752

Dear Captain Bowlin:

Enclosed for your information and files is Kauai County Council's Resolution No. 27-98, Draft 1, RESOLUTION SUPPORTING ENHANCEMENT OF FACILITIES FOR THE PACIFIC MISSILE RANGE FACILITY (PMRF) AT MANA, KAUAI, which was adopted on April 22, 1998.

If you have any questions, please call the Council Services Division at 241-6371.

Sincerely,

C. BUNJI SHIMOMURA
County Clerk

/ao
Enc.

7-/ao

AN EQUAL OPPORTUNITY EMPLOYER

COUNTY COUNCIL
COUNTY OF KAUAI

Resolution

NO. 27-98, Draft 1

RESOLUTION SUPPORTING ENHANCEMENT OF FACILITIES FOR THE PACIFIC MISSILE RANGE FACILITY (PMRF) AT MANA, KAUAI

WHEREAS, because of the lessons learned from the Gulf War in 1991, the U.S. Congress has mandated the testing and evaluation of capable, cost-effective, defensive systems to counter short and medium range ballistic missiles which have the potential of delivering weapons of mass destruction, and

WHEREAS, because of PMRF's unique technical, operational, and geographical advantages to conduct this type of defensive testing, the U. S. Senate Appropriations Committee Subcommittee on Defense stated:

> "...Based on these unique assets and PMRF's demonstrated record of success, the Committee directs that the Pacific Missile Range Facility (PMRF) shall be designated the primary test range for the completion of Navy lower tier and upper tier missile flight tests."

WHEREAS, to support Theater Ballistic Missile Defense testing, PMRF needs to (1) upgrade existing capabilities, including instrumentation, communications equipment, radars, and sensors, (2) construct and operate additional missile launch sites, sensor and instrumentation facilities, and ordnance storage buildings, and (3) modify and extend leases on state lands; and

WHEREAS, military use of this area began in 1940 with a grass airstrip, and today PMRF presently employs approximately 800 civilian workers, with a total annual payroll of approximately $46 million, and the estimated $33 million in proposed upgrades and enhancements will insure the viability of PMRF as a national defense testing site for the next 15 to 20 years; and

WHEREAS, PMRF has been a good neighbor on Kauai for many years, and its employees are an integral part of our community, and participate in numerous charitable activities, search and rescue missions, and disaster recovery efforts; now, therefore

BE IT RESOLVED BY THE COUNCIL OF THE COUNTY OF KAUAI, that it supports enhancements and upgrades for PMRF to improve missile defense testing.

BE IT FURTHER RESOLVED, that PMRF consult and work cooperatively with the U.S. Fish and Wildlife Service in recognition of the value of the Northwestern Hawaiian Islands Wildlife Refuge.

BE IT FURTHER RESOLVED that copies of this Resolution be transmitted to Captain J. A. Bowlin, U.S. Navy Commanding Officer, PMRF (for distribution as appropriate); Governor Cayetano; Hawaii's Congressional Delegation; and the Kauai Economic Development Board.

Introduced by: /s/ RON KOUCHI

parfdt.rk:bt

	Aye	Nay	Exc.
Anuing		X	
Bagoyo	X		
Kaneshi	X		
Tokuda			X
Thronas	X		
Yukimura	X		
Valmonte	X		
Total	5	1	1

CERTIFICATE OF ADOPTION

We hereby certify that Resolution No. 27-98, Draft 1, was adopted by the Council of the County of Kauai, Lihue, Kauai, Hawaii, on April 22, 1998.

Deputy County Clerk

Chairperson & Presiding Officer

Dated 4/23/98

9-137

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0841
23 OCT 1998

Mr. C. Bunji Shimomura
County Clerk
Cuonty of Kauai
4396 Rice Street
Room 206
Lihue, Kauai, HI 96766-1399

Dear Mr. Shimomura:

Thank you for forwarding the Kauai County Council's resolution in support of PMRF. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0234

9-138

PMRF ADMIN
98 APR 23 AM 11:42

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02 K
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PAO —

DEPARTMENT OF WATER

County of Kauai

"Water has no Substitute – Conserve It!"

April 17, 1998

ey 030, 30

P-W-0235 5

Pacific Missile Range Facility
P.O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

Gentlemen:

Subject: Draft Environmental Impact Statement - "Pacific Missile Range Facility (PMRF) Enhanced Capabilities",

Thank you for allowing the Department of Water, County of Kauai, to comment on the subject Draft Environmental Impact Statement.

We have no objections to the proposed action provided that any actual ~~development will~~ be dependent on the adequacy of the County's source, storage and transmission facilities existing at that time.

Currently, the County's Kekaha Water System, in part, services the PMRF/Main Base (KTF) at Kekaha, Kauai, and the County's Hanapepe Water System fully services the Port Allen facility at Eleele, Kauai. The other facilities at the Restrictive Easement (Ground Hazard Area), Makaha Ridge, Kokee, Kamokala Magazines sites on Kauai are not serviced by a County Water System.

The proposed additional potable water demand at the PMRF/Main Base facility is within the limits of the current County Water System Agreement with PMRF of 82,000 gallons per day. Since the proposed action activities at the Port Allen site would not result in additional demand for utilities, no cumulative impact on the County Eleele Water System is expected.

If there are any questions, please call Gregg Fujikawa at 245-5416.

Sincerely,

Ernest Y. W. Lau
Manager and Chief Engineer

GF

c: Wayne Hinazumi, WR/P, DOW
Ed Tschupp, DOW

— 4398 Pua Loke Street, Lihue, Kauai, Hawaii or P. O. Box 1706, Lihue, HI 96766-5706 —

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0842
23 OCT 1998

Mr. Ernest Y. W. Lau
Department of Water
County of Kauai
4398 Pua Loke Street
Lihue, Kauai, HI 96766-5706

Dear Mr. Lau:

Thank you for your response.

We will continue to work with you to ensure the wise use of these valuable water resources.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0235

P-W-0237

MARYANNE W. KUSAKA
MAYOR

DEE M. CROWELL
PLANNING DIRECTOR
IAN K. COSTA
DEPUTY PLANNING DIRECTOR

TELEPHONE (808) 241-6677
FAX (808) 241-6699

PLANNING DEPARTMENT

May 5, 1998

Ms. Vida Mossman
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Kauai, HI 96752-0128

SUBJECT: Draft Environmental Impact Statement
Pacific Missile Range Facility Enhanced Capability

Thank you for allowing us this opportunity to comment on the proposed project.

Our comments concerning the project are as follows:

1. We have been advised by our County Attorneys Office that Federal projects are exempt from County land use permits when situated on lands owned or leased by the Federal government. However, it should be noted that the island of Niihau falls under the jurisdiction of the County of Kauai.

2. Although exempt from County land use permits, we are still concerned about the project's impacts to the communities and environment. Therefore we recommend that input from the communities along with those from experts in the areas of flora, fauna, recreation, historic/cultural resources, noise, air, etc. be evaluated and considered to ensure that minimal adverse impacts occur.

3. The extension of the lease for the restrictive easement to the year 2030 to provide buffer zones adjacent to PMRF is a very important component in the overall project scheme. Without this, serious questions arise about safety to adjacent areas when launching operations occur. However, we are also concerned about the frequency and length of time which the easement area will be used and its effect on the current sugar operations which are a vital part of Kauai's economy. Has input from the Kekaha Sugar Company been obtained? If not, we recommend that

Kapule Building • 4444 Rice Street, Suite 473 • Lihu'e, Kaua'i, Hawai'i 96766
AN EQUAL OPPORTUNITY EMPLOYER

9-139

they be consulted in the process.

4. We concur with the State Department of Business, Economic Development and Tourism (DBEDT) regarding compliance with the CZM consistency determination. If such documentation is submitted to the DBEDT, we would like to be provided with copies also.

5. The Polihale State Park area as well as the beach areas adjacent to PMRF are frequented by many users both on-shore and off-shore. Will there be a warning system to ensure that the affected areas are totally evacuated during operations? What type(s) of warning systems are being considered?

6. There is an application in our office for an aquaculture operation which will border the PMRF facility. We recommend that the owners of the aquaculture business be contacted if missile launchings will require temporary closure of their operations. Also, what impacts, if any, will there be to the aquaculture operations?

Should you have any questions or concerns regarding this letter, please feel free to call me or Keith Nitta of my staff at 241-6677.

DEE M. CROWELL
Planning Director

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

9-140

IN REPLY REFER TO:
5090
Ser 00/ 0968
23 OCT 1998

Mr. Dee M. Crowell
Director
Planning Department
County of Kauai
Kapule Building
4444 Rice Street
Suite 473
Lihue, Kauai, HI 96766

Dear Mr. Crowell:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

1. We acknowledge that Niihau is within the County of Kauai and do agree with the county attorney's conclusion that county land use permits are not applicable to Federal activities.

2. Our analysis approach included consultation with state and local agencies responsible for and knowledgeable of the natural or historic/cultural resources being examined.

3. Safety is always a prime concern and, in fact, is the reason for establishing a restrictive easement to provide a buffer zone around missile launches. Consultation with the State of Hawaii, Amfac Sugar-Kauai, as well as Controlled Environment Aquaculture Technology, Inc. is under way to ensure minimal effects of closure to these business activities.

4. Consistent with Federal requirements, consultation with the State Department of Business, Economic Development and Tourism (DBEDT) has been under way and initiation of the consistency determination process occurred with transmittal of the Draft EIS and will conclude following issuance of the EIS. We will ask DBEDT to confer with you as part of their consistency review.

5. Clearing procedures are described in Section 4.1.2.6. Prior to missile launches requiring the Navy to exercise closure of the Ground Hazard Area (GHA), notices to mariners and notices to airmen are issued identifying areas and the times where hazardous activities will be conducted. Large boats then survey the area prior to launches occurring. The process for determining the GHA is clear involves personnel verbally notifying people who are inside the GHA that they need to leave by a preset time (normally 20 minutes prior to a scheduled launch). These notifications begin approximately 3 hours prior to the scheduled launch. Helicopter surveys are conducted to determine the area clear and 20 minutes prior to the launch access roads leading into the GHA are blocked. Following the launch, access is restored. To date, PMRF has had a good working relationship with Amfac Sugar. We intend to maintain this relationship through close coordination during periods when sugar operations could be impacted. While informal discussions with Amfac personnel occur periodically, we will contact Amfac Sugar-Kauai to discuss any concerns they may have.

6. See attached CEATECH letter.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain and maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0237

ATTACHMENT

CEATECH USA

Controlled Environment Aquaculture Technology, Inc.
7 Waterfront Plaza, Suite 400
500 Ala Moana Blvd. Honolulu, HI 96813
Tel: (808) 521-1801 / Fax: (808) 537-1307
ceatech@aloha.net

May 7, 1998

Vida Mossman
Public Affairs Officer
Pacific Missile Range Facility
P.O. Box 128
Kekaha, HI 96752-0128

Dear Ms. Mossman:

We have reviewed the Pacific Missile Range Facility Enhanced Capability Draft Environmental Impact Statement of 3 April 1998.

It is our opinion that the operations at the Pacific Missile Range Facility will have no impact on the operations of CEATECH Plantations or any other of our facilities.

Sincerely,

Ernest K. Dias
President

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COMMUNITY ORGANIZATIONS

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Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

Veteran's of Foreign Wars

Submitted by:
Rich Irwin

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

April 1998

Printed on recycled paper

9-145



Testimony by VFW Post 3855 in favor of the PMRF Enhanced Capability and the Theater Missile Defense Program
April 25, 1998

I am here today offering testimony on behalf of the 125 combat veterans that are members of Veterans of Foreign Wars, Cordoza-DeFries Post 3855, Kapaa, Hawaii.

We speak from personal experience on the battlefield. The experiences of combat have led us to believe that a strong defense is the best way to prevent war. We strongly support the proposed action in the EIS for the PMRF Enhanced Capability and the Theater Missile Defense Program and believe it to be in the Nation's best interest to proceed as soon as possible.

Furthermore, we feel that the proposed action will have minimum impact to the environment and wildlife because of careful oversight by PMRF. Some here today will undoubtedly address these issues with hype and distortion but the facts are clear and speak for themselves: PMRF has a proven track record of launching missiles for over 30 years with absolute safety to personnel, the community, and the environment!

Some may remember the hysteria associated with the STARS program. The subsequent four successful STARS launches and environmental monitoring showed the facts to be as stated in the Record of Decision: MINIMUAL IMPACT! The island was NOT covered with toxic gases or showered with burning debris and rocket fuel, in fact, most residents were not even aware of the launches!

The facts are clear that PMRF and the dedicated folks who work there are better protectors of the environment than most. Just take a walk down the pristine beaches and look for yourself: the land and wildlife are well cared for, endangered species thrive under the Navy's protection.

Some may say the Cold War is over and missile defense is not needed. Just ask yourself about the 20 countries that possess or are developing nuclear, biological and chemical weapons and ballistic missile delivery systems. A defense is needed and it is needed now!

The real benefit of the Theater Missile Defense Program at PMRF is to better protect our Armed Forces sent in harms way: your neighbors, nieces and nephews, brothers and sisters, sons and daughters. Would you send them into battle ill prepared without the proper equipment? Would you send them to fight without the best possible protection against attack from ballistic missiles? I think not! The fact of the matter is that we cannot adequately protect them today! We do not have an effective defense against short-range ballistic missiles.

The Theater Missile Defense program at PMRF will result in systems that will protect our troops! The ones who lay it on the line for each and every one of us, our sons and daughter, neighbors and friends.

I ask each and every one of you to support this program, and the dedicated men and women of the Pacific Missile Range Facility. Thank you.

Richard Irwin, Commander,
Veterans of Foreign Wars
Cordoza-Defries Post 3855, Kapaa, Hawaii

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0809
23 OCT 1998

Mr. Richard Irwin
Commander
Veterans of Foreign Wars
Cordoza-Defries Post 3855
Kapaa, HI 96746

Dear Mr. Irwin:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support, on behalf of Veterans of Foreign Wars Post 3855, for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. As one of the representatives of those who have put their lives on the line for the protection and defense of our country, we recognize your valuable perspective concerning the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

PMRF is proud of its safety record and stewardship of the environment in its more than 35 years of launching and testing missile systems. We have been able to conduct our programs over the years with very little environmental impact, and our goal is to continue to do so. We recognize that many who have opposed PMRF programs have claimed that there would be unacceptable environmental impacts as a result. We do not believe this has been borne out.

We look forward to continuing our positive relationship with the Veterans of Foreign Wars, as well as other business and civic organizations on Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0116

April 25, 1998

To Whom It May Concern:

The employees at Pacific Missile Range Facility and the International Brother of Electrical Workers Local 1260 strongly supports the proposed enhancements to the Pacific Missile Range Facility as described in the Draft Environment Impact Stated published on April 3, 1998.

Our review of the proposal to enhance the Pacific Missile Range Facility indicates that any impacts to the environment will be minimal, yet the benefits of the enhancements will be substantial. As the U.S. military continues to downsize and the Pentagon proposes to close 50 military bases in the next few years, the island of Kauai and the State of Hawaii are fortunate that there are plans to upgrade the Pacific Missile Range Facility and locate a high priority National defense project there.

The support that PMRF is being asked to provide to the Navy's Theater Missile Defense program is very similar to the type of work that the base has been carrying out for 35 years, launching and tracking missile targets safety in a controlled environment. The proposal includes enchanting PMRF's equipment and adding some additional launch capabilities and the project will require only small increases in the customary activities at PMRF, yet it will help to ensure the future viability of the base and the continued employment of the approximately 500 workers that the IBEW represents there. Many of the jobs are technical and require high skill levels and are therefore well paying. Few employers on Kauai can offer the high tech job opportunities that PMRF can. It enables more of Kauai's bright young people to stay on Kauai and work in a challenging environment or to go off island to college or join the military and return to their home with an opportunity to put what they have learned to good use.

Overall, PMRF employs more than 800 people on this island, and has an annual payroll of $45 million. It is one of the largest employers on the island and the largest provider of high tech jobs on Kauai. PMRF helps to maintain a strong middle class on Kauai, which is important for people want to earn a good living, buy homes, raise families and send their children to school. And we strongly support that.

PMRF also contributes to the community by supporting local schools with the Adopt-a-School program, the Toys for Tots program, helping to put on the Waimea Town Celebration and other volunteer efforts.

PMRF is the world's largest ocean range with instrumentation that can create and monitor realistic research, development, test evaluation and training environments for military and advanced technology systems that operate on the sea, under the sea, in the air, in space and on shore safely and without harming the environment.

9-148

PMRF is one of the greatest assets to the economy of Kauai, to the community and is an important asset in maintaining a strong National defense for our country. Thank you for this opportunity to comment.

Sincerely,

Michael Corregedore

Michael Corregedore
Unit 4 Chairman

P.O. Box 1085
Kalaheo 96941

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0810
23 OCT 1998

Mr. Michael Corregedore
Local 1260
International Brotherhood of Electrical Workers
PO Box 1085
Kalaheo, HI 96941

Dear Mr. Corregedore:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support, on behalf of the International Brotherhood of Electrical Workers Local 1260, for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We consider PMRF's highly skilled and competent employees to be our most valuable asset in performing our mission to provide vital testing and training activities for the Navy. Congress has recognized the benefits of the technology base and extensive off-shore range area existing at PMRF in identifying it as the primary area to test the Navy's theater ballistic missile defense systems.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0126

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

As Chief Financial Officer for the Kauai Veterans Memorial Hospital, I support the activities and beneficial economic presence of the Pacific Missile Range Facility -

MARK WELLS
P.O. Box 337
Waimea HI 96796

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

April 1998

Printed on recycled paper

9-150

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0811
23 OCT 1998

Mr. Mark Nellis
PO Box 337
Waimea, HI 96796

Dear Mr. Nellis:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0128

P-W-0138

KEDB
Kauai Economic Development Board

4334 Rice Street, Suite 204B, Lihue, Kauai, Hawaii 96766 Phone: (808) 245-6692 Fax: (808) 246-1089 email: kedb@aloha.net

April 20, 1998

The Garden Island
3137 Kuhio Highway
Lihue, Hawaii 96766

RE: The Enhanced Capability EIS

The Pacific Missile Range Facility's (PMRF's) contribution to Kauai transcends all elements of our community from agricultural operations to the visitor industry as well as the backbone of our island - small business. Statistically PMRF's economic impact include:

Wages and salaries	$46.3 million
Construction	$4.7 million
Contracts	$42.2 million
Purchasing	$7.2 million
Utilities	$4.0 million
Tourist Industry	$7.7 million

Kauai's economic condition is critical. The anticipated recovery from Hurricane Iniki is prolonged due to continued hotel closures and the downsizing of sugar operations. Business failures are increasing at record rates. Throughout this downturn the area that continues to shine is PMRF. NELHA and the astronomy community on the Big Island and the Super Computer on Maui are visibly important to each island's diversification. However, primarily because of the population base, PMRF's contribution is magnified. In addition, PMRF is a community leader. From their Toys for Tots campaign to their cooperative education programs with Kauai Community College they help foster the "Good Neighbor" policy as well as train Kauai's people for enhanced job opportunities.

PMRF is a national asset primarily for two reasons:
Lack of encroachment
Natural Littoral environment

The vision of Senator Daniel K. Inouye and his fellow members of Congress in declaring that PMRF is the **"Primary test range for the completion of Navy lower tier and upper tier missile flight tests"**, has brought infrastructure upgrades in the past five years totaling some $307 million. The testing and evaluation portion of PMRF's business is not only its shining star but also continues to increase with ultimate peaks in FY '98 – FY 2000.

Significantly, the testing and evaluation area represents the multitude of "spin-off" opportunities and the creation of sustainable economic development on Kauai. Already having a presence on Kauai or announcing their intentions to do so include companies such as ITT Federal Services, Baker Support Systems, MIT Lincoln Labs, SAIC, Oceanit Laboratories, Textron Systems Division, ThermaTrex Corporation and Solipsys Corporation. These companies are hiring our local neighbors and friends and helping train them using the facilities of KCC and the range, thus creating meaningful and well paying jobs for us all.

The enhancement of PMRF's testing and evaluation capabilities will bring about diversified economic benefits that are built on the basic precepts of sustainability as well as supply and demand equating to job growth.

PMRF has been a good neighbor, an exemplary corporate citizen. Let us all work together to bring about an enhancement of their capabilities which will result in sustainable economic development.

Sincerely,

John Isobe
President & COO, Kauai Economic Development Board

9-151

KEDB
Kauai Economic Development Board

4334 Rice Street, Suite 204B, Lihue, Kauai, Hawaii 96766 Phone: (808) 245-6692 Fax: (808) 246-1089 email: kedb@aloha.net

1998 MEMBERSHIP LIST

A & B Properties
Ameritech Cellular Services
AMFAC Sugar Kauai
Aston Kauai Beach Villas
Bank of Hawaii
Belles Graham Proudfoot & Wilson
Big Save, Inc.
First Hawaiian Bank
Gay & Robinson
Grove Farm Co., Inc.
GTE Hawaiian Tel
Hale Kauai, Ltd.
Haseko (Hawaii), Inc.
High Technology Solutions, Inc.
Honsador
Hyatt Regency Kauai
Insurance Agents Group, Inc.
International Telephone and Telegraph (ITT)
Jon P. Brubaker & Co.
Kauai Electric
Kauai Island Finance
Kauai Marketing Group, Inc.
Kauai Marriott
Kauai Nursery & Landscaping
Kawailoa Development
Kikiaola Land Co., Ltd.
Kilauea Agronomics
King Auto Center
Koa Trading Company
Outrigger Kauai Beach Hotel
Pacific Marine
Princeville Corporation
R. Electric
Textron Systems Kauai
ThermoTrex Corporation
Watumull & Sons
Wilcox Memorial Hospital
Young Brothers, Ltd.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

9-152

IN REPLY REFER TO:

5090
Ser 00/ 0812
23 OCT 1998

Mr. John Isobe
President and COO
Kauai Economic Development Board
4334 Rice Street
Suite 204B
Lihue, HI 96766

Dear Mr. Isobe:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support, on behalf of the Kauai Economic Development Board, for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We agree that a strong partnership with our neighbors in both technical and civic areas is beneficial to both Kauai and the larger Hawaiian community and the Navy. Congress has recognized the potential of the technical capabilities and extensive off-shore range area existing at PMRF in identifying it as the primary area to test the Navy's theater ballistic missile defense systems.

The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0138

P-W-0142

GREGG GARDINER
PO Box 3028
Lihue, HI 96766

April 25, 1998

Vida Mossman
Pacific Missile Range Facility
PO Box 128
Kekaha, HI 96752

Thank you for the opportunity to comment on the draft Environmental Impact Statement. My comments today are made on behalf of myself, and the Kauai chapter of the Marine Corps League.

For most of us, the Ballistic Missile Defense Era began a little over seven years ago on January 18, 1991, when a Patriot missile intercepted an incoming Iraqi Scud missile over *Saudi Arabia*. Not only was the intercept at night with a dazzling display of technical virtuosity, but it was recorded on video and replayed numerous times before hundreds of millions of viewers worldwide. We the public recognized for the first that there could be limited defenses against ballistic missiles.

Missile attacks are not new to the 80's and 90's - during WWII the Germans launched rockets to England and since then the world has been living in fear of missile attacks from the sky.

While the Gulf war was, in many respects, a great triumph, there are certainly many lessons that need to be learned from that war. One of these lessons is that future conflicts will, very likely, include attacks on American forces by ballistic missiles.

Sadly, it was also the Gulf war, when a primitive Iraqi Scud missile carrying a conventional warhead slammed into a barracks housing American troops in *Saudi Arabia*, 28 Americans were killed and 98 Americans were injured. It was the single largest loss of life during that war.

The Washington Post recounted the horror of how these brave young Americans, well behind the front lines, were cold-bloodedly attacked and murdered without warning. As the Post described it:

"It was simply a freak of war. No ground was gained, none was defended, no tactical purpose was served, people were assassinated in their beds as they dozed or lounged or clowned with buddies. They were in a converted warehouse in the suburbs of Saudi Arabia, 200 miles behind the front line, in a neighborhood that included a supermarket, a

hotel, and other buildings. The war was winding down. Two days after the attack, it would be over."

This was not the fist time that Iraqi fired a missile in anger. Just a few years earlier in the Iran-Iraq War where Baghdad's Scuds caused over 1100 deaths and 4000 wounded in Tehran. This clearly will not be the last time that missiles are fired in anger.

Since 1980, ballistic missiles have been used in six regional conflicts. Strategic ballistic missiles exist in abundance around the world today.

Ballistic missiles are fast becoming the weapons of first choice of those who seek to harm American interests abroad. We know, and our intelligence community confirms, that 25 nations have ballistic missiles of different degrees of technology, the capability is there.

Keep in mind, the one that murdered 28 Americans was a very primitive Scud missile. These 25 nations all have missiles that are much more sophisticated than that today.

Let me state a few other important facts:

Five nations have declared they have nuclear weapons and at least 20 other nations either unofficially have weapons of mass destruction and the means of delivering them or are attempting to gain those weapons and delivery systems today.

North Korea has a ballistic missile, which can reach Alaska, Hawaii, and Guam today.

While the end of the Cold War signaled a reduction in the likelihood of global conflict many countries recognize that weapons of mass destruction and missiles increase their ability to deter, coerce, or otherwise threaten the United States and its allies.

The proliferation of these is a direct and immediate threat to the security of U.S. military forces, as well as our allies and friends.

We have already witnessed the willingness of countries to use theater-class ballistic missiles for military purposes.

There will be a next time and we must be ready. Theater Missile Defenses is designed to protect our deployed troops, allies and friends. Our TMD systems must be able to deploy rapidly and move with the troops. In order to do this there must be good systems and good training.

The Pacific Missile Range Facility is recognized as the leader in training and testing. Their unique location supports missions involving space, air, surface, and sub-surface. With a thousand square miles of instrumented underwater range and over 42,000 square miles of controlled airspace PMRF is the premier facility for testing and training.

The Draft Environmental Impact Statement shows that there would be no significant impact if the new programs were implanted and PMRF leases were extended until 2030. The fact that there are huge economic bonuses to the Kauai and Niihau are just that - a plus.

But the real winners of the testing and training will be our children, they will be the ones who will have to fight the next fight.

We need to insure them that when our country needs to put them in harms way, we can protect them with the systems that have been tested, perfected and trained on at PMRF. This will give them the opportunity that was denied seven years ago to those 28 Americans who lost their lives in that cold-blooded Iraqi Scud missile attack.

Thank you,

Gregg Gardiner

9-154

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0918
23 OCT 1998

Mr. Gregg Gardiner
PO Box 3028
Lihue, HI 96766

Dear Mr. Gardiner:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support on behalf of the Kauai Chapter of the Marine Corps League for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. As one of those who have put their lives on the line for the protection and defense of our country, we recognize your valuable perspective concerning the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing our positive relationship with the Marine Corps League and other business and civic organizations on Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0142

P-W-0145

CONTRACTORS ASSOCIATION OF KAUA'I
P.O. Box 64, 4231 Ahukini Road, Lihu'e, Hawai'i 96766
Phone (808) 246 -2662 Fax (808) 246-8642

April 25, 1998

U.S. Navy

TESTIMONY OF THE CONTRACTORS ASSOCIATION OF KAUA'I ON:

THE DRAFT EIS FOR THE PACIFIC MISSILE RANGE FACILITIES

My name is Robby Rask, president of the hundred member Contractors Association of Kaua'i. I am submitting testimony on behalf of the association in support of the Draft Environmental Impact Statement for the Pacific Missile Range Facility that was published on April 8, 1998.

Based on the findings of the documents it appears that any impacts to the environment as a result of the enhancements will be minimal. We believe that even with this new program to support Navy Theater Ballistic Missile Defense, PMRF will continue to operate as it has for the past 35 years: safely and with minimal impact to the environment.

The Contractors Association of Kaua'i also recognizes the importance of a strong national defense for our country and supports the contribution that PMRF is making in this area.

In addition, the benefits that PMRF provides to this community are significant. PMRF employs 865 people, and has an annual payroll of $45 million. It is one of the largest employers on the island and the largest provider of high tech jobs on Kaua'i. These jobs help to maintain a strong middle class on Kaua'i, which is important for people wanting to earn a decent living, buy homes, raise families and retire here.

PMRF also has a positive impact on the members of our organization. Some of our members have performed jobs as general contractors or as subcontractors at PMRF. This benefits the community.

PMRF also supports the U.S. Naval Sea Cadet program whose members and families recently helped the association at the Building and Remodeling Expo.

The Contractors Association of Kaua'i supports the proposed enhancements because it will help ensure the continued operation of the Pacific Missile Range Facility at Barking Sands, and this is good for Kaua'i, good for Hawai'i and good for the nation.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/0813
23 OCT 1996

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0145

Mr. Robby Rask
President
Contractors Association of Kauai
PO Box 64
4231 Ahukini Road
Lihue, HI 96766

Dear Mr. Rask:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support, on behalf of the Contractors Association of Kauai, for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We agree that a strong partnership with our neighbors in both technical and civic areas is beneficial to both Kauai and the larger Hawaiian community and the Navy. Congress has recognized the benefits of the technology base and extensive off-shore range area at PMRF in identifying it as the primary area to test the Navy's theater ballistic missile defense systems. As in the past, we believe these activities can be conducted safely and with minimal impact to the environment.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

P-W-0148

9-156

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name Alan Lloyd

Address P.O. Box 31032
Hono 96820

April 1998

Printed on recycled paper

Honolulu Council
NAVY LEAGUE OF THE UNITED STATES
FOUNDED 1902

Testimony on the Draft Environmental Impact Statement
for the
Theater Ballistic Missile Defense Program
at the
Pacific Missile Range Facility (PMRF) Kauai
April 25 1998

I am Alan S. Lloyd. I am a National Director of the Navy League of the United States and I am testifying on behalf of the 5,500 members of the Honolulu Council of the Navy League.

The Honolulu Council strongly supports the proposal by the United States Navy to upgrade the existing installations and capabilities at PMRF in order to qualify this facility as the "Lead Range" for our nations Theater Missile Defense Testing Program.

During the 1991 war in the Persian Gulf, the only weapon systems that we could not adequately counter were the relatively primitive Iraqi "scud" ballistic missiles. If we are going to ask our young men and women to go into harms way in future military conflicts, we must insure that they have the necessary equipment to protect themselves, as well as the civilian populations and troops of our allies, especially if such defensive systems could be produced and made available at reasonable cost.

The United States Congress has recognized that the broad, open ocean areas north and west of Kauai's Napali Coast coupled with multiple sites for radar tracking stations at high elevations are ideal for testing the theater missile defense systems that must be perfected over the next several years. There is no other range that has the unique technical, operational and geographical advantages of the PMRF on Kauai.

Not only do the assets of the PMRF offer a unique advantage to our nation and its armed forces but in addition they offer a very special advantage to our states economy and to the daily living environment of the people who live on Kauai and also on Niihau. These advantages include the following:

> In addition to the Navy personnel assigned to the Barking Sands facility, PMRF provides 800 civilian jobs for Kauai residents. If the PMRF is upgraded to support the theater missile defense program and also to improve its ability to serve our Navy's ongoing daily needs for training and testing of its ships and equipment, PMRF will

P. O. BOX 31032 • HONOLULU, HAWAII 96820 • (808) 422-9404 • FAX (808) 423-0749 • E-Mail NavyLeague@AOL.COM

remain part of Kauai's economy for a long time and these 800 jobs will remain secure.

- It is a well established fact that some of our nation's best preserved coastlines are on U. S. military reservations. These military facilities protect their shorelines from commercial development and the necessary base security requirements protect historic sites from poaching and vandalism as well as the piles of trash and garbage that often accumulate in areas that are accessible to the general public.

- The island of Niihau has been preserved in a very special way by the Robinson family. It is the only place where Hawaiian is still the spoken language and the only island where the traditional Hawaiian values are still practiced by the entire population. It is very important that this most Hawaiian of our State's communities remain viable and intact for the foreseeable future. For this to continue, the Niihau Ranch must have a steady income that is dependable and that minimizes the need for a subsidy from sugar operations on Kauai. In this context, it is important to note that sugar production has ceased on Oahu and on the Big Island. In 1960, there were six sugar mills and three pineapple canneries on Kauai. Today, only three sugar mills remain in operation and the canneries are gone.

- Because the traditional land management policies of the Navy's Barking Sands facility and the Niihau Ranch are so similar, the two organizations have been able to work together with great harmony. For ten years, PMRF has maintained an unmanned, remote controlled radar tracking station on Niihau. As part of this proposal to upgrade PMRF's ability to test these new missile defense systems for our nation, the Navy is proposing to lease additional sites from the ranch on Niihau. Because of the traditions and the culture of the community on Niihau it will not be necessary to station any Navy or civilian personnel on Niihau to supervise these new facilities. As a result, the Niihau Ranch will gain additional income and the traditional Hawaiian lifestyle of the island will not be adversely affected.

- The PMRF represents a very special economic asset to the only island of our state that has been badly damaged by four hurricanes in the last half of this century. PMRF is not only a "hurricane proof" business for Kauai, it's an important emergency facility and organization that is always available to assist the people of Kauai and Niihau during natural disasters. Storm damage to PMRF installation following hurricane Iniki was minimal and its airport runways were available to receive emergency supplies within 24 hours after the storm.

- The state of Hawaii is presently suffering from a significant economic downturn. For this reason it is very important to encourage existing businesses to expand and invest in new facilities so that their operations will remain economically viable and that the state's tax base will be protected. Several years ago, a suggestion was made by two United States Senators that the PMRF should be shut down as part of the Defense Department's need to close military bases throughout the nation. The Honolulu Council immediately wrote to those Senators to make sure that they were fully informed as to the unique assets that the PMRF offers for our Navy. Fortunately, the U. S. Congress is now fully aware of the importance of PMRF and the special role that it stands ready to play in testing the new defense equipment that will protect the lives of our military personnel in future engagements.

  Because our military must constantly train and test their equipment to insure that we will prevail in any future conflict with minimum loss of ships and aircraft and more importantly with minimum casualties, active military assets and bases must be located where they can accurately calibrate their equipment and continuously train their people. Accordingly, the presence and the capabilities of the PMRF are an important consideration with regard to homeporting ships and maintaining significant maintenance facilities at the Pearl Harbor Naval Shipyard on the island of Oahu.

In closing, the Honolulu Council of the Navy League strongly supports this proposal to upgrade the existing installations and the capabilities of the Pacific Missile Range Facilities on the islands of Kauai and Niihau. We completely concur with the draft environmental study conclusion that there will be no significant adverse environmental impacts on Kauai or Niihau resulting from the proposed expansion of the PMRF.

In addition, we would like to reiterate that these proposed improvements will help support the continued existence of the very special culture and lifestyles of the families who live on Niihau. These improvements will also insure the continued existence of a naval facility on Kauai capable of rendering emergency assistance following hurricanes. They will also insure that this important contributor to the economy of Kauai (and state of Hawaii) remains in operation for many years and finally they will insure that PMRF will continue to play a major role in maintaining a strong and healthy defense posture for our nation.

Thank you for the opportunity to present this testimony.

ASL:la

9-158

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0891
23 OCT 1998

Mr. Alan S. Lloyd
Director
Navy League of the United States
PO Box 31032
Honolulu, HI 96820

Dear Mr. Lloyd:

Thank you for your comments and participation in the public hearing process on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support on behalf of the Honolulu Council of the Navy League of the United States for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. As one of the representatives of those who have put their lives on the line for the protection and defense of our country, we recognize your valuable perspective concerning the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses. We look forward to continuing our positive relationship with the Navy League and other business and civic organizations on Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0148

Kapaa Business Association
P.O. 1480
Kapaa, Kauai, HI 96746

April 25, 1998

To Whom It May Concern:

Aloha. The Kapaa Business Association supports the proposed improvements to the Pacific Missile Range Facility at Mana, Kauai, Hawaii.

Historically, PMRF has been a good neighbor on the West Side of Kauai. The social and economic contributions made by PMRF go back over thirty years. The benefit to Kauai in the form of direct wages and goods and services contracts, can not be understated. The hands on assistance by the facility after Hurricane Iniki is just one example of PMRFs integral role as part of Kauai.

PMRF is a significant part of the Naval training necessary for the peace and knowledge necessary in today's complex and volatile political world. Furthermore the 800 or so civilian jobs that PMRF provides gives security for many families.

The impact on natural and cultural environments will be carefully monitored.

The benefits realized by the improved capabilities is critical to the well being of Kauai and will assure the long-term viability of one of the Kauai's largest employers and will be an important step in stabilizing the County's future.

On behalf of the Kapaa Business Association,

Ed MacDowell
President

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

P-W-0156

IN REPLY REFER TO:

5090
Ser 00/ 0814
23 OCT 1998

KAUAI VETERANS COUNCIL
3125 KAPULE HIGHWAY
LIHUE, HAWAII, 96766

Mr. Ed MacDowell
Kapaa Business Association
PO Box 1480
Kapaa, Kauai, HI 96746

Dear Mr. MacDowell:

Thank you for your comments and participation in the public hearing process on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support, on behalf of the Kapaa Business Association, for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We agree that a strong partnership with our neighbors in both technical and civic areas is beneficial to both Kauai and the larger Hawaiian community and the Navy. Congress has recognized the benefits of the technology base and extensive off-shore range area existing at PMRF in identifying it as the primary area to test the Navy's theater ballistic missile defense systems.

The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0154

Dear Ladies and Gentlemen:

The Kauai Veterans Council consisting of the following veterans organizations: American Legion Post #2; American Legion Post #51, American Legion Post #54; Disabled American Veterans Kauai Chapter No. 5; Kauai Merchant Marine; Kauai Veterans Club; Kauai Vietnam Era Veterans Association; Kauai 100th Infantry Battalion Veterans; Kauai 442nd R.C.T. Veterans Club; Korean War Veterans; Military Intelligence Service Veterans of Kauai; Miliary Order of the Purple Heart Chapter #489; Veterans of Foreign Wars; American Legion Auxillary unit #2; Sons and Daughters of the 100/442nd R.C.T., respectfully submit this letter as a testimonial in favor of the program for expansion of the P.M.R.F. facilities and the E.I.S. of the project.

American Legion Post #2

American Legion Post #51

American Legion Post #54

Disabled American Veterans, Chp.#5,

Kauai Merchant Marine

Kauai Vetrans Club

Kauai Vietnam Era Vet. Assn.

Kauai 100th Inf. Bttn. Vets. Kauai

Kauai 44nd R.C.T. Veterans Club

Korean War Veterans

Mil. Inteligence Service Vets K.

Military Order of the Purple Heart

Veterans of Foreign Wars

American Auxillary Unit #2

Kaui Sons and Daughters 100/442

MARINE CORP LEAGUE, KAUAI DETACHME.

9-159

P-W-0159

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0815
23 OCT

9-160

Kauai Veterans Council
3125 Kapule Highway
Lihue, HI 96766

Dear Ladies and Gentlemen:

Thank you for your comments and participation in the public hearing process on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support on behalf of the Kauai Veterans Council for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. As one of the representatives of those who have put their lives on the line for the protection and defense of our country, we recognize your valuable perspective concerning the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses. We look forward to continuing our positive relationship with the Navy League and other business and civic organizations on Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0156

HAWAI'I
Kauai Visitors Bureau

Island of Kauai
3016 Umi Street #207
Lihue, Hawaii, USA 96766
Telephone: 1.808.245.3971
Fax: 1.808.246.9235

April 22, 1998

Ms. Vida Mossman
Public Affairs Officer
Pacific Missile Range Facility
P.O. Box 128
Kekaha, HI 96752

Dear Ms. Mossman:

On behalf of the Kaua'i Visitors Bureau (KVB), I would like to offer our support of the Pacific Missile Range Facility's (PMRF) efforts in testing and evaluation on the island of Kaua'i. KVB supports the upgrade and enhancement of PMRF's capabilities in instrumentation, communications equipment, radars and sensors. PMRF provides over 800 civilian jobs to our island and has been a strong community supporter over the years.

The efforts of defense testing by PMRF have provided the foundation for high technology development on the island, as well as global support to the future of the nation's defense systems.

We continue to support PMRF and its employees in their goal of providing the best facility available for protecting the United States of America.

Sincerely,

Susan A. Kanoho
Executive Director

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/0816
23 OCT 1998

Ms. Susan A. Kanoho
Executive Director
Hawaii, Kauai Visitors Bureau
3016 Umi Street #207
Lihue, HI 96766

Dear Ms. Kanoho:

We appreciate your expression of support on behalf of the Kauai Visitors Bureau for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0159

9-161

P-W-0162



West Kaua'i Main Street

April 25, 1998

Captain James Bowlin
Commanding Officer, PMRF
P.O. Box 128
Kekaha, HI 86747

RE: Support for PMRF Initiative

Captain Bowlin:

The West Kaua'i Main Street Program along with its parent company, the West Kaua'i Business & Professional Association would like to express our full support for your initiative. Our members consists of medium and small businesses who employ many residents of West Kaua'i. It is our belief that the expansion of capability will enhance PMRF's position as a testing facility. It will create job opportunities for our residents and will definitely have a beneficial impact on the economy of Kaua'i as a whole.

I would also like to thank you and your employees for your constant support of community-based initiatives and projects. PMRF's dedication to community service has improved the lives of our elderly as well as our children. We are truly blessed to have you as our neighbor.

Sincerely,

Calvin H. Shirai
Project Manager

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

9-162

IN REPLY REFER TO:

5090
Ser 00/ 0817
23 OCT 1998

Mr. Calvin Shirai
Project Manager
West Kauai Main Street
Waimea, HI 96796

Dear Mr. Shirai:

We appreciate your expression of support on behalf of the West Kauai Main Street Program for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0162

NAVY LEAGUE OF THE UNITED STATES
Kauai Council
P.O. Box 1008
Kalaheo, HI 96741

Testimony of Robert D. Mullins, President of the Kauai Council,
in Support of the Proposed Enhancements at
the Pacific Missile Range Facility
25 April 1998

Good Morning everyone, and Aloha. My name is Robert Mullins, and I'm speaking today on behalf of the more than 400 members of the Kauai Council of the Navy League of the United States. We strongly support the proposal to enhance the capabilities of the Pacific Missile Range Facility to conduct Theater Missile Defense testing, and concur in the EIS finding of no significant impact .

One of the key lessons learned from the Gulf War in 1991 was the need for the United States to develop systems to counter short and medium range missiles like the Iraqi SCUD. Recent headlines regarding the threat to our forward deployed troops and regional civilian populations from these missiles and their capability of carrying weapons of mass destruction make it even more apparent that a defensive capability must be developed. The U.S. Congress has mandated that testing and evaluation of candidate systems be conducted to develop a technically capable and cost effective counter to this obvious threat.

Congress has also recognized that the broad, open ocean area to the north and west of Kauai are idea for the types of testing that must be accomplished over the course of the next several years. The PMRF Range provides the perfect combination of a large, unencroached, operationally representative area in which to conduct the testing safely and still acquire the quality data required to determine the effectiveness of the systems being evaluated.

We appreciate the need to conduct Theater Missile Defense Testing and recognize that PMRF is the best place to conduct this testing safely and effectively. We concur in the finding of No Significant Impact as a result of these activities as stated in the EIS, and urge that this program proceed as soon as possible

Captain Bowlin, on behalf of the 400 members of the Kauai Council of the Navy League, I say "Full Speed Ahead".

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0818
23 OCT 1998

Mr. Robert Mullins
Kauai Council
Navy League of the United States
PO Box 1008
Kalaheo, HI 96741

Dear Mr. Mullins:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support on behalf of the Kauai Council of the Navy League of the United States for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. As one of the representatives of those who have put their lives on the line for the protection and defense of our country, we recognize your valuable perspective concerning the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses. We look forward to continuing our positive relationship with the Navy League and other business and civic organizations on Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0168

9-163

TESTIMONY FOR THE PACIFIC MISSILE RANGE EXPANSION PROJECT
Saturday, April 25, 1998
Mana, Kaua'i

Good morning. My name is Hilda Cannon and I am a Kaua'i resident as well as the Kaua'i District Coordinator for Catholic Charities. I am here to speak in behalf of the pending ~~expansion~~ enhancement of the Pacific Missile Range Facilities projects.

This proposed expansion should have positive results for our island people and our island economy. We expect that there will be additional job opportunities for many who presently have no hope for survival unless projects such as this one can happen on Kaua'i. And it is without question in my mind that PMRF has taken into consideration all the ramifications of this project and how it will affect our island people.

This had been the pattern of thought for this facility. PMRF has demonstrated its caring for this island through critical times. Specifically, after Hurricane Iniki's attack on us, PMRF was there for us in a multitude of ways. Catholic Charities received several grants to aid the vicitims of Iniki. PMRF volunteered their time and expertise to pre-cut, construct storage units needed throughout the island for people to place their household goods until their homes could be repaired. They assisted the elderly by going to their homesites to construct these deperately needed units. They covered roof-tops for dwellings which were still standing so people could at least have shelter in their own homes. They brought blankets and pillows and water and ice for all ages. They delivered food. They cleared roadways. They were a vital life-line to the people on Kaua'i and gave us hope and encouragement.

I am here to support their efforts to let us be involved in the high technology demands of our high tech society. They have been there for us and we needed their

9-164

support. Let us please do the same for them. They deserve this and more. Let us reconize that fact that PMRF ARE GOOD NEIGHBORS!!!

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0819
23 OCT 1998

Ms. Hilda Cannon
District Coordinator
Catholic Charities
Immaculate Conception Church
Kapaia Road
Lihue,Kauai, HI 96766

Dear Ms. Cannon:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support, on behalf of Catholic Charities, for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We agree that a strong partnership with our neighbors in both technical and civic areas is beneficial to both Kauai and the larger Hawaiian community and the Navy. Congress has recognized the benefits of the technology base and extensive off-shore range area existing at PMRF in identifying it as the primary area to test the Navy's theater ballistic missile defense systems

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0171

Telephone: 808-332-7187

NAVY LEAGUE OF THE UNITED STATES
Serving the Sea Services since 1902

A.E. Gene Bullock
HAWAII STATE VICE PRESIDENT
NATIONAL DIRECTOR
P.O. Box 1022, Kalaheo, HI.. 96741-1022

Good Morning Everyone ----------

I am Gene Bullock and presently I am serving as the State Vice President and also a National Director for the Navy League of the United States. The Navy League is a civilian organization formed in 1902 to awaken our citizens to the fact that the United States is a MARITIME NATION and therefore we should and must maintain a strong NAVY - MARINE CORPS - COAST GUARD - AND MERCHANT MARINE. Our efforts are directed to these SEA SERVICES and to aid, improve, help develope their efficiency and general welfare. Our membership today here in the Hawaiian Islands is over 8,000 and growing. At the NATIONAL LEVEL our membership has crossed over the 70,000 mark with council through-out the world.

We strongly support and recommend approval of the EIS regarding the Enhancement of Capabilities for PMRF to study,test and develope a DEFENSE SYSTEM against TBM weapons. We feel any of the minimal and/or minor adverse effects revealed within the EIS must be weighted against the dier need to develope a top level TBM DEFENSE for our Nation. We must protect the lives of the men and women of our Armed Forces who are placed in "HARMS WAY" today and also the lives of other civilians that may be subject to a attack. YES ----- THIS THREAT IS REAL AS MORE AND MORE OF THESE WEAPONS ARE AVAILABLE ON THE WORLD MARKET TO ANYONE WITH THE CASH. WE SHOULD NOT ---- WE CAN NOT CONTINUE TO ASK OUR ARMED FORCES TO FACE THESE WEAPONS WITHOUT A DECISIVE DEFENSE SYSTEM. The Congress of the United States recognizes this is a NATIONAL THREAT and has approved funds to find the solution. YES ---- THIS IS THE RIGHT THING TO DO AND THE ONL THING TO DO AS LONG AS THIS THREAT REMAIN IN MANY AREAS OF OUR WORLD. LETS NOT PLAY GAMES OR MAKE THE MISTAKE AND GAMBLE WITH THESE INDIVIDUALS. YES --- THEY HAVE THESE WEAPONS --- YES ---- THEY HAVE USED THESE WEAPC AND YES ---- THEY HAVE HURT US BEFORE IN THE LOSS OF HUMAN LIVES IN OUR MILITARY.

Therefore --- letshave the EIS on the Enhancement Capabilities for PMRF approved now. They have the knowledge, the people, the range and ability to accomplish the vital task. YES ----- GIVE PMRF THE GREEN LIGHT TO GET STARTED.

THANK YOU

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0820
23 OCT 1998

9-166

Mr. A.E. Gene Bullock
Hawaii State Vice President
National Director
Navy League of the United States
PO Box 1022
Kalaheo, HI 96741-1022

Dear Mr. Bullock:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support on behalf of the Navy League of the United States for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. As one of the representatives of those who have put their lives on the line for the protection and defense of our country, we recognize your valuable perspective concerning the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses. We look forward to continuing our positive relationship with the Navy League and other business and civic organizations on Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0172

CHAMBER of COMMERCE KAUA'I
P.O. Box 1969
Lihu'e, Hawai'i 96766
Phone: (808) 245-7363
Fax: (808) 245-8815
E-Mail Address: kcofc@aloha.net

April 25, 1998

Ms. Vida Mossman
Public Affairs Officer
Pacific Missile Range Facility
P.O. Box 128
Kekaha, HI 96752

Dear Ms. Mossman:

The Kaua'i Chamber of Commerce is in strong support of the proposed enhancements at PMRF in support of the Theater Missile Defense Program. In a recent survey of our membership, 156 out of 645 surveys sent were returned. Our membership is overwhelmingly in support of PMRF and the proposed enhancements.

Over the past 35 years, PMRF and its over 800 local civilian employees have been an integral part of our community. The proposed enhancements will allow the continued viability of PMRF as a national range for the next 15 to 20 years.

The economic impact is enormous but simple. The proposed enhancements will give local Kaua'i contractors an opportunity to bid for the over $33 million in projects. It will give our local businesses the opportunity to continue to supply the base with operational goods and services for the next 15 to 20 years. The additional revenue to businesses on the island from the various customers and contractors who visit the island is also substantial. There is also the possibility of additional employment opportunities for the residents of Kaua'i as well as the continued employment of over 800 local civilians.

Over 91% of the businesses who responded felt that PMRF holds a key to future high tech initiatives on Kaua'i. The proposed enhancements could serve as a catalyst for other high tech initiatives on Kaua'i. Over 94% of the businesses surveyed feel that PMRF needs to enhance its competitive position as a valued national asset as well as Kaua'i's largest high tech employer.

Given that Congress has mandated that Theater Missile Defense testing be conducted to develop a technically capable, cost-effective counter to cruise missiles, and that this program would entail a $33 million upgrade at PMRF, over 91% of businesses surveyed support the proposal to enhance the existing capabilities at the Pacific Missile Range Facility.

Based on our membership's response and the 35-year track record of stewardship of the environment by PMRF, the Kaua'i Chamber of Commerce urges the Department of Defense to move forward with the proposed enhancements at PMRF in support of the Theater Missile Defense Program mandated by Congress. We would also like to thank Congress for designating the Pacific Missile Range Facility at Barking Sands as the "Lead Range" for this testing. We agree that PMRF offers unique geographical advantages that will enable this long term program to be accomplished safely and effectively.

Sincerely,

Laurie L. K. Yoshida
President

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0836
23 OCT 1998

Ms. Laurie L. K. Yoshida
President
Kauai Chamber of Commerce
PO Box 1969
Lihue, HI 96766

Dear Ms. Yoshida:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support on behalf of the Kauai Chamber of Commerce for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0173



Testimony by the Veterans of Foreign Wars, Department of Hawaii in favor of the Pacific Missile Range Facility Enhanced Capability and the Theater Missile Defense Program
April 28, 1998 – Honolulu, Hawaii

Good evening, Captain Bowlin, ladies and gentleman, my name is Richard Irwin. I am offering testimony on behalf of Larry Sakamoto, Commander, Department of Hawaii, Veterans of Foreign Wars, representing 4,000 combat veterans. I also offer testimony on behalf of Ed Kawamura, Commander of the Kauai Veterans Council representing all Kauai Veterans.

We speak from personal experience on the battlefield. The experiences of combat have led us to believe that a strong defense is the best way to prevent war and protect our Country. We strongly support the proposed action in the EIS for the PMRF Enhanced Capability and the Theater Missile Defense Program and believe it to be in the Nation's best interest to proceed as soon as possible.

Furthermore, we feel that the proposed action will have minimal impact to the environment and wildlife because of careful oversight by PMRF. Some here today will undoubtedly address these issues with hype and distortion but the facts are clear and speak for themselves: PMRF has a proven track record of launching missiles for over 30 years with absolute safety to personnel, the community, and the environment!

Some may remember the hysteria associated with the STARS program. The subsequent four successful STARS launches and environmental monitoring showed the facts to be as stated in the Record of Decision: MINIMUAL IMPACT! The island was NOT covered with toxic gases or showered with burning debris and rocket fuel, in fact, most residents were not even aware of the launches!

The facts are clear that PMRF and the dedicated folks who work there are better protectors of the environment than most. Just take a walk down the pristine beaches and look for yourself: the land and wildlife are well cared for, endangered species thrive under the Navy's protection.

Some may say the Cold War is over and missile defense is not needed. Just ask yourself about the 20 countries that possess or are developing nuclear, biological and chemical weapons and ballistic missile delivery systems. A defense is needed and it is needed now!

The real benefit of the Theater Missile Defense Program at PMRF is to better protect our Armed Forces sent in harms way: your neighbors, nieces and nephews, brothers and sisters, sons and daughters. Would you send them into battle ill prepared without the proper equipment? Would you send them to fight without the best possible protection against attack from ballistic missiles? I think not! The fact of the matter is that we cannot adequately protect them today! We do not have an effective defense against short-range ballistic missiles.

The Theater Missile Defense program at PMRF will result in systems that will protect our troops! The ones who lay it on the line for each and every one of us so that we may enjoy the freedom guaranteed by the Constitution. Remember them tonight, they are on watch: some in harm's way, doing their duty for us. Remember them: our sons and daughters, neighbors and friends.

I ask each and every one of you to support this program, and the dedicated men and women of the Pacific Missile Range Facility. Thank you.

Richard Irwin, Commander,
Veterans of Foreign Wars
Cordoza-Defries Post 3855, Kapaa, Kauai, Hawaii

Representing:
Larry Sakamoto, Commander
Department of Hawaii
Veterans of Foreign Wars

Edward Kawamura, Commander
Kauai Veterans Council
Lihue, Kauai, Hawaii

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/0821
23 OCT 1998

Mr. Richard Irwin
Commander
Veterans of Foreign Wars
Cordoza-Defries Post 3855
Kapaa, Kauai, HI 96746

Dear Mr. Irwin:

We appreciate your expression of support, on behalf of the Department of Hawaii Veterans of Foreign Wars, for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. As one of the representatives of those who have put their lives on the line for the protection and defense of our country, we recognize your valuable perspective concerning the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

PMRF is proud of its safety record and stewardship of the environment in its more than 35 years of launching and testing missile systems. We have been able to conduct our programs over the years with very little environmental impact, and our goal is to continue to do so. We recognize that many who have opposed PMRF programs have claimed that there would be unacceptable environmental impacts as a result. We do not believe this has been borne out.

We look forward to continuing our positive relationship with the Veterans of Foreign Wars and other business and civic organizations in Hawaii.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0180

9-169

AHUPUA`A ACTION ALLIANCE
3634A Halekipa Place ◙ Honolulu, Hawai`i 96816
phone (808) 738-0084 ◙ fax (808) 738-1094

April 28, 1998

Aloha and mahalo for this opportunity to comment on the Draft Environmental Impact Statement for the Pacific Missile Range Facility Enhanced Capability. My name is Kat Brady and I am the Resource Analyst for the Ahupua`a Action Alliance, the first coalition of native Hawaiian and grassroots environmental organizations. To date we have close to 75 member organizations whose combined memberships number into the thousands. Our mission is to preserve and protect the life of the land by restoring ahupua`a resource management systems. Our members are all throughout Hawai`i Nei and are working daily to protect the `aina.

Section 3.1.1.4 Cultural Resources - PMRF/Main Base:

Your guidelines provide "Three Treatment Categories for Cultural Resources" -
Category I includes resources "of outstanding historical, architectural, archaeological, engineering, or cultural significance";
Category II includes resources "of lesser historical, architectural, archaeological, engineering, or cultural significance";
Category III includes resources that qualified professionals have concluded do not meet National Register eligibility".

In Hawai`i, our cultural resources are more than merely "stones and bones" and are sometimes not apparent to the Western eye. The native Hawaiian people have many sites of significance that were used for different purposes. Some are ridges used for navigation, some are shrines in unmarked areas, and some are gathering sites for the practice of constitutionally protected traditional and cultural rights. All are very important to us.

We suggest, therefore, that you use the enclosed "Guidelines for Assessing Cultural Impacts" adopted in November 1997 by the Environmental Council of the Office of Environmental Quality Control. The Alliance also would be glad to suggest cultural practitioners who could serve as resources for your research into this issue. We firmly believe that the practitioners in the area know their place best and are the logical source for information.

3.1.2 RESTRICTIVE EASEMENT (GROUND HAZARD AREA)

The DEIS states "Missile flight safety procedures require that the public and nonessential mission personnel be excluded from the ground hazard area to protect them in the unlikely event of an early flight termination."

How do you plan to notify the public?

How will traditional and cultural resources be protected?

3.1.3.4.2.3 Traditional Resources

The DEIS states "The current project area is situated in the upland forested region (Wao Nahele) of Waimea. This area was not traditionally favored for long term habitation, although there exist traditional and historic accounts which document human activities in the region during ancient times."

We suggest that you consult with cultural practitioners in the area to determine the importance of Makaha Ridge to their exercise of traditional and customary practices.

3.1.4.4 Cultural Resources - Koke`e

We echo our comments on Makaha Ridge. Talk to the practitioners in the area.

3.1.5.3.2.3 Traditional Resources - Kamokala Magazines

The DEIS states "The Kamokala Magazines area is situated within a region of Mana specifically known as *leina-a-ka-uhane* (generally cliffs and seacoast promotories) where the spirits of the dead would plunge unto eternity and enter the spiritual realm. Burial sites believed to be associated with the Mana area's *leina-a-ka-uhane* have been identified throughout the cliffs in this region...".

As previously stated, these cliff are sacred sites to the native Hawaiians as navigational locators, burials, religious practices. An analogy might be that to the Western eye it is a cliff, to the native Hawaiians it may be their church/place of worship.

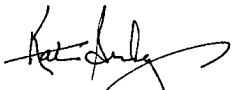
General Questions:

* How can you mitigate destruction or potential destruction to a sacred site?
* What emergency disaster plans do you have in place in the case of an accident or misfire?
* How do you mitigate the loss of a monk seal?
* How does your project interact with Hawai`i's Coastal Zone Management Program?

General Comments:

* Talk to the practitioners on Kaua`i and Ni`ihau to determine to real cultural, environmental, and social impacts of your projects.
* Reference the "Guidelines for Assessing Cultural Impacts".
* As the Hawaiians have done throughout history, look 7 seven generations down the line to determine the REAL impacts of your proposed project on future generations. If you can't justify the resulting impacts of your project today, then you should probably reconsider it.

Your project is of deep concern to those of use who work daily to protect the natural, cultural, and historic resources of this extraordinary place.



Kat Brady
Resource Analyst

GUIDELINES FOR ASSESSING CULTURAL IMPACTS

Adopted by the Environmental Council, State of Hawaii
November 19, 1997

I. INTRODUCTION

It is the policy of the State of Hawaii under Chapter 343, HRS, to alert decision makers, through the environmental assessment process, about significant environmental effects which may result from the implementation of certain actions. An environmental assessment of cultural impacts gathers information about cultural practices and cultural features that may be affected by actions subject to Chapter 343, and promotes responsible decision making. Articles IX and XII of the State Constitution, other state laws, and the courts of the state require government agencies to promote and preserve cultural beliefs, practices, and resources of native Hawaiians and other ethnic groups. Chapter 343 also requires environmental assessment of cultural resources, in determining the significance of a proposed project.

The Environmental Council encourages preparers of environmental assessments and environmental impact statements to analyze the impact of a proposed action on cultural practices and features associated with the project area. The Council provides the following methodology and content protocol as guidance for any assessment of a project that may significantly affect cultural resources.

II. CULTURAL IMPACT ASSESSMENT METHODOLOGY

Cultural impacts differ from other types of impacts assessed in environmental assessments or environmental impact statements. A cultural impact assessment includes information relating to the practices and beliefs of a particular cultural or ethnic group or groups.

Such information may be obtained through scoping, community meetings, ethnographic interviews and oral histories. Information provided by knowledgeable informants, including traditional cultural practitioners, can be applied to the analysis of cultural impacts in conjunction with information concerning cultural practices and features obtained through consultation and from documentary research.

In scoping the cultural portion of an environmental assessment, the geographical extent of the inquiry should, in most instances, be greater than the area over which the proposed action will take place. This is to ensure that cultural practices which may not occur within the boundaries of the project area, but which may nonetheless be affected, are included in the assessment. Thus, for example, a proposed action that may not physically alter gathering practices, but may affect access to gathering areas would be included in the assessment. An ahupua'a is usually the appropriate geographical unit to begin an assessment of cultural impacts of a proposed action, particularly if it includes all of the types of cultural practices associated with the project area. In some cases, cultural practices are likely to extend beyond the ahupua'a and the geographical extent of the study area should take into account those cultural practices.

The historical period studied in a cultural impact assessment should commence with the initial presence in the area of the particular group whose cultural practices and features are being assessed. The types of cultural practices and beliefs subject to assessment may include subsistence, commercial, residential, agricultural, access-related, recreational, and religious and spiritual customs.

The types of cultural resources subject to assessment may include traditional cultural properties or other types of historic sites, both man made and natural, including submerged cultural resources, which support such cultural practices and beliefs.

The Environmental Council recommends that preparers of assessments analyzing cultural impacts adopt the following protocol:

(1) identify and consult with individuals and organizations with expertise concerning the types of cultural resources, practices and beliefs found within the broad geographical area, e.g., district or ahupua'a;

(2) identify and consult with individuals and organizations with knowledge of the area potentially affected by the proposed action;

(3) receive information from or conduct ethnographic interviews and oral histories with persons having knowledge of the potentially affected area;

(4) conduct ethnographic, historical, anthropological, sociological, and other culturally related documentary research;

(5) identify and describe the cultural resources, practices and beliefs located within the potentially affected area; and

(6) assess the impact of the proposed action, alternatives to the proposed action, and mitigation measures, on the cultural resources, practices and beliefs identified.

Interviews and oral histories with knowledgeable individuals may be recorded, if consent is given, and field visits by preparers accompanied by informants are encouraged. Persons interviewed should be afforded an opportunity to review the record of the interview, and consent to publish the record should be obtained whenever possible. For example, the precise location of human burials are likely to be withheld from a cultural impact assessment, but it is important that the document identify the impact a project would have on the burials. At times an informant may provide information only on the condition that it remain in confidence. The wishes of the informant should be respected.

Primary source materials reviewed and analyzed may include, as appropriate: Mahele, land court, census and tax records, including testimonies; vital statistics records; family histories and genealogies; previously published or recorded ethnographic interviews and oral histories; community studies, old maps and photographs; and other archival documents, including correspondence, newspaper or almanac articles, and visitor journals. Secondary source materials such as historical, sociological, and anthropological texts, manuscripts, and similar materials, published and unpublished, should also be consulted. Other materials which should be examined include prior land use proposals, decisions, and rulings which pertain to the study area.

III. CULTURAL IMPACT ASSESSMENT CONTENTS

In addition to the content requirements for environmental assessments and environmental impact statements, which are set out in HAR §§ 11-200-10 and 16 through 18, the portion of the assessment concerning cultural impacts should address, but not necessarily be limited to, the following matters:

1. A discussion of the methods applied and results of consultation with individuals and organizations identified by the preparer as being familiar with cultural practices and features associated with the project area, including any constraints or limitations which might have affected the quality of the information obtained.

2. A description of methods adopted by the preparer to identify, locate, and select the persons interviewed, including a discussion of the level of effort undertaken.

3. Ethnographic and oral history interview procedures, including the circumstances under which the interviews were conducted, and any constraints or limitations which might have affected the quality of the information obtained.

4. Biographical information concerning the individuals and organizations consulted, their particular expertise, and their historical and genealogical relationship to the project area, as well as information concerning the persons submitting information or interviewed, their particular knowledge and cultural expertise, if any, and their historical and genealogical relationship to the project area.

5. A discussion concerning historical and cultural source materials consulted, the institutions and repositories searched, and the level of effort undertaken. This discussion should include, if appropriate, the particular perspective of the authors, any opposing views, and any other relevant constraints, limitations or biases.

6. A discussion concerning the cultural resources, practices and beliefs identified, and, for resources and practices, their location within the broad geographical area in which the proposed action is located, as well as their direct or indirect significance or connection to the project site.

7. A discussion concerning the nature of the cultural practices and beliefs, and the significance of the cultural resources within the project area, affected directly or indirectly by the proposed project.

8. An explanation of confidential information that has been withheld from public disclosure in the assessment.

9. A discussion concerning any conflicting information in regard to identified cultural resources, practices and beliefs.

10. An analysis of the potential effect of any proposed physical alteration on cultural resources, practices or beliefs; the potential of the proposed action to isolate cultural resources, practices or beliefs from their setting; and the potential of the proposed action to introduce elements which may alter the setting in which cultural practices take place.

11. A bibliography of references, and attached records of interviews which were allowed to be disclosed.

The inclusion of this information will help make environmental assessments and environmental impact statements complete and meet the requirements of Chapter 343, HRS. If you have any questions, please call us at 586-4185.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0931
23 OCT 1998

Ms. Kat Brady
Resource Analyst
Ahupuaa Action Alliance
3634A Halekipa Place
Honolulu, HI 96816

Dear Ms. Brady:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement (EIS).

Section 3.1.1.4 Cultural Resources—PMRF/Main Base

The "Guidelines for Assessing Cultural Impacts," which you provided with your comments, states that cultural impact information can be obtained in a variety of ways. These include "scoping, community meetings, ethnographic interviews and oral histories". PMRF has conducted scoping and public hearings on both Kauai and Oahu. Further, individual meetings were held on Niihau with the residents. As recommended in the "Guidelines", these procedures have been documented within the EIS along with the verbatim inputs we have received. We believe that the PMRF EIS meets the intent of the guidelines you provided.

3.1.2 Restrictive Easement

To ensure the protection of all persons and property, safety procedures have been established and implemented. These standard operating procedures include establishing road control points and clearing the area using vehicles and helicopters (if necessary). The State of Hawaii and companies who may have workers in the Ground Hazard Area are notified seven days prior to a launch. The road control points are established 3 hours prior to launch to allow security forces to monitor traffic as it passes through the ground hazard area. At 20 minutes prior to launch the area is determined to be clear of the public to ensure that, in the unlikely event of early flight termination, no injuries or damage to persons or property would occur. After the launch, when Range Safety Officer declares the area safe, the security force gives the all-clear signal, and the public is allowed to reenter the area.

3.1.3.4.2.3 Traditional Resources—Makaha Ridge

At Makaha Ridge, we plan no ground-disturbing activities outside previously disturbed areas.

3.1.4.4 Cultural Resources—Kokee

At Kokee, we plan no ground-disturbing activities outside previously disturbed areas.

3.1.5.3.2.3 Traditional Resources—Kamokala Magazines

To date, Kauai archaeologists and elders have indicated to us that the Leina-a-ka-uhane is not in the area of the magazines, but it should be noted that no modifications to the World War II-era man-made caves or the ridge itself are being proposed.

General Questions

We establish safety areas surrounding launches (called Ground Hazard Areas, or GHAs) and include the possibility of early flight termination in our analysis of environmental effects. Prior to a launch, a Missile Accident Emergency Team (MAET), which includes fire suppression capability, is positioned at the edge of the GHA. The MAET also includes a helicopter with a water bucket airborne or on standby.

As to threatened and endangered species such as the monk seal, we are in consultation with the National Marine Fisheries Service under the Endangered Species Act as indicated in Volume 2, Appendix K, page K-7.

With regard to coastal zone management consistent with Federal requirements, consultation with the State Department of Business, Economic Development and Tourism (DBEDT) has been under way and initiation of the consistency determination process occurred with transmittal of the Draft Environmental Impact Statement and will conclude following issuance of the EIS.

The Congress of the United States has determined that we need to have effective defenses for our armed forces and allies against missile attacks, like the ones that killed many of our young men in Saudi Arabia during the Gulf War. Congress has also recognized that PMRF provides an ideal setting to test these systems because of its established technical infrastructure and the wide ocean expanse to conduct the actual intercept tests.

The leaders of our country must make many difficult decisions concerning how and where to conduct activities that will provide us with a strong defense. PMRF already conducts many testing functions vital to our national defense. The Enhanced Capability EIS is analyzing the environmental impacts of enhancing its capabilities to perform testing of missile systems to protect our armed forces and allies.

9-174

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0184

P-W-0190

The Chamber of Commerce of Hawaii
Since 1850

Testimony to the Commanding Officer
Pacific Missile Range Facility
Wienberg Hall, Disabled American Veterans Complex
2685 N. Nimitz Highway
Tuesday, April 28, 1998, 5:00 p.m.

RE: DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR ENHANCING PACIFIC MISSILE RANGE FACILITY

Captain James A. Bowlin, Commanding Officer, Pacific Missile Range Facility:

My name is Bill Paty, and I am the Chair of the Military Affairs Council ("MAC") of The Chamber of Commerce of Hawaii ("The Chamber"). I am here to submit preliminary comments on behalf of the MAC on the draft environmental impact statement ("draft EIS") for enhancing the Pacific Missile Range Facility on Kauai, Hawaii.

At the outset, The Chamber is currently reviewing in detail the draft EIS with all of its Government Affairs Council standing committees and councils. Upon final review, The Chamber will transmit its comments to you in writing prior to the May 26, 1998, deadline.

However, at this time, I would like to share MAC's perspectives on the role of the military in Hawaii.

The presence of the Armed Forces in Hawaii for nearly a century has contributed directly to the cultural, social, and economic enrichment of island life. The military brings people from all parts of the nation and the world to our State, who in turn promote Hawaii through a vast word-of-mouth network.

In addition to the obvious direct economic rewards, the military-connected population brings new ideas, charitable works, customs and cultures to our lifestyle. While providing for a strong national defense and fostering international prestige for Hawaii, military personnel are also active in community affairs.

1132 Bishop Street, Suite 200 Honolulu, Hawaii 96813 (808) 545-4300 Fax (808) 545-4309

The MAC believes that every effort should me made to promote the State's strategic location for assignment of service members and military assets from all branches of service. This is especially prudent during this period of military downsizing and realignment. While generally recognized as a time of vulnerability, realignment, consolidation, and technological advances in military facilities present tremendous opportunities for our State.

The MAC supports the military's use of land and facilities in Hawaii for training, morale, readiness, and installation activities. Continued access to current training sites to carry out national priorities is crucial to holding Hawaii's Armed Forces presence at current levels. The MAC gratefully recognizes the military's continuing efforts to work with the State government and civilian community on joint land use coordination and the stewardship of Hawaii's endangered species, plants, and animals.

The MAC also strongly supports military projects involving advanced technology. Such endeavors nurture a business climate that attracts high-tech firms to the State. The presence of the Armed Forces here has long contributed to the State's high-technology profile in areas such as health services, ship repair, marine research, environmental studies, scientific testing and evaluation, engineering, computer science, and communications. These fields of expertise provide jobs for a scientifically skilled and educated work force, both civilian and military, public and private. Such endeavors have the potential to infuse the economy while enhancing the State's record as an incubator for technological firms.

Thank you for this opportunity to testify. I'd be happy to answer any questions that you may have.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0937
23 OCT 1998

Mr. Bill Paty
Chair of Military Affairs Council
Chamber of Commerce of Hawaii
1132 Bishop Street
Suite 200
Honolulu, HI 96813

Dear Mr. Paty:

We appreciate your expression of support on behalf of the Chamber of Commerce of Hawaii for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0190

P-W-0193

9-176

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name Tim Guard
Navy League
Address P.O. Box 31032
Honolulu 96820

April 1998

Printed on recycled paper

Honolulu Council
NAVY LEAGUE OF THE UNITED STATES
FOUNDED 1902

Testimony on the Draft Environmental Impact Statement
for the
Theater Ballistic Missile Defense Program
at the
Pacific Missile Range Facility (PMRF) Kauai
April 28 1998

I am Robert T. Guard, President of the Honolulu Council Navy League of the United States and I am testifying on behalf of the 5,500 members of the Honolulu Council of the Navy League.

The Honolulu Council strongly supports the proposal by the United States Navy to upgrade the existing installations and capabilities at PMRF in order to qualify this facility as the "Lead Range" for our nations Theater Missile Defense Testing Program.

During the 1991 war in the Persian Gulf, the only weapon systems that we could not adequately counter were the relatively primitive Iraqi "scud" ballistic missiles. If we are going to ask our young men and women to go into harms way in future military conflicts, we must insure that they have the necessary equipment to protect themselves, as well as the civilian populations and troops of our allies, especially if such defensive systems could be produced and made available at reasonable cost.

The United States Congress has recognized that the broad, open ocean areas north and west of Kauai's Napali Coast coupled with multiple sites for radar tracking stations at high elevations are ideal for testing the theater missile defense systems that must be perfected over the next several years. There is no other range that has the unique technical, operational and geographical advantages of the PMRF on Kauai.

Not only do the assets of the PMRF offer a unique advantage to our nation and its armed forces but in addition they offer a very special advantage to our states economy and to the daily living environment of the people who live on Kauai and also on Niihau. These advantages include the following:

- In addition to the Navy personnel assigned to the Barking Sands facility, PMRF provides 800 civilian jobs for Kauai residents. If the PMRF is upgraded to support the theater missile defense program and also to improve its ability to serve our Navy's

P. O. BOX 31032 • HONOLULU, HAWAII 96820 • (808) 422-9404 • FAX (808) 423-0749 • E-Mail NavyLeague@AOL.COM

ongoing daily needs for training and testing of its ships and equipment, PMRF will remain part of Kauai's economy for a long time and these 800 jobs will remain secure.

- It is a well established fact that some of our nation's best preserved coastlines are on U. S. military reservations. These military facilities protect their shorelines from commercial development and the necessary base security requirements protect historic sites from poaching and vandalism as well as the piles of trash and garbage that often accumulate in areas that are accessible to the general public.

- The island of Niihau has been preserved in a very special way by the Robinson family. It is the only place where Hawaiian is still the spoken language and the only island where the traditional Hawaiian values are still practiced by the entire population. It is very important that this most Hawaiian of our State's communities remain viable and intact for the foreseeable future. For this to continue, the Niihau Ranch must have a steady income that is dependable and that minimizes the need for a subsidy from sugar operations on Kauai. In this context, it is important to note that sugar production has ceased on Oahu and on the Big Island. In 1960, there were six sugar mills and three pineapple canneries on Kauai. Today, only three sugar mills remain in operation and the canneries are gone.

- Because the traditional land management policies of the Navy's Barking Sands facility and the Niihau Ranch are so similar, the two organizations have been able to work together with great harmony. For ten years, PMRF has maintained an unmanned, remote controlled radar tracking station on Niihau. As part of this proposal to upgrade PMRF's ability to test these new missile defense systems for our nation, the Navy is proposing to lease additional sites from the ranch on Niihau. Because of the traditions and the culture of the community on Niihau it will not be necessary to station any Navy or civilian personnel on Niihau to supervise these new facilities. As a result, the Niihau Ranch will gain additional income and the traditional Hawaiian lifestyle of the island will not be adversely affected.

- The PMRF represents a very special economic asset to the only island of our state that has been badly damaged by four hurricanes in the last half of this century. PMRF is not only a "hurricane proof" business for Kauai, it's an important emergency facility and organization that is always available to assist the people of Kauai and Niihau during natural disasters. Storm damage to PMRF installation following hurricane Iniki was minimal and its airport runways were available to receive emergency supplies within 24 hours after the storm.

- The state of Hawaii is presently suffering from a significant economic downturn. For this reason it is very important to encourage existing businesses to expand and invest in new facilities so that their operations will remain economically viable and that the state's tax base will be protected. Several years ago, a suggestion was made by two United States Senators that the PMRF should be shut down as part of the Defense Department's need to close military bases throughout the nation. The Honolulu Council immediately wrote to those Senators to make sure that they were fully informed as to the unique assets that the PMRF offers for our Navy. Fortunately, the U. S. Congress is now fully aware of the importance of PMRF and the special role that it stands ready to play in testing the new defense equipment that will protect the lives of our military personnel in future engagements.

- Because our military must constantly train and test their equipment to insure that we will prevail in any future conflict with minimum loss of ships and aircraft and more importantly with minimum casualties, active military assets and bases must be located where they can accurately calibrate their equipment and continuously train their people. Accordingly, the presence and the capabilities of the PMRF are an important consideration with regard to homeporting ships and maintaining significant maintenance facilities at the Pearl Harbor Naval Shipyard on the island of Oahu.

In closing, the Honolulu Council of the Navy League strongly supports this proposal to upgrade the existing installations and the capabilities of the Pacific Missile Range Facilities on the islands of Kauai and Niihau. We completely concur with the draft environmental study conclusion that there will be no significant adverse environmental impacts on Kauai or Niihau resulting from the proposed expansion of the PMRF.

In addition, we would like to reiterate that these proposed improvements will help support the continued existence of the very special culture and lifestyles of the families who live on Niihau. These improvements will also insure the continued existence of a naval facility on Kauai capable of rendering emergency assistance following hurricanes. They will also insure that this important contributor to the economy of Kauai (and state of Hawaii) remains in operation for many years and finally they will insure that PMRF will continue to play a major role in maintaining a strong and healthy defense posture for our nation.

Thank you for the opportunity to present this testimony.

ASL:la

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

P-W-0195

9-178

IN REPLY REFER TO:
5090
Ser 00/ 0940
23 OCT 1998

Mr. Tim Guard
Navy League
PO Box 31032
Honolulu, HI 96820

Dear Mr. Guard:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support on behalf of Honolulu Council of the Navy League for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0193

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name James Rothschild

Address See attached

April 1998

Printed on recycled paper

Local Union 1260
International Brotherhood of Electrical Workers
2305 So. Beretania St. • Honolulu, Hawaii 96826-1494
Telephone 941-9445
Fax No. 946-1260

HARRY H.K. KAMEENUI
Business Manager-Financial Secretary

WILFRED ANDRADE
President

April 28, 1998

To Whom It May Concern:

The International Brotherhood of Electrical Workers strongly supports the proposed enhancements to the Pacific Missile Range Facility as described in the Draft Environmental Impact Statement published on April 3.

Our review of the proposal to enhance the Pacific Missile Range Facility indicates that any impacts to the environment will be minimal, yet the benefits of the enhancements will be substantial. As the U.S. military continues to downsize and the Pentagon proposes to close 50 military bases in the next few years, the island of Kauai and the State of Hawaii are fortunate that there are plans to upgrade the Pacific Missile Range Facility and locate a high priority National defense project there.

The support that PMRF is being asked to provide to the Navy's Theater Missile Defense program is very similar to the type of work that the base has been carrying out for 35 years, launching and tracking missile targets safely in a controlled environment. The proposal includes enhancing PMRF's equipment and adding some additional launch capabilities and the project will require only small increases in the customary activities at PMRF, yet it will help to ensure the future viability of the base and the continued employment of the approximately 500 workers that the IBEW represents there. Many of the jobs are technical and require high skill levels and are therefore well paying. Few employers on Kauai can offer the high tech job opportunities that PMRF can. It enables more of Kauai's

bright young people to stay on Kauai and work in a challenging environment or to go off island to college or join the military and return to their home with an opportunity to put what they have learned to good use.

Overall, PMRF employs more than 800 people on this island, and has an annual payroll of $45 million. It is one of the largest employers on the island and the largest provider of high tech jobs on Kauai. PMRF helps to maintain a strong middle class on Kauai, which is important for people want to earn a good living, buy homes, raise families and send their children to school. And we strongly support that.

PMRF also contributes to the community by supporting local schools with the adopt-a-school program, the Toys for Tots program, helping to put on the Waimea Town Celebrations and other volunteer efforts.

PMRF is the world's largest ocean range with instrumentation that can create and monitor realistic research, development, test evaluation and training environments for military and advanced technology systems that operate on the sea, under the sea, in the air, in space and on shore safely and without harming the environment.

PMRF is one of the greatest assets to the economy of Kauai, to the community and is an important asset in maintaining a strong national defense for our country. Thank you for the opportunity to comment.

Sincerely,

James Rothschild

James I. Rothschild
Local Union Representative

JIR:ljt

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0822
23 OCT 1998

9180

Mr. James Rothschild
International Brotherhood of Electrical Workers
2305 S. Beretania Street
Honolulu, HI 96826

Dear Mr. Rothschild:

We appreciate your expression of support, on behalf of the International Brotherhood of Electrical Workers Local 1260, for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We consider PMRF's highly skilled and competent employees to be our most valuable asset in performing our mission to provide vital testing and training activities for the Navy. Congress has recognized the benefits of the technology base and extensive off-shore range area existing at PMRF in identifying it as the primary area to test the Navy's theater ballistic missile defense systems.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain and maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0195

BISHOP MUSEUM
CELEBRATING A CENTURY OF DISCOVERY

27 April 1998

Captain J.A. Bowlin
Commanding Officer, U.S. Navy
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Kauai, HI 96752-0128

Attn: Ms. Vida Mossman

RE: Public Comment on the Analysis and Findings for the Pacific Missile Range Facility (PMRF) Enhanced Capability Draft EIS (Document Ref: Ser 7080/0305)

Dear Captain Bowlin:

The Department of Anthropology, Bishop Museum, has reviewed the draft EIS for the PMRF Enhanced Capability and would like to comment on specific sections where adverse affects to potential National Register eligible historic properties by the proposed actions are insufficiently addressed.

1) **PMRF/Main Base (Kauai)**

- Cultural resources appear to be adequately planned for with existing resources identified and procedures outlined for avoiding or mitigating potential adverse effects from the proposed undertaking on federal lands. There are no plans, however, for determining appropriate treatment of historic properties within the Restrictive Easement Area (REA) situated on State and Amfac Sugar-Kauai lands (see pp 3-88, Section 3.1.2.3.2.1). The draft EIS should include plans for consulting with and developing coordinated plans for mitigating effects to National Register eligible properties adversely affected by the undertaking within the REA. For example, what steps will be taken to coordinate efforts, through consultation with land owners, in dealing with potential adverse affects to eligible properties due to brush fires or launch mishaps within the REA?

- The proposed undertaking has the potential to adversely affect eligible historic properties within the REA. The draft EIS indicates that a "100-percent archaeological inventory survey of the region...has not been performed" (pp 3-89). It is the federal agency's responsibility to see that an archaeological survey of the Area of Potential Effect (APE) is carried out to identify historic properties and take into account the potential effects of the undertaking on these properties. How does the Navy plan to comply with their legal responsibilities under Section 106 to complete full inventories of historic properties on non-federal lands within the REA?

2) **Kamokala Magazines**

- The section on Cultural Resource Assessment refers to Section 3.1.1.4.1 which does not discuss cultural resources in the area; citation is incorrect.

3) **Niihau**

- A brief examination of the Archives at Bishop Museum identified a 1924 map of Niihau which identifies early twentieth century historic structures (see enclosed). A comparison of this map with the Potential Ground Hazard Areas and Flight Corridor Azimuth Limits (Volume 1, pp. 4-141, Figure 4.2.1.7-1) indicates a number of these features are within the APE. Please note in particular

The State Museum of Natural and Cultural History
1525 Bernice Street • Honolulu, Hawai'i • 96817-0916
Telephone: (808) 847-3511 • Fax: (808) 841-8968

the historic structures, rock walls, fences, roads, and offshore fishing areas indicated at Kii Landing and Lehua Landing in the northern part of the island. In the southern portion of the island, please note historically recorded stone walls south of the lagoons. The draft EIS does not state explicitly what steps will be taken, beyond the reconnaissance surveys that have been conducted, to document historic properties through oral interviews and historical documentation research, to conduct archaeological inventory survey, to evaluate site significance, and to develop a mitigation plan for these and other historic properties in the APE?

- It is not possible to evaluate the significance of sites identified by the reconnaissance surveys as there is no information given in this section on what sites were identified within the APE (contrast with level of information provided on cultural resources for the PMRF/Main Base, Kauai).

- Historic properties are not evaluated in an appropriate context. For example, Kukuchi's (1987) hypothesis regarding the lack of permanent habitation sites in the northeastern portion of the island (pp. 3-136, Section 3.2.1.4.2.1) suggests that this area was not significant for the island's population. On larger, more well-watered, and ecologically diverse islands like Kauai, permanent habitation sites were supported by sustainable intensive agricultural field systems that were not possible on Niihau. When Niihau is viewed within the context of its overall subsistence and settlement patterns evident through time, the northeastern portion of the island likely provides important evidence for highly mobile, task specific, logistical camps. These sites may very well be considered significant as they would provide evidence of how people sustained their population levels through time, collecting a diverse range of marine and terrestrial resources, with agricultural crops contributing an important but minor component to the overall diet. What is particularly relevant is that earlier populations contended with many of the same constraints faced by today's residents.

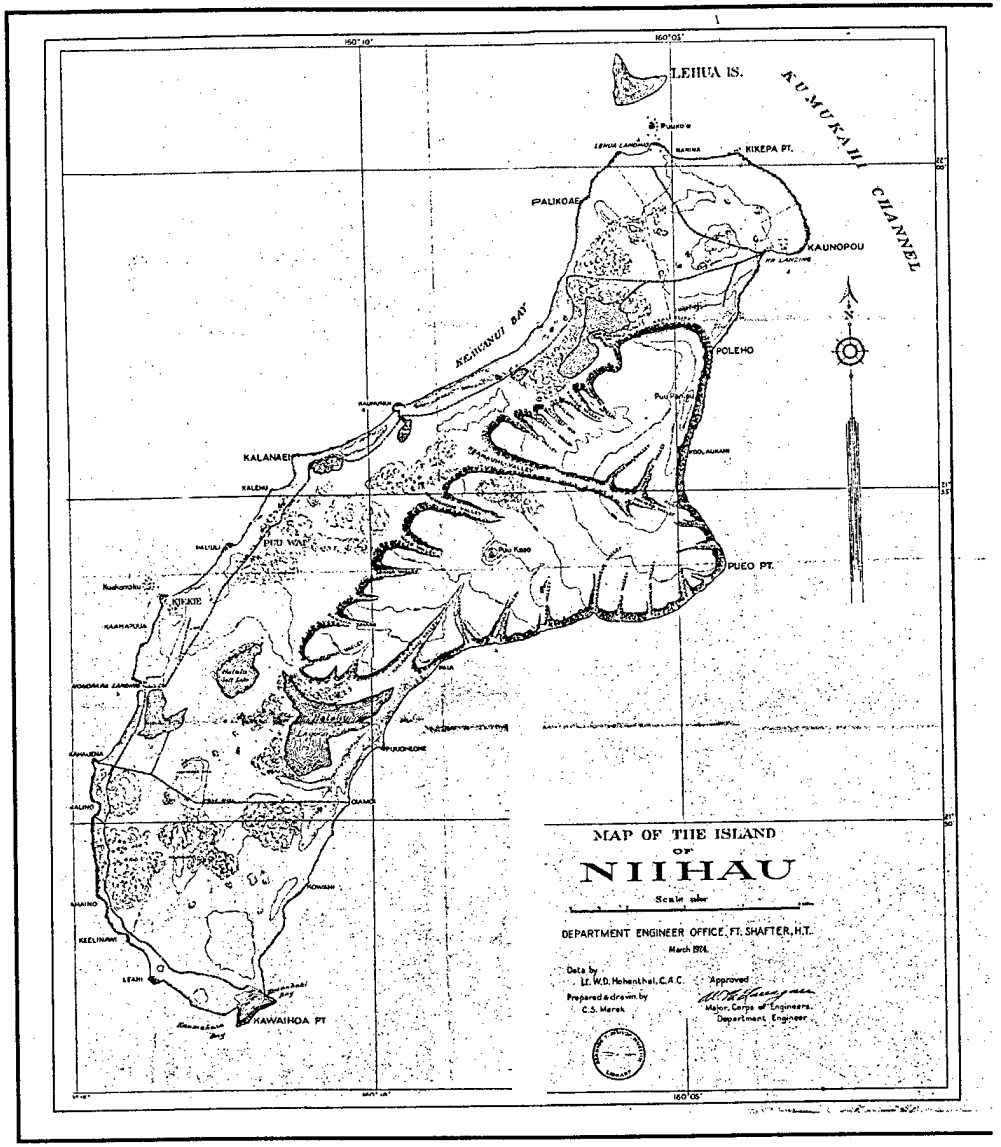
- The 1997 reconnaissance surveys conducted by Gonzalez (Jan 1997, May 1997) failed to adequately address the logistical problems of surveying and identifying cultural resources in densely vegetated areas, particularly in the central portion of the island where additional road construction and other facilities development are planned. Bishop Museum (1997) has learned from years of working in densely vegetated areas in Hawaii and elsewhere in the Pacific that serious and costly project delays can occur if unanticipated cultural resources are identified after construction has begun. It is essential that inventory surveys are appropriately designed to include brush clearing and subsurface testing in selected sampling corridors in all areas where vegetation obscures ground visibility. It is the only way to avoid or minimize complications that result when unanticipated cultural resources are identified. Please expand and clarify what steps will be taken to more adequately identify, evaluate, and treat historic properties in the APE.

Thank you for the opportunity to comment on the draft EIS.

Sincerely,

Deborah I. Olszewski, Ph.D., Chairperson
Department of Anthropology

Hartzell/BM/Memo/NAVYPMRF.WPD



DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0953
23 OCT 1998

Dr. Deborah Olszewski
Department of Anthropology
Bishop Museum
1525 Bernice Street
Honolulu, HI 96817-0916

Dear Dr. Olszewski:

Thank you for your comments regarding cultural resources impacts in the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

1. PMRF/Main Base

As described in Section 3.1.2.3 of the EIS, the Restrictive Easement Area (REA) does contain potentially eligible resources. However, as described in Section 4.1.2.3, the proposed activities in the REA, including any potential fires or mishaps, even when added to the potential effects of existing agricultural operations, would not affect these potentially eligible resources. Section 106 consultation was successfully completed for the REA as part of environmental compliance activities for the Strategic Target System launches. The conclusion of that consultation process was that there was no adverse effect to cultural resources in the REA. (See attached letter.) Similarly, we have begun Section 106 consultation for this proposed activity; see the letter in Appendix K.

2. Kamokala Magazines

All of Section 3.1.1.4, of which Section 3.1.1.4.1 is a part, describes cultural resources at PMRF Main Base.

3. Niihau

The proposed ground-disturbing activities on Niihau will occur on only a very small portion of the 72-square-mile island. Niihau elders assisted the Navy in identifying areas where Navy activities could occur. Cultural and natural resource surveys have been conducted with Niihau residents in these areas. Within these areas, as specific siting activities proceed, more detailed surveys will be conducted.

We will propose to the State Historic Preservation Officer that the following procedure be included in a Memorandum of Agreement. Historic resources discovered as a result of field surveys will be investigated and evaluated in terms of NRHP eligibility criteria. A qualified archaeologist acceptable to the landowner would assist Niihau elders in monitoring the siting areas during construction and all ground disturbing activities. When these evaluations have been made, appropriate measures would be taken to mitigate impacts to those resources or properties considered eligible. Mitigation measures could include moving the proposed construction to another site where there would be no effect to cultural resources. We understand that this approach could result in construction delays.

The leaders of our country must make many difficult decisions concerning how and where to conduct activities that will provide us with a strong defense. PMRF already conducts many testing functions vital to our national defense. The EIS is analyzing the environmental impacts of enhancing its capabilities to perform testing of missile systems to protect our armed forces and allies.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0196

JOHN WAIHEE
GOVERNOR OF HAWAII

WILLIAM W. PATY, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

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HISTORIC PRESERVATION DIVISION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

REF-HP:STY

Robert F. Shearer
Chief, Environmental and Engineering Office
Department of the Army
USASDC-Huntsville
P.O. Box 1500
Huntsville, Alabama 35807-3801

DOC NO: 4712
LOG NO: 1809W

Dear Mr. Shearer:

SUBJECT: Draft- E.I.S. for the Strategic Target System
(February 1992) U.S. Army SDC
KTF-PMRF
Mana, Waimea, Kaua'i

Thank you for submitting the DEIS on your Strategic Target System project on February 21, 1992. The pad is already in place, and the additional infrastructure which will be built will include a possible subsurface fiber optic line and a few buildings. The area has already had its land surface extensively disturbed, and archaeological work to date indicates no significant historic sites are present.

Thus, as the federal agency responsible for this project your DEIS should make a effect determination on significant historic sites. As we did in your EA, we would agree with your "no adverse effect" determination on significant historic sites if all project elements that will disturb relatively unaltered land surfaces will undergo subsurface testing prior to construction to cover the possibility of sites being present and if significant historic sites are found, then appropriate mitigation will occur in accordance with your contingency plan.

We do have some comments and corrections in reviewing this DEIS:

1. Under Section 3.5 Cultural Resources, page 3-27, the Nohili Dune which is a traditional historic place, is eligible for inclusion in the National Register of Historic Places. Your wording should reflect the dunes as traditional cultural property. The Nohili Dune is located just behind the launch pads at KTF.

This has been discussed in the EA for STARS and EDX (USASDC) and should be stated in this section. We are reviewing the draft document on this traditional cultural property now.

2. On page 3-28, archaeological testing has occurred in various areas within KTF, and some deposits were found near bore holes #3 and #4. We do not use the wording "negligible subsurface findings". Should this project have impact in this area, additional archaeological subsurface testing would be done to determine the extent of the deposits.

3. Under this section, additional archaeological reports have been done which should be synthesized and included in the FEIS. The reports are: Droliet (1991?), Yent (1991), Shun (n.d.), Walker and Rosendahl (1990), Jones (1992), Leidemann and Kirhinsmi (1990), Smith (1990), Douglas (1990), and Schiltz (n.d.).

4. Under Section 4.5 Cultural Resources, page 4-30, your DEIS mentions Fire (4.5.1.2), but nothing is mentioned about what will be done if a fire does occur in the dune area. Previous fires at KTF were extinguished by dousing the sand on top of the fire, this practice should be avoided. The best mitigation for historic site protection may well be to let the fire burn itself out. The FEIS should describe mitigative fire control measures during a fire. We agree with the postburn archaeological survey.

   All discoveries should be treated under NAGPRA, unless an MOA (the PMRF's draft Burial Treatment Plan) is signed. You should be aware under NAGPRA, all work in the area must cease for 30 days, and a letter written immediately from the Base Commander to the OHA and Hui Malama I Na Kapuna O Hawaii Nei.

You have set-up a contingency plan for mitigation should significant historic sites or burials be discovered. This is not in accordance with NAGPRA. We believe the following steps should be included in the plan:

1. All work in the area would be stopped, no further disturbance should take place until the situation is assessed. Human remains should be covered and the site area stabilized.

2. Consultation with all pertinent parties (KTF, DOE, U.S. Navy Archaeologists, SHPO, and appropriate Hawaiian groups) shall occur to determine the appropriate form of mitigation (data recovery/preservation).

9-184

Robert F. Shearer
Page 3

If you have any questions regarding this matter, please contact Ms. Nancy McMahon our staff archaeologist for the County of Kaua'i at 587-0006.

Very truly yours,

WILLIAM W. PATY
Chairperson and State
Historic Preservation Officer

cc: Rob Hommon, US Navy Archaeologist
OHA (fax)
Kaua'i Island Burial Council
Tirzo Gonzalez, Advance Science Inc.
Advisory Council, Western Region

NM:sty

P-W-0199

REPUBLICAN WOMEN'S CLUB OF KAUAI
P.O. BOX 3161, PRINCEVILLE, HI 96722
808-826-1107 FAX 826-9057

Ulla Heyn,
President

Harriet Schimmelfennig
1st Vice President

Melinda J. Nesti
2nd Vice President

Betty Measel
3rd Vice President

Mary W. Schulz
Recording Secretary

Pat Beck
Corresponding Secretary

Joyce Parnell
Treasurer

Karen Clifford
Parliamentarian

April 24, 1998

Commanding Officer
Captain Bowlin
Pacific Missile Range Facility
P.O. Box 128
Kekaha, HI 96752

Dear Captain Bowlin,

The Republican Women's Club of Kauai fully supports the range enhancement of the Pacific Missile Range Facility at Barking Sands to accommodate the Ballistic Missile Defense testing as described in the draft Environment Impact Statement dated April 3, 1998. This support was affirmed by a unanimous vote at the April 1998 meeting held on April 21, 1998.

Sincerely,

Ulla M. Heyn

Ulla M. Heyn
President

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0955
23 OCT 1998

Ms. Ulla M. Heyn
President
Republican Women's Club of Kauai
PO Box 3161
Princeville, HI 96722

Dear Ms. Heyn:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support on behalf of the Republican Women's Club of Kauai for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0199

9-185

American Lung Association
of Hawaii
245 N. Kukui Street
Suite 100
Honolulu, HI 96817-3951
Fax: (808) 537-5971
Phone: (808) 537-5966

When You Can't Breathe, Nothing Else Matters®

Founded in 1904, the American Lung Association includes affiliated associations throughout the U.S., and a medical section, the American Thoracic Society.

P-W-0202

AMERICAN LUNG ASSOCIATION®
of Hawaii

Date: 22 April, 1998

To: Ms. Vida Mossman
Pacific Missile Range Facility
PO Box 128
Kekaha, Kauai, HI 96752-0128

RE: Draft Environmental Impact Statement (DEIS) for the Pacific Missile Range Enhanced Capability project.

Thank you for the opportunity to provide comments on the above referenced DEIS. We have attempted to summarize, as much as possible, our concerns, starting with the length and complex presentation of this DEIS.

1. ***Comments regarding excessive wordiness.*** The intent of the EIS process is to provide, in readable English, a concise analysis of the impacts of a given project. There is, as you may be aware, a page limit that appears to have been needlessly exceeded in the case of this project. We found the DEIS to be excessively technical and verbose with regards to air quality.

   A case in point is the air quality section 3.1.1.1.1. (Region of Influence {Air Quality – PMRF/Main Base}). These six paragraphs discourse on air pollution without providing reference to the significance of these pollutants or a reference to the section of the DEIS (4.1.1.1.) where this discussion does occur. The introduction should only address pollutants expected to be generated by the project, or air quality problems that may be exacerbated by the project.

2. **Comments regarding contaminant analysis and modeling: general issues.** We understand that the expansion project involves a complex and varying assortment of activities, including potential missile launches, construction of facilities and possibly restricted information, however a table indicating the conservative estimate (e.g., the highest possible number), or the potential range, of launches of each type of missile, would have greatly helped in determining the significance of tables such as 4.1.1.1.1: Exhaust products of typical missiles launched from PMRF.

9-186

For instance, if only one Vandal missile is expected to be launched per year, then approximately 50 pounds of lead would be emitted in the exhaust (according to table 4.1.1.1.1.). However, if the actual launch rate for this missile type is one per month, then the emissions may account for 600 pounds of lead being released. Since the form of lead is not revealed by the information provided, we will assume that this is particulate, inorganic lead. Inorganic lead is a potent human neuro- and renal toxicant with the primary route of exposure being inhalation of contaminated dusts.

Additionally, the Regional Climate section (3.1.1.1.2.1.) does not provide rainfall data for the PMRF/Main Base location, so it will be assumed that the facility lies in the rain shadow of Mt. Waialeale and therefore experiences very low rainfall – in other words, it is generally dry and relatively dusty. Therefore, the particulate lead may be assumed to be deposited predominantly near the launch site (refer to page 4-3, "the highest volume of exhaust [will] be at or near ground level") on exposed soils or paved surfaces.

Lead accumulates in the environment and because of a very long half-life in the body, it tends to accumulate in people as well. Particulate lead depositions may expose workers at contaminated sites via the inhalation of dusts. These workers then take home their dusty clothing and expose their families. Lead is particularly hazardous for children under the age of six years old.

The controls described on page 4-32 of section 4.1.1.7.1.1. Launch Operations, would not be effective to limit exposure to this type of air borne hazard.

The statement "(c)oncentrations are expected to reach undetectable levels by the time the plume reaches the boundaries of the ground hazard area..." is misleading with respect to lead. Exhaust (combustion) products such as carbon monoxide and carbon dioxide will certainly be diluted and eventually broken down, but lead will simply deposit on surrounding surfaces or be carried off-site by winds. Lead does not decompose, regardless of the exhaust temperature and is not biodegraded, photodegraded or hydrolyzed.

3. **Comments regarding other issues.**
   - 3.1. We are surprised that some discussion was not devoted to the potential air quality impacts of fires occurring as a result of the enhanced capability activities. For instance, how many additional fires would be expected? How rapidly can suppression activities occur? What locations would be impacted by fires and the resulting air contaminants? Also, the heat of brush fires is usually sufficient to lift surface soils (dusts), if those soils have been contaminated by previous rocket launches, e.g., by lead deposits, then this contamination will also be spread. How will this issue be addressed? Paving? Clearing? Irrigation?
   - 3.2. In section 2.3.1.3.1. Fixed Ground-based Target Launch Preparation, paragraph 3, it is stated that "liquid propellant for target missiles would be transported...",

but the volumes expected to be transported are not clear, nor are controls to limit loss of these materials in the event of a spill during transportation or storage. This comment includes a review of paragraph 3 of section 4.1.1.7.1.1. Pre-launch Operations. It may be helpful to reference section 4.1.1.7.2., page 4-44 (if these are the appropriate volumes) and page 4-45 and 4-46 (if these are the appropriate spill containment and control procedures).

- 3.3. While on paragraph 3 of section 4.1.1.7.1.1. Pre-launch Operations, we are curious about the meaning of the sentence, "(t)he results of the analysis determined that the area immediately dangerous to life and health (IDLH)... would be contained within KTF". IDLH concentrations have been determined for only a few chemicals (considering the number of potential air borne chemical hazards). So, what analysis are we talking about, the referenced EIS? And, to which chemical is the IDLH reference made (chemicals or compounds do not necessarily have the same IDLH concentration)? Lastly, of course the extent of an IDLH atmosphere would be contained within the Kauai Test Facility (KTF), if not, it would greatly surprise this organization to see the facility permitted. This is another example of a paragraph that contains irrelevant information.
- 3.4. On page 4-42, section 4.1.1.7.2.1. Facility Construction, we believe it would be appropriate to address dust control measures here. However, under 4.1.1.1.2. Proposed Action – Air Quality, PMFR/Main Base, no mention is made of new facility construction.
- 3.5. With regards to the statement made on page 4-47, "(t)here is currently insufficient data pertaining to small containers such as drums... (to compute) leakage or rupture rates...". We disagree, there are numerous published sources of spill and leakage rates from small containers such as drums. This information is commonly provided during 40 hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training and routinely published in environmental periodicals.
- 3.6. We are surprised by your calculation of the results of a 55 gallon spill of the liquid propellant IRFNA. We believe it would be extraordinary to reach the 2 p.p.m. TLV at 1,214 feet following the open-air release of 55 gallons of IRFNA. You may want to recheck your assumptions and the calculation.

As an aside, "Green Sea Turtle" (*Chelonia mydas*) should actually be "Green Turtle."

Respectfully,

Allison M. Beale
Environmental Toxicologist
Director of Environmental Health

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0958
23 OCT 1998

Ms. Allison M. Beale
Director of Environmental Health
American Lung Association of Hawaii
245 N. Kukui Street
Suite 100
Honolulu, HI 96817-3951

Dear Ms. Beale:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

1. The Regulations implementing the National Environmental Policy Act provide suggested page limits, but these are only guidelines. Various opinions exist as to the extent of detail that should be provided in the EIS. We have attempted to strike a balance between the wide range of readers with varying levels of interest, while concentrating on areas with the greatest potential for impact. Section 4 of the EIS is the analysis of the impacts of the Proposed Action (Section 2.0) on the Affected Environment (Section 3.0).

2. Launches of missiles from PMRF are discrete events and the public and non-mission essential personnel are excluded from the ground hazard area. This prevents the individuals from being exposed to unhealthy levels of air pollutants. Soil samples have indicated lead levels in areas accessible to the public are below U.S. Environmental Protection Agency and State of Hawaii guidelines. U.S. Navy workers wear coveralls to prevent transferring any dust beyond the work site.

3.1 The occurrence of a fire, even though a remote event, would cause air quality impacts as would any other naturally-occurring fire. Prior to a launch, a Missile Accident Emergency Team (MAET), which includes fire suppression capability, is positioned at the edge of the GHA. The MAET also includes a helicopter with a water bucket airborne or on standby. As stated in Section 4.1.1.5.2 of the EIS, specific mitigation measures as a result of the Record of Decision could include frequent watering of excavated material and/or the use of soil additives to bond exposed surface soils, as well as watering vegetation surrounding the launch pad.

3.2 Section 2.3.1.3.1 has been revised to reflect the volumes and controls described in Section 4.1.1.7.2.

3.3 The analysis is from the referenced Strategic Target System Final EIS. The Immediately Dangerous to Life and Health (IDLH) guidance levels are for hydrazine and nitrogen tetroxide.

3.4 Section 4.1.1.5.2 addresses potential impacts and proposed mitigations for control of dust as a result of new construction activities. This will be considered in the Record of Decision.

3.5 Section 4.1.1.7.2.2 has been revised to state the most likely rates of leakage would be on the order of milliliters (ounces), which would be contained by the overpack containers.

3.6 We agree. However, because of the public interest in this issue, we made conservative assumptions on which to base our calculations.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain and maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0202

P-W-0205

9-188

HAWAII HOTEL ASSOCIATION
KAUAI CHAPTER

MARK HEINZELMAN, CHAPTER CHAIRPERSON
HYATT REGENCY KAUAI
1571 POIPU ROAD
KOLOA, HAWAII 96756
PH: (808) 742-1234
FX: (808) 742-5229

April 20, 1998

Vida Mossman, Public Affairs Officer
Pacific Missile Range Facility
P.O. Box 128
Kekaha, HI 96752

Re: Support of P.M.R.F.

To Whom it May Concern,

I am writing on behalf of the Board of Directors of the Hawaii Hotel Association-Kauai Chapter in support of the Pacific Missile Range Facility Resolution.

This County Council Resolution, No. 27-98 supports the enhancement of the facilities for the Pacific Missile Range Facility based on its history on Kauai and the many aspects in supporting the government and community in both economically challenging and diverse times. On behalf of the Board, we would like to demonstrate our support by recognizing the value of P.M.R.F. to the island of Kauai and the communities in which we live.

This letter will demonstrate our support for facility upgrades to a long-standing institution on Kauai. Mahalo for your consideration. Should you have any questions, please feel free to contact me .

Sincerely,

Mark Heinzelman
President
Hawaii Hotel Association-Kauai Chapter

MH/klp

c: John Isobe & Gary Baldwin, Kauai Economic Development Board

Federation Member
American
Hotel & Motel
Association

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0823
23 OCT 1998

Mr. Mark Heinzelman
Kauai Chapter
Hawaii Hotel Association
1571 Poipu Road
Koloa, HI 96756

Dear Mr. Heinzelman:

We appreciate your expression of support, on behalf of the Kauai Chapter of the Hawaii Hotel Association, for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We agree that a strong partnership with our neighbors in both technical and civic areas is beneficial to both Kauai and the larger Hawaiian community and the Navy. Congress has recognized the benefits of the technology base and extensive off-shore range area existing at PMRF in identifying it as the primary area to test the Navy's theater ballistic missile defense systems.

The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0205

P-W-0207

HALE KAUAI Ltd.
P. O. BOX 1749 / LIHUE, KAUAI, HAWAII 96766 / (808) 245-4014

April 16, 1998

Ms. Vida Mossman
P. O. Box 128
Kekaha, Hawaii 96752-0128

Dear Ms. Mossman,

Kauai cannot afford not to support PMRF. What they bring to the community reaches far beyond their base. They are an integral part of the community and show it.

Their response to community needs before - and since Iniki more so - reflect their genuine desire to be a good neighbor.

They bring hope of providing technological jobs for our future generations where in the past these have been few and far between on Kauai. I am fifth generation from Kauai and hope my children will return from the mainland once opportunities are more abundant to live on Kauai.

We need the Navy and PMRF facilities on Kauai. The more they are enhanced - the more secure Kauai's future will be.

Very truly yours,

Wayne R. Ellis
President and Chief Executive Officer

WRE/jt

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0824
23 OCT 1998

Mr. Wayne R. Ellis
President and Chief Executive
Hale Kauai Ltd.
PO Box 1749
Lihue, Kauai, HI 96766

Dear Mr. Ellis:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0207

9-189

Cellular Services
3-3277 Kuhio Highway
Lihue, Kauai, Hawaii 96766
Office 808/639-5000
Fax 808/639-5005

P-W-0208

Ameritech

9-190

April 21, 1998

Pacific Missile Range Facility
Attn: Vida Mossman, Public Affairs Officer
P. O. Box 128
Kekaha, Hawaii 96752

Dear Ms. Mossman,

As a concerned resident and businessman, I know that securing a position in the high technology marketplace is crucial to the economic survival of Kauai. A signficant part of this development revolves around the Navy's proposed upgrade and expansion of the Pacific Missile Range Facility (PMRF).

This proposed capital investment of $33 million will not only stimulate our stagnant economy, but will bring technology to PMRF necessary to fulfill its Congressional mandate as the test facility for the Department of Defense's Theater Ballistic Missile Defense project. Additionally, the modernization will allow PMRF to continue to attract such projects as NASA's Pathfinder Solar Powered Aircraft program. It is vital that PMRF remains a key Kauai employer, building upon the current 800 civilian positions with an annual payroll of $45 million.

We in Kauai's business community recognize the value of diversifying our economy with industries that will secure and strenghten our financial well-being. Being a true believer in the development that high technology industries will provide, I wholeheartedly support the Navy's proposed enhancements at PMRF.

Sincerely,

Hollis Crozier ma

Hollis Crozier
General Manager

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0825
23 OCT 1998

Mr. Hollis Crozier
Cellular Services
Ameritech
3-3277 Kuhio Highway
Lihue, Kauai, HI 96766

Dear Mr. Crozier:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0208

P-W-0209

GAY & ROBINSON, INC.
P.O. BOX 156 KAUMAKANI, HAWAII 96747-0156
PHONE: (808) 335-3133 FAX: (808) 335-6424

April 21, 1998

Vida Mossman
Public Affairs Officer
Pacific Missile Range Facility
P.O. Box 128
Kekaha, HI 96752-0128

Re: Support of Navy's Proposal for PMRF

Being President of one of the largest business' on the Westside of Kaua'i, (Gay & Robinson, Inc.), I recognize the tremendous asset the Pacific Missile Range Facility is to our community and Kaua'i.

In addition to the favorable economic impact the base has on the island, the Pacific Missile Range Facility's workforce (military and civilian alike) has been an outstanding neighbor. The life-saving rescues, disaster assistance following Hurricane Iniki, fire-fighting support, collecting new toys for Kaua'i's youngsters at Christmas, and other notable work in the community, have made the Pacific Missile Range Facility an integral part of Kaua'i.

I understand that enhancing the Pacific Missile Range Facility's capabilities will help to keep the base viable and I wholly support the Navy's proposal.

Sincerely,

E. Alan Kennett

E. Alan Kennett,
President and General Manager

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0826
23 OCT 1998

Mr. E. Alan Kennett
President and General Manager
Gay and Robinson, Inc.
PO Box 156
Kaumakani, HI 96747-0156

Dear Mr. Kennett:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0209

9-192

KAWAILOA DEVELOPMENT
dba Hyatt Regency Kauai and Poipu Bay Resort Golf Course
P.O. Box 369, Koloa, Kauai, Hawaii 96756
Phone (808) 742-6300, Fax (808) 742-7197

April 20, 1998

Ms. Vida Mossman
P.O. Box 128
Kekaha, Hawaii 96752-0128

Dear Ms. Mossman:

The Pacific Missile Range Facility is an asset on Kauai.

In addition to the favorable economic impact the base has on the island, the Pacific Missile Range Facility's workforce (military and civilians alike) has been an outstanding neighbor. The life-saving rescues, disaster assistance following Hurricane Iniki, fire-fighting support, collecting new toys for Kauai's youngsters at Christmas, and other notable work in the community, have made the Pacific Missile Range Facility an integral part of Kauai.

I understand that enhancing the Pacific Missile Range Facility's capabilities will help to keep the base viable and I wholly support the Navy's proposal.

Sincerely,

MYLES S. SHIBATA
General Manager

MSS:sg491wpd

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0827
23 OCT 1998

Mr. Myles S. Shibata
Kawailoa Development
PO Box 369
Koloa, Kauai, HI 96756

Dear Mr. Shibata:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0210

P-W-0211

HASEKO

HASEKO PROPERTY, INC.
820 Mililani Street, Suite 820 Honolulu, Hawaii 96813
Phone (808) 536-3771 Fax (808) 538-7654

April 21, 1998

Vida Mossman
Post Office Box 128
Kekaha, Hawaii 96752-0128

Dear Ms. Mossman:

As the General Partner for the owners of the Outrigger Kauai Beach Hotel, we are writing in support of PMRF.

PMRF and its 800 plus civilian employees have been involved community members, and vigilant stewards at Barking Sands for over 35 years. With an annual payroll of $45 million (the majority of which are civilian residents) it is fair to expect that like any other business PMRF needs to upgrade and modernize its business base to support and attract new programs. What is currently being proposed by the Navy is to do a $33 million "makeover" at PMRF to keep it technically capable of performing programs of national importance well into the next century, thus furthering its position as a catalyst for science and high technology on Kauai.

We are in Kauai's business community have been looking towards industries that could secure and strengthen our economic future. We strongly believe the science and technology industry would provide this opportunity through its largest high tech employer, PMRF.

Given the fact that U.S. Congress has mandated that Theater Missile Defense testing the conducted to develop a technically capable, cost-effective counter to current threat, and that this program would mean a $33 million upgrade to the future of PMRF on Kauai, we support the Navy's proposed enhancements.

Sincerely yours,

HASEKO PROPERTY, INC.
Its General Partner

Peter V. Herndon
Executive Vice President

9-193

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0828
23 OCT 1998

Mr. Peter V. Herndon
Executive Vice President
Haseko Property, Inc.
820 Mililani Street
Suite 820
Honolulu, HI 96813

Dear Mr. Herndon:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0211

A & B PROPERTIES, INC.

P-W-0213

April 22, 1998

Vida Mossman, Public Affairs Officer
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Hawaii 96752

Subject: Facilities enhancement for the PMRF
Mana, Kauai

The Pacific Missile Range Facility at Barking Sands, Mana, Kauai has been the lifeblood for 800 plus civilian employees. Many of these people reside on the westside of Kauai. Not only does this outpost have local significance but it serves an important, strategic, multi faceted function here on Kauai. It is not only important to our national security but is the impetus for scientific and other high tech opportunities.

As a major landowner on this Island, it is foremost that any and all economic development opportunities be pursued for the betterment of our communities. The 33 million dollars at stake to complete the enhancements to its detection and communications instrumentations, to construct additional launch sites, sensor facilities and storage facilities and to extend state leases are necessary to ensure that PMRF maintain its efficiency levels.

For the foregoing we strongly support the proposed improvements planned at PMRF.

Thank you.

Tom H. Shigemoto
Vice President

P.O. Box 430 • Koloa, Hawaii 96756 • Telephone (808) 335-5563 • Fax (808) 335-5428
A wholly owned subsidiary of A & B Hawaii, Inc.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0829
23 OCT 1998

Mr. Tom H. Shigemoto
A&B Properties, Inc.
PO Box 430
Koloa, HI 96756

Dear Mr. Shigemoto:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0213

Kauai Electric | CITIZENS UTILITIES
A Division of Citizens Utilities Co.

"Powering Kauai's Future"

4463 Pahee Street
Lihue, Hawaii 96766-2032
Phone: (808) 246-4300

April 21, 1998

P-W-0214

Ms. Vida Mossman
Public Affairs Officer
Pacific Missile Range Facility (PMRF)
P.O. Box 128
Kekaha, HI 96752-0128

SUBJECT: PROPOSED ENHANCEMENT AT PMRF

Dear Ms. Mossman:

The Pacific Missile Range Facility is an asset to Kauai in many ways:

1) Besides its military workforce, PMRF provides over 800 civilian jobs;

2) PMRF's workforce (military and civilian alike) has been an outstanding neighbor; and

3) PMRF is the key to our Hi-Tech future.

PMRF has an annual payroll of $46 million dollars, the majority of which are for civilian residents of Kauai. While it is obvious that this has a significant economic impact, it is less obvious that PMRF has other significant economic impacts that directly impacts all of us. PMRF is one of KE's largest customers and therefore represents a significant portion of our revenues. If the viability of PMRF is compromised and the facility is closed, the net impact would be a proportionate increase in rates at a time when the island can least afford it. This scenario is aggravated even more when you consider that a significant portion of the workers who lose their jobs would leave the island in search of jobs. This also impacts our forecast of growth and therefore the rates. Therefore, it is important that we not only keep, but enhance the viability of PMRF and insure it remains part of our customer base.

PMRF has always supported the residents and businesses of Kauai. Life saving rescues, fire fighting support, collecting toys for children, and most notable the support it provided following Hurricane Iniki. PMRF is open to the public to enjoy the beach, ocean, and facilities such as the theater and bowling alley. The service they provide to Kauai and its children is invaluable and should be a model for all communities.

An Equal Opportunity Employer

The previous examples are assets that PMRF currently provides and does a good job at it! However, Kauai's economy is still begging for more help. Once again, PMRF is a key player for Kauai. Kauai is approximately the same size as Oahu but has only 6% of their resident population. Kauai needs to focus on providing an industry and jobs that will keep this lifestyle that the residents cherish. The high technology industry meets that criteria and PMRF is the only Hi-Tech employer on the island. By expanding on this role, PMRF will provide high skilled jobs so our children can remain on Kauai.

KE supports enhancing PMRF's capabilities as it will not only keep the base viable, but act as the strategic catalyst for our future.

Very truly yours,

ALTON H. MIYAMOTO
Manager, Strategic Planning

AHM:wk[f:\alton\PMRF support ltr.doc]

cc: KEDB

9-196

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0 8 3 0
2 3 OCT 1998

Mr. Alton H. Miyamoto
Manager
Strategic Planning
Kauai Electric
4463 Pahee Street
Lihue, HI 96766-2032

Dear Mr. Miyamoto:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0214

Wilcox Health System

3420 Kuhio Highway
Lihue, Kauai
Hawaii 96766
(808) 245-1100
Fax (808) 245-1171

P-W-0215

April 21, 1998

Vida Mossman
Public Affairs Office
Pacific Missile Range Facility
PO Box 128
Kekaha, HI 96752

Dear Ms. Mossman:

I write this letter in support of the proposed enhancements of the Pacific Missile Range Facility (PMRF) in support of the Theater Missile Defense Program. PMRF has a long history and outstanding 35-year track record on Kauai. They not only have demonstrated stewardship for the environment at PMRF but have also shown a commitment to the entire island. Military personnel and civilian workers alike have volunteered for numerous charitable causes, and will be long recognized for their immediate and effective response following Hurricane Iniki.

Last month, I personally, along with the hospital administrative team, visited and toured PMRF. The experience reconfirmed our commitment to the further development and upgrading of the facility. Wilcox Health System represents over 1000 employees, physicians, board members and volunteers who have all felt the effects of our depressed economy. PMRF provides a continued economic base for our community, especially for West Kauai.

The bottom line is that PMRF has well proven itself as a responsible and caring neighbor. We fully support its continued efforts to upgrade and modernize its services to support new services. Please feel free to call upon me if you need further information or assistance.

Sincerely,

Larry K. Mangold
President/Chief Executive Officer

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0 8 3 1
2 3 OCT 1998

Mr. Larry K. Mangold
President/CEO
Wilcox Health System
3420 Kuhio Highway
Lihue, Kauai, HI 96766

Dear Mr. Mangold:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0215

9-197

P-W-0217

POST OFFICE BOX 68
ELEELE, KAUAI, HAWAII 96705

TELEPHONE: (808) 335-3145

April 21, 1998

Ms. Vida Mossman, Public Affair Officer
Pacific Missile Range Facility
PO Box 128
Kekaha, HI 96752

Dear Vida:

We at Big Save, Inc. support the proposed enhancement of the facilities for the Pacific Missile Range Facility.

PMRF is an asset for the island of Kauai. This facility has played an important part in the economic stability of our island. With the tough economic times we face on Kauai we now need PMRF even more to insure our economic survival. Therefore, please support the enhancement to the Pacific Missile Range Facility.

Sincerely,

BIG SAVE, INC.

Charles Kawakami
President

KAUAI'S OWN...VALUE IS THE BIG SAVE WAY

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

9-198

IN REPLY REFER TO:
5090
Ser 00/ 0832
23 OCT 1998

Mr. Charles Kawakami
President
Big Save, Inc.
PO Box 68
Eleele, Kauai, HI 96705

Dear Mr. Kawakami:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0217

P-W-0226

BELLES GRAHAM
PROUDFOOT & WILSON
ATTORNEYS AT LAW

MICHAEL J. BELLES
MAX W.J. GRAHAM, JR.
DAVID W. PROUDFOOT
DONALD H. WILSON

Federal I.D. No. 99-0317663

ASSOCIATE
PAMELA P. RASK

OF COUNSEL
JERILYNN ONO HALL

WATUMULL PLAZA
4334 RICE STREET, SUITE 202
LIHUE, KAUAI, HAWAII 96766-1388

TELEPHONE NO: (808) 245-4705
FACSIMILE NO: (808) 245-3277
E-MAIL: mail@kauai-law.com

April 21, 1998

Ms. Vida Mossman
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

Dear Ms. Mossman:

PMRF and its 800 plus civilian employees have been involved community members, and vigilant stewards at Barking Sands for over 35 years. With an annual payroll of $45 million (the majority of which are civilian residents) it is fair to expect that like any other business PMRF needs to upgrade and modernize its business base to support and attract new programs. What is currently being proposed by the Navy is to do a $33 million "makeover" at PMRF to keep it technically capable of performing programs of national importance well into the next century, thus furthering its position as a catalyst for science and high technology on Kauai.

We in Kauai's business community have been looking towards industries that could secure and strengthen our economic future. We strongly believe the science and technology industry would provide this opportunity through its largest high tech employer, PMRF.

Given the fact that U.S. Congress has mandated that Theater Missile Defense testing be conducted to develop a technically capable, cost-effective counter to current threat, and that this program would mean a $33 million upgrade to the future of PMRF on Kauai, we support the Navy's proposed enhancements.

Very truly yours,

BELLES GRAHAM
PROUDFOOT & WILSON

David W. Proudfoot

DWP:seo
cc: Kauai Economic Development Board

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0963
23 OCT 1998

Mr. David W. Proudfoot
Belles, Graham, Proudfoot & Wilson
4334 Rice Street
Suite 202
Lihue, Kauai, HI 96766-1388

Dear Mr. Proudfoot:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0226

9-199

P-W-0228

Kauai North Shore Business Council
P.O. Box 1481
Hanalei, Kauai, Hawaii 96714
Phone: 808-826-3370
Fax: 808-826-9592

Gentlemen:

I am Michael Loo, president of the Kauai North Shore Business Council. Our community is distant by road, but physically very proximate to operations at the Pacific Missile Range Facility at Mana. During our most recent board of directors meeting; we voted unanimously, to support the U.S. Navy's efforts to improve and enhance the operational and testing capabilities of PMRF. We feel that any scale would lean heavily to supporting the Navy's enhancement plans as they outweigh any negative impacts which the plan would bring to Kauai and Niihau by a large margin.

There is a need to support:
a) maintaining our national defense systems at the highest level possible.

b) the more than 800 jobs currently in place at the base.

c) the programs that will bring more permanent, well paying jobs to the base, providing our children with employment opportunities not available anywhere else on the island.

d) plans that will solidly anchor PMRF's position as the foremost ocean testing range in the world, because our island and the State of Hawaii have since World War II, been and will continue to be dependent on military spending to supplement our economies.

e) the programs and facilities that have already spawned peripheral high tech and community benefits to Kauai, and which will allow further development opportunities.

e) the good neighbor that the Navy has been.

In our view there appears to be few significant negative environmental impacts that could not be mitigated. We feel that the Navy has been a good steward of the land and the sea, and that the Navy and its contractors have more than adequately demonstrated that they care and are concerned about our aina and the people of this community. They have made the base available not only to their local community, but even those like us who live and work on the north shore. They have fostered programs that encourage bonding of the military with the community. The bottom line; they have been good neighbors and we should treat them as such.

Thank you for the opportunity to present our observations and comments. We hope that we have added sufficiently to the side of the scale favoring the project so that you will decide to proceed with the project as soon as possible.

Very Truly Yours,

Michael Loo
President

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0965
23 OCT 1998

9-200

Mr. Michael Loo
Kauai North Shore Business Council
PO Box 1481
Hanalei, Kauai, HI 96714

Dear Mr. Loo:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0228

P-W-0229

CO B
TD R
PAO

Princeville Resort
KAUAI

April 7, 1998

Governor Ben Cayetano
State Capitol, 5th Floor
State of Hawaii
Honolulu, Hawaii 96813

Dear Governor Cayetano:

We are writing to request your continued funding support for the partnership between Kauai Economic Development Board and the Pacific Missile Range facility at Barking Sands on Kauai. We understand that the funds allocated for this joint marketing effort have yielded great successes over the past several years and that the State of Hawaii is the beneficiary of new business generated by these efforts. The economy of the County of Kauai remains in dire need of any kind of assistance and maintaining and possibly increasing the over 800 well-paid civilian jobs at PMRF is extremely significant.

The exposure generated from KEDB's efforts and PMRF's programs are attracting other businesses and we hope that these efforts will be the incubator for a new "clean industry" for Kauai. We respectfully request that you continue providing full funding in 1998.

Sincerely,

Michael Y.M. Loo
Director
Real Estate & Development

Loo\Cayetano:bgf

cc Gary Baldwin, Kauai Economic Development Board
Capt. Jim Bowlin, Pacific Missile Range Facility

Princeville Corporation
P.O. Box 3040 • Princeville, Kauai, Hawaii 96722 • Telephone: 808 / 826-3010 • Fax: 808 / 826-9592

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0966
23 OCT 1998

Mr. Michael Loo
Director
Real Estate and Development
Princeville Corporation
PO Box 3040
Princeville, Kauai, HI 96722

Dear Mr. Loo:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0229

9-201

P-W-0233

Oceanit Laboratories, Inc.
environmental & coastal engineering services • research & development

1 May 1998

Ms. Vida Mossman
Pacific Missile Range Facility
Post Office Box 128
Kekaha, Kauai, Hawaii 96752.0128

SUBJECT: Pacific Missile Range Facility (PMRF) Enhanced Capability Environmental Impact Statement (EIS) – Public Hearing, Saturday, 25 April 1997; Written Testimony

Dear Ms. Mossman:

Attached please find the subject Written Testimony, as presented by the undersigned at the Public Hearing, held Saturday, 25 April in Waimea, Kauai.

If you have any questions regarding the attachment, please do not hesitate to contact me to discuss. Thank you.

Sincerely,

OCEANIT LABORATORIES, INC.

Patrick K. Sullivan, Ph.D., P.E.
President

Attachment:

1100 Alakea Plaza • 1100 Alakea Street, 31st Floor • Honolulu, Hawaii 96813
TEL: (808) 531-3017 • FAX: (808) 531-3177 • E-MAIL: oceanit@oceanit.com • URL: http://www.oceanit.com

Oceanit Laboratories, Inc.
environmental & coastal engineering services • research & development

9-202

Saturday, April 25, 1998

TESTIMONY
FOR
PACIFIC MISSLE RANGE FACILITY (PMRF)
ENHANCED CAPABILITY ENVIRONMENTAL IMPACT STATEMENT (EIS)
by
Dr. Patrick K. Sullivan, P.E.

My name is Patrick K. Sullivan and I am testifying today on behalf of Oceanit Laboratories, Inc. as its President. My testimony supports the findings of this Environmental Impact Statement (EIS) that there is no significant impact.

Oceanit Laboratories, Inc. is a Hawaii based company started in the early 1980s that employs approximately 50 people. Oceanit's areas of expertise/services include environmental/coastal engineering as well as research and development.

There are three areas that I would like to comment on regarding the aforementioned EIS: defense requirements, economic impact, and environmental issues.

Defense: Although you will hear more about defense issues, it is important to recognize that PMRF provides a unique value-added capability to address TMD and BMDO issues. This is largely attributed to PMRF's unique setting and existing infrastructure.

Economic: Although simply said, this represents jobs; however, it goes much deeper. It also represents the quality of jobs and opportunities to produce value-added technology based products, which is something we do at Oceanit. For example, we produce Cigua-Check™, now available in stores throughout Hawaii to monitor ciguatera in fish.

Environmental: Oceanit prepares EISs as part of our business. We didn't have anything to do with the preparation of this EIS; however, we believe that it adequately discloses environmental issues.

In closing, I would like to thank you for the opportunity to provide testimony in favor of proposed enhanced capability at PMRF and the subject EIS.

1100 Alakea Plaza • 1100 Alakea Street, 31st Floor • Honolulu, Hawaii 96813
TEL: (808) 531-3017 • FAX: (808) 531-3177 • E-MAIL: oceanit@oceanit.com • URL: http://www.oceanit.com

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0833
23 OCT 1998

Dr. Patrick K. Sullivan
Oceanit Laboratories, Inc.
1100 Alakea Street
31st Floor
Honolulu, HI 96813

Dear Dr. Sullivan:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. PMRF is proud of its safety record and stewardship of the environment in its more than 35 years of launching and testing missile systems. We have been able to conduct our programs over the years with very little environmental impact, and our goal is to continue to do so. We recognize that many who have opposed PMRF programs have claimed that there would be unacceptable environmental impacts as a result. We do not believe this has been borne out.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0233

P-W-0239

ASSOCIATION OF FMF COMBAT MEDICAL PERSONNEL

Hawaiian Area Director
A.E. Gene Bullock
P.O. Box 1022
Kalaheo, Kauai, Hi. 96741
808-332-7187

Captain James Bowlin
Commanding Officer PMRF
Barking Sands, Kauai, HI.

Captain Bowlin:

This association goes on record as in full support of the EIS on the enhancement of capabilities for PMRF to develope a defense system against TBM weapons. Our membership is made up from Navy Doctors and Hospital Corpsmen trained and have seen service on the battle field with Fleet Marine Forces. Each of us are combat veterans having served our time in Hell and War. We know the results of being out matched in the field of battle. We have patched up our bleeding, licked our wounds and tagged our dead. These TBM weapons can and have did a number on us in the past. We know those people out there don't really like us and we know thay have these weapons. As long as we send our military into "Harms Way" they deserve the finest protection we can provide.

We trust that you and PMRF will be able to start on this vital project in the very near future.

Respectfully:

A.E. Gene Bullock
Hawaiian Area Director

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0834
23 OCT 1998

Mr. A. E. Gene Bullock
Hawaiian Area Director
Association of FMF Combat Medical Personnel
PO Box 1022
Kalaheo, Kauai, HI 96741

Dear Mr. Bullock:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0239

9-204

P-W-0240

MAUI ECONOMIC DEVELOPMENT BOARD, INC.

May 12, 1998

Ms. Vida Mossman
Public Affairs Officer
Pacific Missile Range Facility
Post Office Box 128
Kekaha, Hawaii 96752

Dear Ms. Mossman:

The Maui Economic Development Board is highly supportive of the proposal to improve and enhance operations of the Pacific Missile Range Facility, especially insofar as this will provide additional economic and employment opportunities on Kauai and Niihau.

We are particularly impressed by the level of support from Niihau and Kauai residents. The level of community support, despite comments from what we would term the "usual naysayers," shows the need for a project of this importance.

We would remind you of the opportunity to continue to tie PMRF activities in with the expanding capabilities of the Maui High Performance Computing Center.

MEDB looks forward to partnering with the Kauai Economic Development Board and the many entities and agencies involved in PMRF activities to attain the best possible results from this initiative.

Sincerely yours,

Robert T. Johnson

Robert T. Johnson
President/CEO

RTJ:na

590 Lipoa Parkway, Suite 103 • Kihei, Maui, Hawaii 96753 • (808) 875-2300 • FAX (808) 879-0011 • info@medb.org

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0970
23 OCT 1998

Mr. Robert T. Johnson
President/CEO
Maui Economic Development Board
590 Lipoa Parkway
Suite 103
Kihei, Maui, HI 96753

Dear Mr. Johnson:

We appreciate your expression of support on behalf of the Maui Economic Development Board for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0240

P-W-0241

CEATECH USA

Controlled Environment Aquaculture Technology, Inc.
7 Waterfront Plaza, Suite 400
500 Ala Moana Blvd. Honolulu, HI 96813
Tel: (808) 521-1801 / Fax: (808) 537-1307
ceatech@aloha.net

May 7, 1998

Vida Mossman
Public Affairs Officer
Pacific Missile Range Facility
P.O. Box 128
Kekaha, HI 96752-0128

Dear Ms. Mossman:

We have reviewed the Pacific Missile Range Facility Enhanced Capability Draft Environmental Impact Statement of 3 April 1998.

It is our opinion that the operations at the Pacific Missile Range Facility will have no impact on the operations of CEATECH Plantations or any other of our facilities.

Sincerely,

Ernest K. Dias
President

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0971
23 OCT 1998

Mr. Ernest K. Dias
President
CEATECH USA
7 Waterfront Plaza
Sutie 400
Honolulu, HI 96813

Dear Mr. Dias:

Thank you for taking the time to comment on the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement. We are pleased that you concur with our belief that there will be no impact on the CEATECH Plantations.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. We look forward to continuing to be a good neighbor to the people and businesses of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0241

9-205

P-W-0245

9-206

TESTIMONY ON THE PMRF EIS
by Ken Ka`imi Stokes

SUMMARY-- In order to fully appreciate the Environmental Impact statement for PMRF's proposed warfare exercises, ya gotta talk about the three "D's: Defense policy, document quality, and decision-making process.

On defense, we may disagree with the need for or priority of this billion-dollar expenditure, yet the Navy got Congress to write them into the budget. So, they come to us with the line: "We're just doing what Congress ordered."

On the document, we may disagree with the conclusions or highlight some glaring omissions in the analysis, yet its apparent purpose is more geared toward manufacturing community consent for this use of our land and ocean, rather than shedding any real light on the downside of their war games. I will come back to this later.

On the decison-making, we may disagree with the limitations on community participation, yet let us simply watch to see whether the Governor and Secretary of the Navy accept this draft EIS as is. That will be the signal of whether or not anyone is taking the EIS process seriously.

Why? Because this EIS is a shoddy and mean-spirited document that does not deliver on its promises of objective and comprehensive environmental and cultural assessment.

Instead, it misrepresents its own research, it provides no estimates of probability for potential disasters, and it leaves out any consideration of long-term cumulative impacts, especially regarding their intent to bathe our people (residents and military) in electromagnetic radiation (EMR). Worse is its jingoistic treatment of Hawaiian land and cultural issues, which are contained in an Appendix and a Supplemental report on Ni`ihau.

At the end of the day, it seems our Kaua`i community is "going along" with this project because we have no real choice, because it will help pay the rent for some of us, and because there is substantial propaganda pressure (including threats to our newspaper editor) to do so.

We can extend aloha to the guys and gals in uniform on and around our island, and to the expensive suits that come with the various defense contractors (actually, they probably wear aloha shirts to show their cultural sensitivity). We can mahalo the BMDO for spending money on our island, and mahalo PMRF for giving us jobs and subsidizing the Robinson's Ni`ihau operation. We can mahalo the military and our DLNR for being extremely careful what they do in our forest, on beaches and our ocean.

We can also agree that, long term, this is definitely not the direction we want Kaua`i to go.

THE DETAILS-- Now for more detailed feedback on the EIS document itself. It is easy to find fault with this document because it is far from "state-of-the-art" in its methodology and process, nor is it honest and complete in its assessment of the full impacts of the proposed training facilities and exercises.

The purpose of the document seems more slanted toward gaining community acceptance of a further incursion of military activity into their lives, rather than a candid portrayal of its ecological and cultural impacts.

This is disappointing, yet not surprising. The full-scale propaganda campaign launched by the military to manufacture consent for this project makes it perfectly clear that the EIS doesn't really matter. The project is going ahead, either way.

In any case, looking just at the EIS document itself, we find six major flaws:

1. It is not factual. The Executive Summary misrepresents the detailed findings regarding ecological ad cultural impacts. It claims very few are adverse, yet a careful reading of the detailed findings suggests otherwise. For example, "aesthetic and visual" impacts on Ni`ihau, where the EIS admits that missile launchers on Ni`ihau are "out of character." The mere presence of missile launchers and antenna, not to mention the occasional aircraft and ship-to-shore maneuvers, constitutes an adverse impact on the look and feel of Ni`ihau, regardless of the various mitigative measures (such as painting the launchers brown). Accordingly, a more honest representation of the detailed research would show many more "black boxes" ("Adverse" impacts) in the Summary Table.

2. It is not objective. Careful assessment of how the severity each impact is determind reveals a mess of subjective judgements. It claims to rely upon objective criteria and quantitative "triggers," yet none are presented. In most cases, probability estimates are not provided for a particular risk, nor is there any attempt to place a value on environmental and other non-market factors. These omissions make it difficult to more properly assess the tradeoffs involved in each proposed action. For example, what is the likely annual seal pup kill rate for each of four prospective missile launches off Tern Island, and what is the value of a successful marine preserve there... In most cases, potentially adverse impacts are merely dismissed with promises that they will be short-term, rare and-or carefully monitored.

3. It is not comprehensive. The scope of research focuses on individual facilities and events in isolation, and fails to provide any assessment of long-term cumulative impacts of overall operations of these training execrcises in the context of simulated full-scale electronic warfare. In particular, what the military calls HERP, or "hazards of electromagnetic radiation(EMR) to personnel" are analyzed for each single source, yet there is no discussion or research provided for the people-effects of long-tem "bathing" in EMR from multiple sources. Taken singly, the safety provisions for electronic warfare sites, such as clearing the area or keeping it pointed above 240 degrees, do not begin to account for the cumulative ambient impacts of EMR. Additionally, effects of missile launch activity on seals, whales and othe marine life are analyzed in terms of short-term, periodic disturbances, yet there is no consideration of the long-term efffects of the proposed ocean clearing measures on habituation choices of marine life, especially in view of their observed aversion patterns within our designated sanctuaries.

4. It is not up to professional standards. For example, the simplistic treatment of "environ-mental justice" issues would not survive peer review. A more credible analysis would recognize that PMRF on Kaua`i qualifies as an environmental justice issue precisely because it is an example of an otherwise "unwanted" facility which has been located in a disadvantaged community. It's not about how many Hawaiians might hear a missile go off or might get a job-- it's about having an "unwanted" project wrapped up in "economic development" packaging and presented as the "best deal" for the community. Additionally, as mentioned above, its lack of probability estimates and non-market valuations renders it virtually useless as a technical reference.

5. It is politically counter-productive. In dealing with Hawaiian sovereignty issues, it reflects a heavy-handed, non-reconciling attitude that cannot be helpful at a time when a broader state-wide consensus is being sought. For example, its treatment of "Land Title" issues affronts the intelligence of Hawaiians when it begs the question of whether the U.S. accepted stolen lands from the Provincial government in 1898. Additionally, it only applies legal theories regarding rights of Hawaiian individuals, which begs the question of Hawaiian rights as a people and nation. It would have been more in the spirit of the 1993 Apology Bill to simply acknowledge that the lands at Mana are part of the illegal "accession" for which the Congress apologized, and that issues of Hawaiian access and compensation remain unresolved.

6. It is propagandistic in its treatment of cultural issues. It fails to comprehend the deep cultural sense of place which renders inappropriate any such warfare facilities and exercises anywhere in this `aina. A special report on Ni`ihau culture is slanted toward considering only the economic benefits of military presence. This supplementary document was made available for sale through the Ni`ihau church and was part of a larger effort to gain support on that island,. It characterizes miltary rent and wage payments as the most promising means for sustaining the traditional Ni`ihau lifestyle, and claims resident approval of military operations as long as they are "away from the village." Moreover, it characterizes the frequent incursion of fishing charters as a more significant threat to island life! Yet, the only promise for long-term cultural preservation is seen in the ultimate withdrawal of military activities without leaving any environmental damage!

As in many such EIS exercises, the most important findings are those which focus on what we don't know. And the fact is, there is much we don't know about the ecological and cultural impacts of the PMRF operations.

This document should be rejected until it shows many more adverse impacts, until it provides probability data for each risk and valuation of each intangible, and until it takes a longer view of human exposure to EMR. Additionally, it must be rejected for its jingoistic treatment of environmental justice, Hawaiian sovereignty and Ni`ihau cultural issues.

For all of these reasons, it is hard to take the PMRF EIS seriously as an exercise in understanding. It may well be that the economic benefit to our community outweighs the risks, yet you couldn't determine that from this document.

Some of us think it is patriotic to simply have faith that the military will be careful with our precious island resources. Some of us think it is foolish.

Mahalo
Ken Ka`imi Stokes, Ho`oklpa Network, PO Box 88, Kapaa, HI 96746, (808) 821-CBOS

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0973
23 OCT 1998

Mr. Ken Kaimi Stokes
PO Box 88
Kapaa, HI 96746

Dear Mr. Stokes:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

1. The Draft EIS was prepared in accordance with the requirements of the Council on Environmental Quality Regulations (CEQ), Title 40, Parts 1500-1508; Executive Order 12114, Department of Defense Directive 6050.1 and Hawaii Revised Statutes (HRS), Chapter 343. The approach included use of an interdisciplinary team of professionals coupled with close consultation with Federal, State and local cultural and natural resource agencies, organizations and experts. Where objective criteria were available and applicable, they were used to measure, in terms of both context and intensity, the effects associated with the proposed action. Other areas, by their nature, are evaluated using a more subjective approach tailored to the specific region of influence involved. In all cases, data were gathered through a combination of literature searches, interviews, and site visits to enable meaningful conclusions to be drawn.

   Aesthetics is an area in which the degree of impact is always quite subjective. As the EIS states, some facilities which could be constructed on Niihau would be out of character with existing surroundings. However, the use of earth-tone paints for these structures would reduce the starkness of these differences and tend to blend these structures with the surrounding flora and soils. Review of these conclusions by the residents and owners of Niihau did not indicate particular concern that these structures would offer significant aesthetic effects.

   Likewise, cultural and archaeological conclusions reached in the EIS were coordinated with the Niihau residents, elders, and owners. In fact, much of the basis for our cultural analysis was based on a study, "Niihau: Present Circumstances and Future Requirements in an Evolving Hawaiian Community", researched, written, and published by the Niihau residents and an independent consultant on Native American issues.

2. Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

   The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

3. The Proposed Action is considered in conjunction with on-going fleet training exercises as well as in combination with the longer-term continued training and testing. While missile launches and other training activities have been adequately analyzed, we agree that more analysis is needed with respect to the potential for cumulative effects of EMR. This further analysis is contained in Sections 3.1.1.7.2.3, 4.1.1.7.1.2 and 4.1.1.7.2.5.

4. Environmental Justice effects were evaluated in compliance with CEQ's guidelines as a result of Executive Order 12898. Examples of measures taken to ensure awareness and understanding of the proposal and any potential effects included informational meetings with the residents of Niihau using models, drawings, and providing answers to questions of the community in their devised format and setting. Residents were also invited to PMRF to observe the launch of a missile similar to those proposed for Niihau. Approximately 40 Niihau residents accepted this invitation and did observe the launch.

5.&6. Regarding Hawaiian sovereignty issues, we hope you understand that no affront was intended.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain and maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0245

9-207

9-208

Date: May 13, 1998
To: J.A. Bowlin, PMRF Commanding Officer
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Hawai'i 96752-0128
From: Kyle Kajihiro, AFSC Hawai'i
Subject: Comments on PMRF Enhanced Capabilities DEIS

Aloha. My name is Kyle Kajihiro, a Program Coordinator with the American Friends Service Committee (AFSC) Hawai'i Area Program. AFSC is a Quaker based peace and justice organization. The AFSC has deep and abiding faith in the power of non-violence to resolve conflict. Therefore, we oppose this proposed expansion of U.S. war-making capacity.

War and the development of war technology, do not comprise an economic development strategy. It should never be promoted as such. Proponents of the PMRF expansion argue that economic development for Kaua'i and Ni'ihau residents should be a reason to consider the proposed expansion. A community based economic development would consider all possible economic alternatives, with a preference for what is the best for the community and region. In the case of Hawai'i, appropriate economic options should be based on the advancement of Hawaiian culture and the preservation of the environment. It is unfair that Kaua'i and Ni'ihau residents have been forced to choose between poverty or increased dependency on the military appropriations.

Please include a breakdown of the estimated budget for the Theater Ballistic Missile Defense Program Acquisition cost of $462.7 million in FY 1998 and $418.9 million in FY 1999. What will be spent on construction labor? How much will be spent on support services contractors? How many of the projected jobs will be permanent versus temporary? The report admits that "the overall (employment) impact ... will be slight." How much of the budget will be spent on hardware such as test weaponry and delivery systems? We are concerned that the majority of these weapons will be stockpiled and then demolished as part of the tests, without making lasting contributions to our local economy.

Which manufacturers will receive contracts for the production of the test weaponry, electronic guidance and tracking systems, etc.? Please disclose the list of weapons and equipment contractors, what they will be contracted to produce, and the amounts of their contracts. This information is necessary in order to evaluate the full economic impact of these proposed expenditures.

Also, in order to assess the true impact of this project, it is necessary that the public be able to distinguish between a public relations angle and the facts of the situation. Please disclose any documents and communications that pertain to public relations and strategies of public persuasion regarding the PMRF expansion. This would include any media releases and media strategies that were created or initiated by military personnel. Who is the public relations officer for this process? What contacts has this person had with non-media groups in the community? What is the public relations budget for this EIS process?

Will there be a mechanism for the public to evaluate the process of development as well as the ongoing operations? If the project fails to fulfill projected benefits for the community, or if the project impact exceeds that which is anticipated in this DEIS, will the public have an option to cancel the project?

Who are the "specialists" and "experts" employed in the data gathering for this DEIS? What are their credentials to evaluate the situation in Hawai'i, especially related to the cultural significance of areas? Consultants who have made careers of contracting with developers or the military have credibility problems within many sectors of the community. It can be argued that there are conflicts of interest when career contract scientists and cultural consultants are retained by the developer without independent oversight. Please disclose the list of all consultants employed in the preparation of this report, their credentials, the summary of their contracts. Please include the technical reports in the EIS.

There are discrepancies. For example on page 3-36 a Cultural Resources Management Overview Survey is cited, but this document does not appear in the references. Where can the public review this information?

The DEIS states on page 3-53 that "There is presently no radioactive material on PMRF or any of the support facilities." Does this statement include spent nuclear material such as spent uranium used in missile casings and in weighting warheads? Have these materials been used in the past? Will these types of spent nuclear materials be used in the future? If so, what kinds, how much, and what would be their potential hazards?

Will the enhanced facilities (launch sites as well as support facilities) enhance the ability to conduct anti-missile defense tests for short range missiles? If so, will short term missile defense systems be part of the proposed activity at PMRF? If so, please disclose the plans for short range missile defense systems, including the kinds of missiles and technology to be tested and the frequency of the tests.

If there are plans to conduct short range missile defense tests at PMRF, will this enhance Hawai'i's ability to train aircraft carrier crew and fighter squadrons? Will the enhanced PMRF facility enable Hawai'i to homeport a nuclear aircraft carrier? Is the enhanced PMRF facility part of a plan to homeport a nuclear aircraft carrier at Pearl Harbor.

Finally, it is unclear what criteria or parameters the Navy is using to evaluate the alternatives. Why is "Reduced capability" not an alternative for study? What would make the Navy choose to reduce the weapons testing capacity of the facility? If the proposed expansion is declined, what will happen to the appropriation for the project?

Thank you for this opportunity to testify and for your attention to our concerns.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0977
23 OCT 1998

Mr. Kyle Kajihiro
AFSC-Hawaii
2426 O'ahu Avenue
Honolulu, HI 96822

Dear Mr. Kajihiro:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement (EIS). While we acknowledge the economic base of much of the support for the proposed action, the Navy does not make any representations that it will result in substantial economic benefits to the people of Kauai or Niihau, or to the Hawaii economy in general.

The scope of this EIS is to evaluate the environmental effects of the proposed enhancements of PMRF to support Theater Ballistic Missile Defense (TBMD) testing. It is not intended to provide a programmatic analysis of the TBMD program. The environmental effects of the broader Theater Missile Defense (TMD) Program were evaluated in the Theater Missile Defense Programmatic EIS. Consequently, inclusion of information concerning programmatic costs and expenditures, identification of production contractors or contract details is not appropriate or essential to perform the required environmental analysis of the proposed action. The socioeconomic impacts of construction, support services, and other related activities that would support testing at PMRF are discussed in Sections 4.1.1.10, 4.1.2.9, 4.2.1.10, 4.5.1.9, and 4.5.2.9.

A discussion of public relations strategies or activities relating to the Proposed Action is not appropriate for inclusion in the EIS. Vida Mossman is the PMRF public affairs officer. You may contact her for more information concerning the proposal or to obtain copies of any press releases or other information released to the public.

A list of the preparers of the EIS, with their credentials, is included in Chapter 5 of the Draft EIS. However, a discussion of the contractual arrangements is not appropriate in the EIS. Nor is it possible to include technical reports in the EIS, which, in accordance with regulatory guidance of the Council on Environmental Quality, should be a concise document that focuses on the important environmental issues, not an encyclopedic treatise.

Reference to the Cultural Resources Management Overview Survey has been included in Chapter 10 of the EIS. Its omission in the Draft EIS was an oversight.

Section 3.1.1.6.2.11 has been changed in the EIS to reflect there is currently no radioactive material on PMRF or any support facilities that requires regulatory licensing. The only exception is those unregulated sources found in household smoke detectors. Depleted uranium was used at one time for missile casings and warhead weightings. Ships outfitted with the 20 mm Close-In Weapons System (CIWS) phased out the use of depleted uranium rounds in the mid-90's. While most of the testing of CIWS occurred at other sites, some limited gunnery exercises occurred at PMRF. There are no plans to use depleted uranium in the future.

As stated in Chapters 1 and 2 of the Draft EIS, the purpose of the proposed enhancements is to provide the range with the capabilities to test Navy TBMD and other Theater Missile Defense systems. These systems are the shorter-range missile defense systems, as opposed to longer-range national missile defense systems under development, which are not part of the EIS. Chapter 2 of the Draft EIS also describes numerous on-going testing and training activities of the Navy at PMRF, which would continue regardless of a decision on the proposed enhancements at PMRF.

The Navy's proposed enhancements at PMRF are not connected to issues relating to the homeporting of an aircraft carrier at Pearl Harbor.

As discussed in Section 2.1, the no-action alternative consists of the continuation of ongoing activities at PMRF but would not result in enhancements to accommodate TBMD testing. This is in accordance with CEQ regulatory guidance concerning the acceptable range of alternatives in an EIS. The Navy is not required to consider a reduction of its ongoing activities as an alternative to the proposed enhancements and does not consider it prudent to do so.

Again, thank you for your comments.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0249

P-W-0265

9-210

14 May 1998

To: U.S. Navy, Pacific Missile Range Facility
P.O. Box 128, Kekaha, Hawai'i 96752-0128
Contact: Vida Mossman

From: Bernard Keli'ikoa, President,
Ka 'Ohana O KaLae, P.O. Box 271
Na'alehu, Hawai'i 96772

Re: Draft Environmental Impact Statement
Pacific Missile Range Facility Enhanced Capability

We acknowledge the request of solicitation of public comment regarding the planned expansion of the Pacific Missile Range Facility Enhanced Capability, which is a *mere formality* in the EIS process. Therefore, our mana'o will allow us an ease of conscience, if nothing else.

"It took only eight years and $21 billion to send a man to the moon. More than 14 years and $40 billion later, 'Stars Wars' is still a figment of Reagan's imagination...The National Intelligence Council -- a group of security experts from federal agencies -- says it will take 15 years for a long-range missile threat from rogue nations to develop. In other words, there is no immediate threat" (***"STAR WARS: FORCE NOT WITH US"*** Investor's Business Daily, 25 August 1997 page one).

Ni'ihau residents are a living language and cultural resource. With the virtual shut down of NIIHAU RANCH, along with the charcoal-manufacturing business, some Ni'ihau people are able to supplement their income with collecting pupu Ni'ihau. Could not the Navy support the perpetuation of the Ni'ihau residents by peaceful means? Following the message of Jesus The Christ, "We are all the children of God...Thou shall not kill."

We support the conversion of the Pacific Missile Range Facility Base to a humane endeavor. With Hawai'i plants and animals topping the global endangered species lists the time is ***NOW*** to set aside isolated biosystems like Ni'ihau, for rehabilitation of endangered life. Ask the expert Hawaiian fishermen, farmers, lei makers and la'au, about what is quickly being eliminated in the environment, and have them head restoration centers for seed propagation and perpetuation of natural, solar, organic, natural-mulch plantings and reforestation. Include the Hawaiians in the decisions, and show respect to the first peoples of these islands who deserve the best of all cultures, and not only the most high cost, military and industrial solution.

In hope of transformation and world peace,

Bernard Keliikoa

Bernard Keli'ikoa

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0991
23 OCT 1998

Mr. Bernard Keliikoa
PO Box 271
Naalehu, HI 96772

Dear Mr. Keliikoa:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

Niihau elders assisted the Navy in identifying areas where Navy activities could occur. Cultural and natural resource surveys have been conducted with Niihau residents in these areas. Within these areas, as specific siting activities proceed, more detailed surveys will be conducted.

The Navy has solicited input for all interested parties on Kauai and Niihau. For Niihau, this included two informational meetings. We believe that these meetings, coupled with the testimony of several Niihau residents at the Waimea public hearing on April 25, 1998, indicate a full and complete understanding of the proposed action and its potential impacts.

Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology infrastructure to perform some of this testing.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0265

9-211

P-W-0277

CENTER FOR NON-VIOLENT EDUCATION AND ACTION, INC.

Ms. Vida Mossman
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 24, 1998

Dear Ms. Mossman:

Captain J.A. Bowlin's reply to my letter during the EIS scoping process was completely non-responsive to 4 out of 5 expressed concerns. After reviewing the full draft EIS I find this typical. The draft EIS and this process is a sham.

Let me add one additional point which I find completely unaddressed and underscores the sham nature in the EIS process. It concerns the issue of depleted uranium used in weapons, missile system ballast, in ship hulls, etc. Depleted uranium poses a threat to air and water quality, bioilogical resources, cultural resources, geology and soils. It most seriously poses health and safety questions.

Depleted uranium (DU) is a highly toxic and radioactive product of the uranium enrichment process to make nuclear weapons and reactors. DU is 60% as radio-active as naturally occurring uranium, has a very long half-life, is extremely dense, available in large quantities (1.1 billion pounds in the U.S.) and given free to arms manufactures. According to the book, Metal of Dishonor, published by the International Action Center in N.Y., during the 1970s and 80s the Army did a great deal of testing of DU in tank armor, Tomahawk Cruise Missiles, Phalanx Close-in Weapons Systems, etc. but failed to test with the same thoroughness the effect of this so-called spent metal on health and the environment. It's now reported that 300 tons of DU from spent rounds lay scattered across the battlefields of Iraq and Kuwait. Gulf-War Syndrome and other illness of people who were in the Gulf War may be related to DU. How many tons lay scattered around Hawaii's land and surrounding water?

I know for a fact that DU has been used as ballast in missiles fired over Hawaii from Vandenberg AFB in California to the Marshall Island lagoons. Given the extensive military training in Hawaii at Kahoolawe, Makua, the East Range of the Koolau, Pohakuloa, PMRF, etc. I suspect that DU has been used extensively by the military in Hawaii. I have never seen any mention of this either in the present draft EIS or in any other military publication in Hawaii. What is the truth? Has DU been used in any PRMF training and is it planned for use in the present Enhancved Capability of PMRF? Let's end the cover-up of Hawaii's nuclear nightmare. DU is only the tip of Hawaii and the

MALU AINA FARM P.O. BOX AB KURTISTOWN HI. 96760 (808)966-7622

9-212

world's Titanic nuclear iceberg.

The U.S. should be doing an EIS to clean up its Hawaii and planetary pollution, instead of adding further pollution. Any further use of DU should be banned outright, and I call on Hawaii's congressional delegates to see that it happens. The best EIS for PMRF is to shut the place down and for the U.S. military to "QUIT HAWAII." But clean up your mess before you go!

Resistance means life,

James V. Albertini
President

cc: Hawaii Congressional delegates

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1103
23 OCT 1998

Mr. James V. Albertini
Center for Non-Violent Education and Action
PO Box AB
Kurtistown, HI 96760

Dear Mr. Albertini:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS). We appreciate your input as it is crucial to the EIS process.

Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

Depleted uranium was used at one time for missile casings and warhead weightings. Ships outfitted with the 20 mm Close-In Weapons System (CIWS) phased out the use of depleted uranium rounds in the mid-90's. While most of the testing of CIWS occurred at other sites, some limited gunnery exercises occurred at PMRF. There are no plans to use depleted uranium in the future.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0277

May 26, 1998

Via Facsimile Transmittal and U.S. Mail

Commanding Officer
Pacific Missile Range Facility
P.O. BOX 128
KEKAHA HAWAII 96752-0128

Michael Wilson
Department of Land and Natural Resources
1151 Punchbowl Street
HONOLULU HAWAII 96813

Comments on Draft Environmental Impact Statement for Pacific Missile Range Facility (PMRF) Enhanced Capabilities: Pacific Missile Range Facility letter Ser 7080/0305 26MAR1998.

Comments

1. The extent to which construction then continued human population increases on Tern Island and Johnston Atoll will impact the breeding success of the Monk Seal, **Monachus schauinslandi**, an Endangered Species, is not sufficiently addressed. The population of the Monk Seal has declined over the last decade, as mentioned in the dEIS section 3.3.1.3.2.4.

The French Frigate Shoals, of which chain Tern Island is a member, contain a significant percentage of the individuals. Additional adverse pressure on the remaining population is not advisable at this time, and proposed mitigation not adequate to insure no adverse impact. For instance dEIS paragraph 4.3.1.3.2.1, construction phase, Tern Island, indicates dredging and construction activity on the island. The only mitigation detailed are geological studies before dredging and that "mitigation could be developed and implemented in consult with FWS." This does not reassure me that during construction, when contractors are present and under time deadlines, that they will consistently avoid monk seals. The final EIS should include mitigation to the construction phase and include performance monitoring and penalty for contractor violations to the construction section, 4.3.1.3.2.1. At the least adverse impact to Hawaiian Monk Seals on Tern Island during construction would include loss of resting sites when hauled out on shore due to increased human presence, noise, and equipment traffic. Also loss of hunting habitat due to construction activity noise, water turbitity, and boat activities near the island. To be addressed by the EIS is whether or not disruption of a site would result in abandonment for a period by the species, a serious consequence in consideration of the decline in numbers.

2. There is a lack of baseline biological data regarding invertebrate species on Tern Island. This material should be summarized and referenced in section 3.3.1.3.2 subsections .2, .3 and .4. No assessment of impact and proposal of mitigation can be made. Tern Island is only 15 hectares in size and presence of species with limited numbers and/or specialized habitats must be made.

3. As item two, Johnston Atoll. Two islands Akau (North) Island and Hikima (East) Island are historically man made however the proposed building and operations of the launch and/or tracking equipments will effect them and the rest of the Johnston Archipelago. One example, need to rebuild electric service to them from Johnston Island proper, section 3.3.2.11.2.1. Additional personnel support activities as boat and plane arrival/departures for supplies since PMRF will no doubt billet staff there. Hence environmental impact must address and reference existing biological survey information. Currently the dEIS is insufficient, being limited to only vascular plants, section 3.3.2.3.2.1, vertebrates, section 3.3.2.3.2.2, and threatened and endangered species, section 3.3.2.3.2.3.

4. Section 3.3.1.11.2 states "There is no regular utility infrastructure on Tern island. All existing facilities are self-contained (for example, solar powered generators)." Section 4.3.1.11.2 states all existing facilites would remain self contained. Since there is no specific listing of what installation would be placed on Tern Island the question is what new facilities would be built? And then, what electrical requirements would be made? Installation of a generator would require some sort of petroleum fuel storage. Given that the type of generation is not specified, whether piston, gas turbine or other, contamination for the most likely needs to be addressed in the EIS. If the site is to be operated only intermittently will fuel be removed each time the site is manned, for safety reasons? Detailed standards for fuel spill containment are missing. Providing power of less contaminative potential from solar electric generation should be included, with its impacts.

5. The final EIS needs a detailed plan to mitigate the danger of large simultaneous brush fires resulting from accidental or early launch termination rocket destruction over Niihau. Multiple fires would be expected to start from

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pieces of flaming debris as it falls. The dEIS states, Section 4.2.1.3.2.2 "With adequate fire suppression and the non-native character of the vegetation near the proposed locations, few potential impacts would occur from fires started by early launch termination." Same section, under mitigation includes "Providing fire suppression equipment at launch sites". Please address the current state of firefighting equipment and trained personnel and the changes that will be made.

6. Generally: Military construction and industrialization is unacceptable from the point of view of the public's right to proper management of a National Wildlife Refuge. All islands managed as part of the Hawaiian Islands National Wildlife Refuge fall under the US Fish and Wildlife Service, U.S. Department of the Interior. The Service is tasked with maintaining, protecting and defending endangered species and hence the habitat of those species. It cannot do so if another government agency is destroying that habitat. The Navy's attempt to gain control of more island habitat will degrade ongoing work being done by Fish and Wildlife to rebuild populations of the Hawaiian Monk Seal, Green Sea Turtle, pelagic and shore birds.

7. As a general point of information: The County of Oahu extends all the way to Kure' Atoll. Tern Island is thus part of the City and County of Honolulu. This is considered unpopulated since the Coast Guard station in French Frigate Shoals, on Tern Island, has been automated.

8. Insufficient mitigation is listed for limiting introductions of alien species onto Tern Island and Johnston Atoll.

Keith R. Palmer
Conservation Chair
Sierra Club, Oahu Chapter
PO BOX 2577
HONOLULU HI 96803

808 538 6616

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 11 07
13 OCT 1998

Mr. Keith R. Palmer
Oahu Chapter
Sierra Club
PO Box 2577
Honolulu, HI 96803

Dear Mr. Palmer:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

1. Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

   The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

2.-3. Tern Island and Johnston Atoll have been eliminated as proposed action sites in the Final EIS.

4. Tern Island has been eliminated as a proposed action site in the Final EIS.

5. While fire protection plans will vary depending on the type of activities conducted, basic elements could include vegetation clearing, cutting fire breaks, manning water trucks, and actual fire fighting if required. Typically, a PMRF helicopter is airborne with a fire bucket to assist during launch activities. It is anticipated that Niihau Ranch would be contracted to support some, if not all, of their activities.

6. See the answer to Question #1 above.

7. Thank you for this information.

8. Section 4.3.1.3.2.2 has been revised to reflect that existing U.S. Fish and Wildlife Service procedures to prevent additional introduction of terrestrial and marine alien species at Tern Island and Johnston Atoll would be strictly followed, however, see the answer to Question #1 above.

Let me assure you that we who have the privilege of working at PMRF want to do all we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0282

9-215

Hawai'i Wildlife Fund
P.O. Box 70
Volcano, HI 96785-0070

May 25, 1998

Ms. Vida Mossman
c/o Pacific Missile Range Facility
P.O. Box 128
Kekaha, HI 96752-0128

RE: PMRF Enhanced Capability Draft EIS (4/3/98)

Dear Ms. Mossman:

I comment on this Draft EIS document using my 16 years (1980 through 1995) experience gained as Chief, Protected Species Investigation, Honolulu Laboratory, National Marine Fisheries Service. In that position I directed research and recovery programs for the Hawaiian monk seal and Hawaii's marine turtle species. Retired from federal service now, I continue to work with Hawaii's monk seals and marine turtles through the Hawaii Wildlife Fund.

Tern Island beaches are used daily and heavily by both the endangered Hawaiian monk seal and the threatened green turtle. Seals use the beaches to haulout, rest, molt, and occasionally give birth. Critically important also, is the use of Tern I. by green turtles for basking and nesting.

The monk seal population at French Frigate Shoals is undergoing a catastrophic decline related to reduced prey resources in this area. The decline in total number of seals is occurring due to low birth rates in adult females, low weaning weight of pups, and high juvenile mortality. These changes from the 1970s and 1980s, beginning in the late 1980s show that the monk seals at French Frigate Shoals are a highly stressed population due to a reduction in prey availability.

The green turtle nesting population using French Frigate Shoals is slowly growing and the nesting activity on Tern I. has played a significant role enabling this species' in recovering its nesting numbers.

During the decades of occupation of Tern I. by the U.S. Coast Guard, the monk seal and green turtle were only rarely seen on this island. Human disturbance of wildlife habitat in the Northwestern Hawaiian Islands has been the most detrimental factor to the native species using these islands. Important for

9-216

consideration in reviewing the actions porposed in this Draft EIS is that the primary human disturbance of the wildlife in recent decades has been the Navy and the Coast Guard. I have observed that the mission-related activities of the Navy and Coast Guard, including recreation, takes precedence over wildlife and habitat protection. One only need look at the dramatic changes in seal and turtle use of Tern I. following departure of the Coast Guard, or the similar increasing beach counts of seals and an unprecedented two monk seal births on Sand I. at Midway, following quickly after the Navy departure there. This gives us a rather clear message about the concern these agencies have for endangered and threatened species and what the results of co-habitation of small islands means to these "protected" species. These two, Navy and wildlife, cannot be allowed to mix in the fragile island ecosystems of the Northwestern Hawaiian Islands.

Tern I. is a critically important hauling site to monk seals because it provides a resting area near the north atoll foraging grounds, recently identified as such through satellite tracking of seals. In this highly food stressed population of seals, disturbance of this hauling site by human activities and the noise of rocket launches would force seals to use less preferred and more distant hauling sites, adding even further stresses to this species.

Using Tern I. for the activities proposed in the Draft EIS would similarly cause turtles to abandon Tern I. and use more crowded nesting islands within the atoll, contributing to an overall reduction of hatchling production due to inadequate nest separation with some females digging up the nests of others.

Any dredging activity at French Frigate Shoals also has the potential of causing ciguatera poisoning and killing monk seals. This is a problem that cannot be mitigated. You can monitor the fish population to detect an outbreak, but if a dinoflagellate bloom is found to occur as a result of your activities, by what means could you deter monk seals in a food stressed population from eating ciguatoxic fish, without causing further disturbance and deaths?

Although Niihau I. is also known to be used by Hawaiian monk seals, the number of seals using these beaches and the number of births that may occur there are unknown to scientists. Before any further action is taken in planning for the use of Niihau for the activities outlined in the Draft EIS, population research must be initiated on these seals to determine the population's basic characteristics such as population size and composition, annual pup production, hauling patterns in the vicinity of any areas that may be impacted by the proposed activities, and survival and movement patterns.

Tern I., and perhaps Niihau (based on future monk seal population assessment findings) cannot be used for the proposed Navy actions, the actions present certain and high risk for the endangered Hawaiian monk seal population, the threatened green turtle population, and these fragile island ecosystems.

Thank you for considering these comments in your future planning.

Sincerely,

William G. Gilmartin
President

cc: PSI,NMFS

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1109
23 OCT 1998

Mr. William G. Gilmartin
Hawaii Wildlife Fund
PO Box 70
Volcano, HI 96785-0070

Dear Mr. Gilmartin:

We appreciate your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS) and your experience with the Hawaiian monk seal and green sea turtle.

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that we who have the privilege of working at PMRF want to do all we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0284

9-217

P-W-0286


Sunrise, Mt. McKinley Ansel Adams

SIERRA CLUB LEGAL DEFENSE FUND, INC.
EARTHJUSTICE
The Law Firm for the Environmental Movement

(On August 1, 1997, we officially became Earthjustice Legal Defense Fund)

223 South King Street, 4th Fl., Honolulu, HI 96813 (808) 599-2436 FAX (808) 521-6841

May 26, 1998

Via Facsimile Transmittal and U.S. Mail (808) 335-4660 (PMRF), 587-0390 (DLNR)

Commanding Officer
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Hawai`i 96752-0128

Michael Wilson
Department of Land and Natural Resources
1151 Punchbowl Street
Honolulu, Hawai`i 96813

Re: Pacific Missile Range Facility Enhanced Capabilities

To Whom It May Concern:

This letter provides comments on the Draft Environmental Impact Statement (DEIS) for Pacific Missile Range Facility (PMRF) Enhanced Capabilities on behalf of Kaua`i Friends of the Environment, Raymond Chuan, and our organization.

The DEIS is a joint statement by the U.S. Navy and the State of Hawai`i pursuant to the National Environmental Policy Act (NEPA), 42 USC §§ 4321, et seq., and Hawai`i Revised Statutes (HRS) Chapter 343. After speaking with land managers at the Hawai`i Department of Land and Natural Resources, we understand that the State has had minimal involvement, if any, in preparing the DEIS, and based on the content and conclusions, it would appear that whoever prepared the document is not familiar with the islands.

Our comments below are restricted to the proposed action. However, for the record, we note that several components of the no-action alternative may have a significant effect on the human environment. If the DEIS is intended to evaluate the no-action alternative pursuant to NEPA and HRS Chapter 343, then it is woefully inadequate. To the extent the various components of the no-action alternative were evaluated in previous environmental assessments and/or impact statements, they need to be reassessed within the current context. Of particular concern is the continued bombing of Ka`ula Rock, a State Seabird Sanctuary, and direct and cumulative significant adverse impacts on tens of thousands of breeding, nesting, and newly hatched seabirds, including terns, boobies, shearwaters, and albatrosses.[1]

[1] Report on Trip to Ka`ula Island, June 19-20, 1980. State of Hawai`i Department of Land and Natural Resources. April 15, 1983.

9-218

We also note that both the no-action alternative and the proposed action are controversial, and that the DEIS Executive Summary does not include the required "areas of controversy (including issues raised by agencies and the public)." 40 CFR § 1502.12.

We provide specific comments below regarding the proposed action and the Navy's failure to: provide supporting documentation; justify the need for the proposed action and consider reasonable alternatives; adequately describe the proposed action; and adequately describe the environmental impacts of the proposed action.

A. Failure to Provide Supporting Documentation

1. The Navy does not refer to specific supporting and background documents in order to justify its findings and conclusions in the DEIS. Council on Environmental Quality (CEQ) regulations require agencies to "insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements." Agencies "shall identify any methodologies used and shall make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the statement." 40 CFR § 1502.24.

2. Supporting and background documents, such as current biological surveys, cultural reports, and environmental monitoring data and analyses, are not included in the body of the DEIS or as appendices. In addition, several documents cited in the document are not included in the References section of the DEIS,[2] and the regulatory background for each environmental resource addressed in the DEIS is not included in Appendix G, as stated in the DEIS. Senate Report 103-321 and Report 103-747 -- also heavily relied upon in the DEIS -- should be included as an appendix as well.

3. The Navy has not made reference materials listed in the DEIS available for public review and comment in a timely manner. Several specific documents requested by a concerned citizen were produced a week before the comment period deadline. The Navy is required to circulate the entire draft and final environmental impact statements except for certain appendices as provided by the regulations, in which case they must be readily available for public review upon request. 40 CFR §§ 1502.18, 1502.19.

[2] For example, Kirch 1985, Poetter 1988, U.S. Army Corps of Engineers 1992, Division of State Parks 1993, O'Hare and Rosendahl 1993, U.S. Army Space and Strategic Defense Command March 1994 and September 1996, U.S. Department of the Army June 1995, EDAW 1997, Frearea 1997, U.S. Environmental Protection Agency 1997, Inouye 1998.

A. Failure to Provide Supporting Documentation, con't.

4. By way of this letter, we request that all supporting and background documents prepared for, or relied upon in, the DEIS be made available for public review on Kaua`i and O`ahu. Such documents include, but are not limited to, current biological surveys and studies, cultural surveys and reports, and environmental monitoring data and analyses of air, soil, and water quality.

5. We also request that the DEIS public comment period be extended 60 days following the production of all requested supporting and background documents. Notice of the availability of the documents and extended comment period should be given in newspapers of local circulation on Kaua`i and O`ahu, and to all parties receiving copies of the DEIS. A project of this magnitude (in terms of complexity, cost, and environmental impact) warrants such disclosure and consideration by citizens and decision-makers.

B. Failure to Justify Need for Proposed Action and Consider Reasonable Alternatives

1. We question the need for the proposed action. The DEIS states that the theater-wide program is not sufficiently developed at this time to evaluate in the document. In a statement to the Senate Appropriations Committee, Subcommittee on Defense on April 22, 1998, Lt. General Lester Lyles stated, "[t]he Navy Theater Wide program is currently in the Program Definition & Risk Reduction phase of development . . . ." Although the DEIS mentions the perceived need to develop a theater-wide missile defense system, it fails to adequately discuss the need for the specific proposed action.

2. The DEIS does not mention that an environmental impact statement for the theater missile defense program already evaluated four sites: White Sands Missile Range in New Mexico, Eglin Air Force Base in Florida, Vandenberg Air Force Base in California, and the U.S. Army's missile range at Kwajalein. PMRF was not considered in the analysis because PMRF lacks the full range of land-based instrumentation sites to observe intercepts and inadequate land area for interceptor deployment or for the placement of instrumentation that would have to be brought from another range.[3] Curiously, the Navy now seeks to spend millions of taxpayers' dollars to enhance PMRF when existing sites are better equipped.

[3] Theater Missile Defense Extended Test Range Final Environmental Impact Statement. U.S. Army Space and Strategic Defense Command. November 1994.

B. Failure to Justify Need for Proposed Action and Consider Reasonable Alternatives, con't.

3. The Navy does not consider sites other than PMRF, and fails to disclose the need for the proposed action in light of existing and similar, if not identical, programs at White Sands, Eglin, Vandenberg, or Kwajalein, all of which are identified in the DEIS as part of the theater missile defense extended test range. For example, the DEIS does not discuss the need for the proposed action in relation to a draft environmental impact statement on proposed Theater Missile Defense testing at Eglin Gulf Test Range, which was recently issued on February 6, 1998. Nor does the DEIS discuss the need for the proposed action in relation to all of the sites considered in the Navy's Coordinating Draft Siting Report dated March 3, 1997, including locations on the U.S. mainland and in the Pacific. Instead, the Navy states that the scope of the DEIS is restricted to PMRF because the Senate Appropriations Committee, Subcommittee on Defense has directed that PMRF "be designated the primary test range for the completion of Navy lower tier and upper tier missile flight tests." Senate Report 103-321. The DEIS also states that, in report 103-747, the House of Representatives Committee of Conference indicated its agreement with the Senate initiative "to improve the capabilities of the Navy's Pacific Missile Range Facility" and provided funding for that purpose. CEQ regulations require that "[t]he range of alternatives discussed in environmental impact statements shall encompass those to be considered by the ultimate decisionmaker." 40 CFR § 1502.2(e). The DEIS clearly does not.

C. Failure to Adequately Describe the Proposed Action

1. Even within the context of expanding PMRF's capabilities, the DEIS is vague in its description of the proposed action. For example, the DEIS does not identify the necessary components of the proposed action in order to achieve the Navy's objectives, nor does it state whether program objectives can be met with less than all of the launch sites described in the DEIS as part of the proposed action. Instead, the DEIS includes virtually every missile launching scenario possible.

According to Captain James Bowlin, the military's preference is to launch test rockets only from ships or aircraft, and launch sites on Ni`ihau, Johnston, and Tern are only being considered as alternative sites if ship or air launches are not practical.[4] However, the DEIS indicates no preference for mobile platform sea-based or aerial platform-based launch pads, and the Navy now proposes launches from PMRF, Ni`ihau, ships, and aircraft. Furthermore, the DEIS does not explain whether Tern Island and Johnston Atoll, which are "candidate sites" in the proposed action, are part of the preferred alternative or whether they are essential to meeting the Navy's objectives.

[4] *The Honolulu Advertiser.* "Ni`ihau Rocket Sites Pose Benefits, Risks." April 8, 1998.

C. Failure to Adequately Describe the Proposed Action, con't.

As another example, the DEIS states that a distance of 1200 km (648 nmi) is needed between target and defense launching systems. Target and interceptor/ defensive missiles will be launched from both PMRF and Ni`ihau, and target missiles only will be launched from aerial platform-based and mobile platform sea-based pads, Tern, and Johnston. Figure 2.3.5-2 in the DEIS illustrates a launching scenario involving Tern and PMRF. However, Tern is approximately 700 km away from PMRF, which does not meet the stated 1200 km distance requirement. The DEIS also states that PMRF and Ni`ihau are being considered for the launching of interceptor/defensive missiles as well as target missiles. Since Ni`ihau is less than 1200 km away from PMRF, and since PMRF is the only other site from which interceptor/ defensive missiles will be launched, why are target missile launches being proposed on Ni`ihau?

CEQ regulations require the Navy to devote "substantial treatment to each alternative considered in detail, including the proposed action, so that reviewers may evaluate their comparative merits." The regulations also require the Navy to identify its preferred alternative or alternatives, if one or more exists, in the DEIS. 40 CFR §§ 1502.14. This has not been done.

2. The DEIS fails to disclose all of the launch programs being considered at PMRF through the year 2030 (expiration of the proposed extended restrictive easement from the State of Hawai`i), nor does the DEIS identify the specific target and interceptor/defensive missiles proposed for each of the sites considered, the number of launches of each missile type, when each of the launches will occur, whether launches will occur at night, and specific (as opposed to generic) trajectories and ground hazard areas/impact zones. (One of the first times the number of missile launches for Tern Island and Johnston Atoll is mentioned is in Volume 2 in response to a citizen's concern, and even then, the response does not specify which missile systems will be launched.) In addition, the DEIS does not disclose how the time frames within which ground hazard area restrictions were determined. Without this basic information, the public and decision-makers are unable to evaluate the potential merits and impacts for each of the sites being considered.

3. The Navy proposes a revised and an extended restrictive easement from the State of Hawai`i on Kaua`i, including the removal of any explicit references to the missiles to be launched. By not identifying the specific types of missile launches proposed and frequency of launches, how can the Navy properly evaluate and mitigate the proposed action's impacts, especially cumulative ones?

4. The DEIS states that the number of activations (30) under the current easement at Polihale/Nohili will remain the same under the proposed action. Which missile launches at PMRF will be replaced by the proposed theater missile launches, and why?

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C. Failure to Adequately Describe the Proposed Action, con't.

5. The DEIS fails to describe the proposed action in the context of restrictions imposed by international treaties, such as the START Treaty and the Intermediate-Range Nuclear Forces (INF) Treaty. It has been pointed out that the START Treaty bans target launches from sea-based platforms, and that the INF Treaty appears to require that mobile and fixed sea launch platforms for targets be located no more than 500 km from the planned target impact point. How, then, do sea-based launches meet the Navy's objectives here? It also has been pointed out that the use of Ni`ihau and Tern as launch sites may violate the INF treaty. The Navy responded to this concern by stating that launch sites may be changed or substituted upon proper notification.[5] Which sites may be involved in the substitution, and are they covered in the DEIS? If not, how does the Navy plan to disclose, analyze, and mitigate the substitutions under NEPA and HRS Chapter 343? The Navy's failure to address the conflicts between the proposed action and international treaties is yet another indication that it has not sufficiently thought out the need for the proposed action, the specific components of the proposed action, or its impacts.

D. Failure to Adequately Describe the Environmental Impacts of the Proposed Action

1. The DEIS does not adequately describe the proposed action or the affected environment, nor does it analyze the environmental impacts, in violation of CEQ regulations, which require environmental impact statements to be "analytic rather than encyclopedic." 40 CFR § 1502.2(a). Given the magnitude of the project and the Navy's own description of the likely impacts, we cannot agree that few adverse impacts will result from the proposed action as indicated in Table 2.5-1.

2. The DEIS does not adequately disclose or analyze the indirect effects of the proposed action, and focuses on direct effects instead, albeit inadequately. CEQ regulations require that the DEIS evaluate the direct and indirect effects, and their significance. 40 CFR § 1502.16. The DEIS must also include adequate discussion, analysis, and mitigation of reasonably foreseeable significant adverse effects on the human environment (e.g., aborted/failed launches; locating facilities and storing hazardous materials in areas prone to hurricanes, tsunami, and tropical storms; and accidents). 40 CFR §§ 1508.8, 1502.22.

3. In addition, the DEIS does not fully disclose the environmental impacts that cannot be avoided if the proposed action is implemented, nor does it discuss or analyze the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any irreversible or irretrievable commitment of resources. 40 CFR § 1502.16.

[5] Letter to Dr. Michael Jones from Captain J.A. Bowlin, U.S. Navy. March 11, 1998.

D. Failure to Adequately Describe the Environmental Impacts of the Proposed Action, con't.

4. The DEIS does not provide credible scientific information, data, or analyses to support its conclusive statements regarding impacts, or it relies on dated and inadequate studies prepared for STARS launches at PMRF, in violation of CEQ regulations regarding methodology and scientific accuracy in environmental impact statements. 40 CFR § 1502.24. Environmental impact statements must be "concise, clear, and to the point, and shall be supported by evidence that the agency has made the necessary environmental analyses. 40 CFR § 1502.1.

5. The DEIS fails to describe the specific impacts associated with aborted/failed launches, nor does it provide failure rates and probabilities of launch failure for each of the missile systems proposed. This information must be disclosed for each of the proposed missile systems, flights, and launch sites in the preferred alternative. Previous launch failures at PMRF and elsewhere must also be included.[6]

6. The DEIS does not disclose specific mitigation measures, such as safety regulations and procedures that will be implemented during the transport of hazardous materials to launch sites, launching events, and in the event of accidents and aborted/failed launches. Instead, the DEIS states that "applicable safety regulations would be followed in the transport and handling of hazardous materials." The DEIS must include information on failed launch procedures, such as the amount of time necessary to terminate a failed launch so that debris from an off-course flight will be contained within the ground hazard area. CEQ regulations require the DEIS to include appropriate mitigation measures not already included in the proposed action or alternatives. 40 CFR § 1502.14(f).

7. The DEIS fails to identify the ceded land on which the various components of the project are proposed, nor does it describe how the proposed action will affect ceded land and its beneficiaries. The DEIS must discuss the impacts associated with the proposed action and ceded land, including dredging to increase the surface area for launch facilities and harbor construction on Tern.

8. The DEIS does not discuss the "possible conflicts between the proposed action and the objectives of Federal, regional, State, and local . . . land use plans, policies and controls for the area concerned." 40 CFR § 1502.16(c).

[6] For example, five out of five failed Theater High Altitude Area Defense (THAAD) strikes at White Sands; four out of four failed attempts at missile intercepts with LEAP vehicles; Hera missile failure in eighth test on November 17, 1997; 85 percent reliability in flight tests of Minuteman II and III missiles and refurbished Minuteman I missiles; failed Vandal missile launch at PMRF in July 1994; Aries failure at Cape Canaveral on August 20, 1991, during which the missile went off course by nearly 90 degrees, and debris fell on land as far as 13,500 ft from the launch pad; missile launch from aircraft and fatality in December 1988.

D. Failure to Adequately Describe the Environmental Impacts of the Proposed Action, con't.

Our specific comments for the major support and candidate launch sites are provided below.

PMRF

a. The DEIS fails to discuss the environmental impacts of the proposed action and the cumulative effects of toxic chemicals and pollutants from additional launches at PMRF.[7] For example, the monitoring report for the third STARS launch at PMRF (July 22, 1994) indicates that monitors 140 ft from the launch pad measured hydrogen chloride levels of 140 ppm, exceeding 100 ppm, which is the level considered immediately dangerous to life and health. What types of gases and other toxic substances are involved in each of the proposed missile systems, and at what levels? How do these levels compare with actual measurements during similar launches and with state and federal standards? The DEIS must include this information.

b. The Navy refuses to discuss lead contamination due to past missile launches at PMRF. We understand that, during a failed Vandal launch on July 8, 1994, the solid propellant separated from its casing and was propelled backward, landing in the sand about 85 ft from the launch pad. The missile propelled forward and landed about 100 ft from the pad. Lead in soil samples taken 50 ft from the launch pad ranged from 760 to 980 mg/kg.[8] To put this into perspective, the U.S. Environmental Protection Agency's Preliminary Remediation Goal of 500 mg/kg and the Hawai`i Department of Health's Cleanup Goal of 400 mg/kg were exceeded significantly. The contaminated soil has yet to be addressed by the Navy or other federal or state agencies. In order to evaluate immediate and cumulative impacts, the Navy must consider and disclose environmental monitoring data relevant to past and proposed missile launches at PMRF. We also understand that a column of water was contaminated at PMRF. In light of this information, we find it difficult to believe the Navy's claim that the proposed action will have no adverse impacts to air, soil, and water quality. The DEIS must reconcile the Navy's conclusions regarding these impacts with the reported data. In addition to complying with NEPA's requirements for disclosure, the Navy must not be allowed to conduct additional missile testing and other activities until it initiates remediation at the contaminated sites.

[7] "Cumulative effect" is defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions . . . . Cumulative impacts can result from minor but collectively significant actions taking place over time." 40 CFR § 1508.7.

[8] Pacific Missile Range Facility Environmental Baseline Study, January 1996. This study is listed in the References section of the DEIS and states that is "for official use only." To its credit, the Navy provided a copy of the study (or some form thereof) upon the request of a concerned citizen. A copy of the study is in the Hamilton Library, University of Hawai`i-Mānoa.

D. Failure to Adequately Describe the Environmental Impacts of the Proposed Action, con't.

PMRF, con't.

c. The DEIS does not include complete information on the safety record at PMRF and misrepresents the risks and impacts of the proposed action. The DEIS states that specific risk analyses have not been conducted for each vehicle proposed to be launched as part of the proposed action. In addition to conducting such analyses, NEPA requires the Navy to fully disclose the existing safety record for PMRF, which we believe it has not. For example, the DEIS states that, for approximately 360 launches from the Kaua`i Test Facility at PMRF since 1962, there have been no ground or airborne failures that have caused injury, loss of life, damage, or destruction of any facilities or the environment. While this may be true, the Navy fails to disclose the fact that, in December 1988, a missile fired from an airplane hit a passing cargo ship off of Kaua`i and killed one of its crew members.

d. The DEIS does not adequately discuss, evaluate, or mitigate the impacts of the proposed action on the endangered humpback whale, its essential behaviors, or its habitat, including the waters off west Kaua`i and around Ni`ihau (two of four areas statewide with the highest densities of humpback whales) and the Hawaiian Islands Humpback Whale National Marine Sanctuary, which includes the north shore of Kaua`i. Nor does the DEIS discuss the conflicts between the proposed action and the purposes of the sanctuary.

e. There is no discussion in the DEIS about timing the launches at PMRF, Ni`ihau, and elsewhere to avoid breeding and calving season for the endangered whales. There is no analysis of the cumulative impacts associated with noise and human disturbance, which are significant in major breeding and calving habitat. The DEIS states that noise studies on whales are ongoing, and once they are completed, the Navy will consult with the National Marine Fisheries Service, conduct future NEPA analyses, and prepare future NEPA documents. The DEIS must identify the specific studies referred to, which agencies or individuals are conducting the studies, where the studies are being conducted, when the studies began and when they are expected to be completed, which species of whales are involved, and the NEPA documents prepared for the studies.

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D. Failure to Adequately Describe the Environmental Impacts of the Proposed Action, con't.

PMRF, con't.

f. Similarly, the DEIS does not discuss the impacts, including indirect and cumulative impacts, to endangered species of waterbirds (coot, duck, gallinule, and stilt) resulting from noise, human disturbance, and toxic substances in soil and water. The U.S. Fish and Wildlife Service has designated Mānā (adjacent to PMRF) essential habitat for these endangered birds. According to the Service, protection and enhancement of these areas will provide a long-term base of habitat, and maintenance of suitable habitat is the foundation for the entire waterbird recovery program.[9] In light of reports of dangerous levels of lead and contaminated water at PMRF, it is imperative that the Navy address these threats

g. We are also concerned about the Navy's reliance on a literature review of the impacts of military noise to animals. A summary of the review is not included as part of the DEIS, and the DEIS fails to mention that tests on other birds involving noise levels similar to those generated by the proposed launches, resulted in permanent (irreversible) hearing damage. NEPA requires the Navy to include this evidence in the DEIS and to relate it to the proposed action.

h. The DEIS does not adequately discuss, evaluate, or mitigate the impacts of the proposed action on the submerged barrier reef, threatened and endangered sea turtles, bottlenose and spinner dolphins, and other marine mammals at PMRF.

i. The DEIS does not evaluate or mitigate the immediate and cumulative impacts associated with increased development, lights, and human activities to seabirds, including the threatened Newell's shearwater and the endangered dark-rumped petrel, especially with regard to fledglings.

j. The DEIS does not discuss the immediate and cumulative impacts of the proposed action on the Laysan albatross. We understand that the Navy deliberately discourages nesting and other utilization of habitat by the albatross. How, specifically, does the Navy discourage the birds from using PMRF? Are any of the birds deliberately killed? Where do the displaced birds go, and how successful is the recolonization? What, specifically, has the Navy done to mitigate the no-action alternative (i.e., existing use of PMRF), and how does the Navy propose to mitigate increased and cumulative impacts associated with the proposed action?

k. The DEIS does not describe the natural communities threatened by activities at PMRF, and only discloses which communities might be present in the restrictive easement.

[9] Hawaiian Waterbirds Recovery Plan, Appendix A. U.S. Fish and Wildlife Service. September 11, 1985.

D. Failure to Adequately Describe the Environmental Impacts of the Proposed Action, con't.

PMRF, con't.

l. We are not sure whether to take the Navy seriously when it states that lost torpedoes and other underwater test apparatus within the exercise area could enhance biodiversity by providing a solid surface for coral and algae attachment and growth. If the Navy insists on making this statement, the DEIS must also note that coral reefs and limu beds elsewhere in Hawai`i continue to thrive without the Navy's assistance and torpedoes.

m. The DEIS does not discuss the conflicts between the proposed action and the objectives of the state Conservation District, within which PMRF lies.

n. The DEIS states that there are numerous recorded and unrecorded archaeological sites at PMRF. The Navy must complete cultural surveys and otherwise comply with the National Historic Preservation Act, 16 USC § 470, with regard to the no-action alternative (i.e., existing activities) before it considers additional construction, activities, and environmental degradation at PMRF.

o. The DEIS fails to discuss and reconcile the conflicts between the proposed action and the objectives of the Coastal Zone Management Act, 16 USC §§ 1451, et seq.

Ni`ihau

a. The DEIS fails to describe the environment in the context of breeding and other habitat for several native species, including the endangered Hawaiian monk seal, four taxa of endangered waterbirds (coot, duck, gallinule, and stilt), and the threatened green sea turtle. Nor does the DEIS analyze the anticipated impacts to these animals and their habitats. The U.S. Fish and Wildlife Service has designated Ni`ihau essential habitat for the four endangered waterbirds. According to the Service, protection and enhancement of these areas will provide a long-term base of habitat, and maintenance of suitable habitat is the foundation for the entire waterbird recovery program.[10]

b. The DEIS fails to adequately describe the risks to human health and safety associated with aborted launches and accidents on Ni`ihau. The DEIS must discuss the probability of such occurrences and include a detailed record of launch success and failure at PMRF and elsewhere. The DEIS must also discuss in greater detail the threat of fire, as well as existing and proposed fire-fighting capability.

[10] Hawaiian Waterbirds Recovery Plan, Appendix A. U.S. Fish and Wildlife Service. September 11, 1985.

D. Failure to Adequately Describe the Environmental Impacts of the Proposed Action, con't.

Ni`ihau, con't.

Flying debris from an unsuccessful Minuteman launch at Vandenberg Air Force Base on June 15, 1993 resulted in brush fires burning 400 ac on base and 600 ac off base. According to information provided by Vandenberg, the intact second and third stages of the missile and payload hit the ground 5640 ft from the launch pad, and the cluster of debris near this location was attributed to the explosion of the stages upon impact. In the most recent failed THAAD test at White Sands Missile Range, a missile hit the range about 2 mi north of the launch site, and target and interceptor missile debris landed on the range.[11] The Navy's casual attitude regarding these major threats to residents and the environment, and its failure to address them in the DEIS, is a significant concern.

c. The DEIS does not discuss the risks associated with hurricanes, tsunamis, and tropical storms, which could destroy facilities and cause accidents involving hazardous chemicals and materials in the pristine environment.

d. According to the DEIS, the Navy has not complied with the National Historic Preservation Act, no comprehensive cultural survey or assessment has been conducted, and a section 106 consultation has not been conducted for the no-action alternative (e.g., existing site and activities). The Navy must comply with the law before it considers significantly expanding its presence and activities on Ni`ihau. We also understand that, because the island is privately owned, it has been difficult for government employees to monitor environmental conditions, conduct surveys, and manage cultural and natural resources of statewide concern. The DEIS must disclose in greater detail how military activities on Ni`ihau will be monitored and mitigated given the landowners views on government activities on private land.

e. The DEIS does not discuss or reconcile the conflict between the proposed action and objectives of the State's Conservation District, which includes the entire coastline below the vegetation mark and all submerged land.

f. The DEIS fails to discuss the impacts of the proposed action on future uses of land and land tenure, including impacts affecting the possible sale of Ni`ihau and/or possible future management by a sovereign Hawaiian entity.

[11] *Honolulu Star-Bulletin.* "Missile Defense System Fails Fifth Test in a Row." (Associated Press article). May 12, 1998.

D. Failure to Adequately Describe the Environmental Impacts of the Proposed Action, con't.

Tern

a. The DEIS fails to describe the significance of Tern Island with regard to Hawaiian monk seals and overall recovery of this critically endangered marine mammal. The Hawaiian monk seal is one of the most endangered marine mammals in the world and is experiencing a precipitous decline in numbers. The Navy is informed that 90 percent of the entire population of Hawaiian monk seals (estimated 1200-1400 animals) is centered at five major breeding islands and atolls including French Frigate Shoals, and that more than half of all seal pupping occurs at French Frigate Shoals, which includes Tern. The Navy has also been informed that most juvenile and adult seals return to the atolls of their birth. Tern is one of the few habitats where the number of seals is currently increasing because military occupation and use of the island has ceased. Given what is known about human activity and habitat utilization by the Hawaiian monk seal, it is inconceivable that the Navy would even consider missile launches, dredging, and increased human activity on Tern.

b. There is no discussion in the DEIS on the immediate and cumulative impacts to the seals associated with the loss and degradation of habitat and disturbance of essential behavior such as breeding. In the past, military activities were the principal cause of declines in the populations and breeding activity of the Hawaiian monk seal. What are the impacts of night launches, lights, and associated human activity? How will the species as a whole be affected if Tern is disturbed or degraded? According to expert biologists, the two principal effects of persistent human disturbance of atoll beaches appear to be increased shark predation on monk seal pups and juveniles who are chased into the water by human activity, and eventual abandonment of sites by adults due to repeated human harassment. The DEIS offers no scientific or other evidence to support its conclusion that human disturbance will <u>not</u> cause a decline in seals on Tern, as has occurred in the past.

c. The DEIS does not discuss the specific impacts associated with noise and the threat of permanent hearing damage in monk seals.

d. The DEIS does not discuss impacts to seals resulting from dredging at Tern and increased ciguatoxins. In 1978, 50 monk seals died at Laysan. Biologists believe this was the result of a natural increase in ciguatoxins. Although the Navy acknowledges that there is "some indication that ciguatoxins adversely affect monk seals," it improperly dismisses these adverse effects by stating that, because the dredging will be local, it is not expected to jeopardize the survival of the species.

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D. Failure to Adequately Describe the Environmental Impacts of the Proposed Action, con't.

Tern, con't.

The Navy's mandatory duty under the Endangered Species Act goes far beyond avoiding the likelihood that a species may go extinct; the act requires the Navy to utilize its authority in furtherance of the act "by carrying out programs for the conservation of endangered species and threatened species . . . ." 16 USC § 1536(a)(1).

e. The DEIS does not disclose the ecological and legal conflicts between the proposed action and the monk seal's critical habitat.[12] The Endangered Species Act prohibits federal agencies from destroying or adversely modifying the critical habitat of a threatened or endangered species. 16 USC § 1536(a).

f. Although the U.S. Fish and Wildlife Service recommended that "interagency consultation with the Service and the NMFS [National Marine Fisheries Service] in accordance with section 7 of the Endangered Species Act be completed prior to issuance of the Draft EIS,"[13] the Navy chose to initiate formal consultation after the DEIS was prepared.[14] Consequently, the DEIS is incomplete, inaccurate, and misleading with regard to threatened and endangered species, and critical habitat. The Navy must, to the fullest extent possible, prepare its draft environmental impact statement concurrently with and integrated with environmental impact analyses and related surveys. 40 CFR § 1502.25(a).

g. The DEIS fails to discuss the possible conflicts between the proposed action and the objectives of the Hawaiian Monk Seal Recovery Plan, which includes limiting access to selected haul-out locations, limiting access to selected islets at French Frigate Shoals, Pearl and Hermes Reef, Kure Atoll, and Midway Islands, and limiting research at French Frigate Shoals.[15]

[12] Critical habitat for the Hawaiian monk seal includes all beach areas, sand pits, and islets, including all beach crest vegetation to its deepest extent inland, lagoon waters, inner reef waters, and ocean waters out to a depth of 20 fathoms around Kure Atoll, Midway Island except Sand Island and its harbor, Pearl and Hermes Reef, Lisianski Island, Laysan Island, Maro Reef, Gardner Pinnacles, French Frigate Shoals [including Tern], Necker Island, and Nihoa Island. 50 CFR § 17.95.

[13] Letter to Vida Mossman, Pacific Missile Range Facility, from Donald Palawski (for Brooks Harper), U.S. Fish and Wildlife Service. June 23, 1997.

[14] Letter to Brooks Harper, U.S. Fish and Wildlife Service, from Captain J. A. Bowlin, U.S. Navy. March 12, 1998.

[15] Recovery Plan for the Hawaiian Monk Seal, *Monachus schauinslandi*, by William Gilmartin in cooperation with the Hawaiian Monk Seal Recovery Team. U.S. Department of Commerce National Oceanic and Atmospheric Administration National Marine Fisheries Service. March 1983.

D. Failure to Adequately Describe the Environmental Impacts of the Proposed Action, con't.

Tern, con't.

h. There is no discussion in the DEIS of the immediate and cumulative impacts to threatened sea turtles. Historically, 80 percent of green sea turtle nesting in Hawai'i occurred at French Frigate Shoals. In the past, military activities were the principal cause of declines in the populations and breeding activity of the threatened green sea turtle. What are the impacts of night launches, lights, and associated human activity? The DEIS does not analyze or sufficiently mitigate the significant adverse impacts associated with human disturbance and abandoned nesting habitat.

i. There is no discussion in the DEIS of the immediate and cumulative impacts to hundreds of thousands of nesting seabirds at Tern. The DEIS does not analyze or sufficiently mitigate the significant adverse impacts associated with human disturbance, habitat loss and degradation, and disturbance of essential behavior, including nest abandonment and increased hatchling mortality due to exposure to the elements and predators.

j. The DEIS does not discuss the increased threat and significant adverse impacts of increased alien species introductions to Tern. Expert biologists alerted the Navy to the fact that rats (introduced by the military) extirpated the endangered Laysan finch and the now-extinct Laysan rail on Midway. Rats also caused the dramatic reduction of populations of most of the breeding seabirds and damaged native plant species. There are no rats in the Hawaiian Islands National Wildlife Refuge (including Tern) or the Johnston Atoll National Wildlife Refuge at this time.

Alien plants and insects are also a significant threat. Birds become entangled in introduced plants, and ants can kill newly hatched seabirds and Laysan finch chicks. The brown tree snake is another major threat to native ecosystems. The snake was introduced by the military to Guam and has wiped out the native avifauna. The DEIS must disclose the origins of military shipments of equipment and materials, the terrestrial and marine species that could be introduced, the specific impacts associated with the introductions, and the specific precautions that will be taken to avoid the introductions, including the way in which ballast water from ships will be handled. Given the fact that alien species pose the greatest threat to native Hawaiian ecosystems and species, we are concerned about the Navy's inability or unwillingness to address this significant issue.

D. Failure to Adequately Describe the Environmental Impacts of the Proposed Action, con't.

Tern, con't.

k. The DEIS fails to discuss the conflicts between the proposed action and the purpose, policies, and objectives of the Hawaiian Islands National Wildlife Refuge, including Tern specifically. The U.S. Fish and Wildlife Service has already indicated that the Navy must show that the proposed missile launches, harbor construction, and associated activities are compatible with the purposes of the refuge, which is to manage the area for the protection, enhancement, and preservation of seabird colonies and endangered species.

l. The DEIS does not discuss the threat of hurricanes, tsunamis, and tropical storms, which could destroy facilities and cause accidents involving hazardous chemicals and materials in this pristine environment.

m. The DEIS fails to discuss and reconcile the conflict between the proposed action and the objectives of the State's Conservation District. Tern is within the Protective Subzone of the Conservation District and receives the highest level of protection under state law.

Johnston Atoll

a. The DEIS is seriously inadequate in its disclosure and analysis of impacts for Johnston Atoll, including impacts to the Johnston Atoll National Wildlife Refuge, which was reserved and set aside as a refuge and breeding ground for native birds. The DEIS does not adequately assess threats and impacts to the endangered humpback whale, endangered Hawaiian monk seal and other marine mammals, threatened and endangered sea turtles, and several species of seabirds and shorebirds that breed, nest, and otherwise utilize the area.

b. The DEIS does not discuss, analyze, or propose to mitigate the impacts associated with the potential introduction of rats, insects, plants, and other species to the refuge. Currently, there are no rats in the Johnston Atoll National Wildlife Refuge.

c. The Navy must produce peer-reviewed results of the environmental monitoring and research on birds, fish, coral reefs, and the atoll environment. According to the DEIS, the work is funded in association with JACADS and began in 1983.

d. The DEIS does it reconcile the conflicts between the proposed action and the purposes, policies, and objectives of the Johnston Atoll National Wildlife Refuge. The required analysis must include direct and indirect threats, and the cumulative effects associated with human disturbance and habitat loss and degradation.

D. Failure to Adequately Describe the Environmental Impacts of the Proposed Action, con't.

Johnston Atoll, con't.

e. The DEIS does not discuss safety issues associated with missile launches and the Johnston Atoll Chemical Disposal System (JACADS). The DEIS must disclose and analyze the specific missile systems proposed for Johnston Atoll, and explain how specific ground hazard areas were calculated. Curiously, the generic ground hazard area for Johnston Atoll barely excludes Johnston Island, where the chemical weapon disposal facility is located. What is the probability of aborted/failed launches for each of the specific missile systems proposed, and what are their likely impacts?

f. The DEIS fails to discuss the risks associated with missile launches at Johnston Atoll, which is subject to hurricanes, tsunamis, and tropical storms. Such events could destroy facilities and cause accidents involving hazardous chemicals and materials in the pristine environment. The DEIS must discuss indirect impacts and their significance, including reasonably foreseeable significant adverse impacts.

g. The DEIS must discuss the impacts of contaminants from the proposed missile launches, including cumulative impacts from past activities. For example, what are the impacts of lead contamination on North Island at an abandoned firing range, and what is being done to remedy the situation? The military must mitigate the effects of its ongoing actions and clean up its mess before proposing to expand activities at Johnston Atoll and elsewhere in the Pacific.

Thank you for the opportunity to comment. We look forward to your response.

Sincerely,

Marjorie Ziegler

Marjorie Ziegler

cc: Governor Benjamin Cayetano
Office of Environmental Quality Control
Hawai`i Congressional Delegation
U.S. Fish and Wildlife Service
National Marine Fisheries Service

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1111
23 OCT 1998

9-226

Marjorie Ziegler
Earthjustice Legal Defense Fund
123 South King Street
Fourth Floor
Honolulu, HI 96813

Dear Ms. Ziegler:

This responds to your letter of May 26, 1998, providing comments on the Pacific Missile Range Facility Enhanced Capability Draft Environmental Impact Statement (EIS), on behalf of Earthjustice Legal Defense Fund. We appreciate your review of the document and your providing a number of pertinent comments and suggestions with respect to specific resource areas.

Some of your comments suggest that the Navy should go beyond the requirements of the National Environmental Policy Act (NEPA) and its implementing Council on Environmental Quality (CEQ) regulations in providing background and supporting information to the public, extending the period of public review to enable interested parties to review this material, and engaging in extensive analysis and discussion of tangential issues. Due to mission and schedule requirements, the Navy does not intend to unnecessarily extend the process, which we believe has been fully adequate to inform the public and Navy leadership of important environmental issues and provide a basis for informed decisions.

Some of your comments question the need for the proposed action. We acknowledge that some may not agree that there is a need for Navy theater ballistic missile defense or that it needs to be conducted at PMRF. However, we believe that disagreement over the need for the program is more appropriately addressed in the political arena, not under the auspices of NEPA. In addition, this EIS is not intended to compare PMRF with other ranges that could be used for TBMD testing. Rather, as stated at page 1-3 of the Draft EIS, it responds to Congressional direction that PMRF be designated the "primary test range for the completion of Navy lower tier and upper tier missile flight tests." The Navy is evaluating the environmental impacts of enhancing the capabilities of PMRF to accommodate Navy TBMD and other TMD testing. Therefore, the only alternatives considered are the no-action alternative and the proposed action, with its sub-alternatives. However, we note that other ranges have been or are currently being evaluated under NEPA for their potential to accommodate various TMD testing activities. Figure 1.5-1, on page 1-7 of the Draft EIS outlines the relationships between the various NEPA analyses for missile defense programs.

Responses to your specific comments that address environmental issues are provided below.

You expressed concern about the continued bombing of Kaula Rock and its impact on seabirds. Our conclusion in the Draft EIS, at page 4-157 was that, while some individual migratory seabirds would be lost due to on-going gunnery training, the impacts on the population were expected to be minimal and that the populations appeared to be healthy and reproducing normally. However, the U.S. Fish and Wildlife Service has indicated that this may not reflect the current situation, since little is known concerning the bird population on Kaula Rock. We have revised Section 4.2.2.2.1.1 to reflect this lack of current knowledge as well as the potential mitigation of monitoring/surveying the bird population to determine its current health. It should be noted that, although the State has designated Kaula Rock as a State Seabird Sanctuary, it is Federal property and has been used for military purposes for some time. We also point out that Kaula Rock is no longer used for bombing practice. It is currently used only for small caliber gunnery training. To the extent that there is controversy over the environmental impacts of the no-action alternative and the proposed action, it is noted in the Executive Summary in the EIS. We do not believe that political controversy over particular programs or national priorities are appropriate for inclusion or discussion in the EIS.

Responses to Specific Comments

A.1., 2. To the extent that existing documents or studies are available and were relied on in the findings and conclusions of the EIS, they are referenced in the document and included in the list of references in Chapter 10. You noted that some references cited in the document were not included in the reference section. All references are now included in Chapter 10 with changes to the Draft EIS highlighted. There are not always existing studies or other literature relating to specific locations and resource areas. In such cases, the expertise and observations of those preparing the EIS form the basis for the findings and conclusions in the document. The names and credentials of these experts are found in Chapter 5 of the EIS. A summary of laws and regulations governing environmental resource areas is included in Appendix J, as opposed to Appendix G. We do not believe that inclusion of Senate Reports 103-321 and 103-747 in an appendix would be useful, since the pertinent parts of the reports are included in the text of Section 1.2 of the Draft EIS.

A.3.-5. The Navy circulated the entire Draft EIS, including all Appendices, for public review. 40 CFR §§1502.18 and 1502.19 do not require that reference and background material be circulated or made available for public review. In response to individual requests, the Navy made certain reference material available for review. However, the only provision in the CEQ regulations for extending the time for public review is

when only a summary of the EIS is circulated and there is a timely request for the entire statement. That is not the case here. The Navy cannot comply with your suggestion that the public comment period be extended 60 days to permit review of all supporting and background documents. NEPA does not impose this procedural burden, with its additional delays, on federal agencies. We welcome all meaningful public input and comments at any time. However, we cannot delay our NEPA process to formally consider and respond to them in the EIS.

B. The issues you raise concerning the need for the proposed action and consideration of other alternatives were discussed in the third paragraph on page 1 of this letter, above.

C.1.,2. The introductory paragraph in Section 1.1, on page 1-1, indicates that the Navy's proposal is to "enhance the capability of PMRF to accommodate the Department of Defense's (DOD) Theater Missile Defense (TMD) testing, evaluation, and training." The Background Section, 1.1.1, provides the context for the proposal, and Section 1.2 states the purpose of the proposal, which is to provide a range with sufficient capabilities to perform the testing and training mission for Navy TBMD and DOD TMD systems. It further explains that this mission would require target launches from various locations up to 1200 km from where the defensive missile systems are located. The distance can be less than 1200 km. Section 1.4., Decision(s) To Be Made, specifies two levels of decisions to be made. The first level decision will be whether to implement the enhancements at PMRF to accommodate TMD testing and training. The second level decisions will be to determine which remote sites to develop to support those enhancements. The alternative support sites that could be developed, activities that would be required to support the range enhancements, such as obtaining easements, and resolving airspace and land use issues, and the nature of the testing and training activities that would occur are described in detail in Section 2.3, at pages 2-45 to 2-91 of the Draft EIS.

TMD program development, testing and training are dynamic and complex. It is not possible to describe every possible test event or missile type or to specify the exact number of tests or the precise locations that will be required to support the program in the future. Consequently, the EIS analyzes the environmental impacts associated with a variety of test scenarios and missiles as well as those support sites, including launch sites and methods (land, sea, or air launch), that could support TMD testing and training at PMRF. We recognize the confusion that may be created by this approach, since many reviewers are accustomed to much more narrowly defined actions in NEPA analyses. We have included additional discussion in Section 2.3.4 of the EIS to more clearly summarize the proposed action alternatives and the potential decisions that will be made.

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

C.3.,4. The Navy proposes to remove from the restrictive easement text explicit references to the missiles to be launched from PMRF that require use of the restrictive easement to allow flexibility in selecting targets that will best support TMD testing as the requirements evolve. The kinds of missiles that could be used are depicted in figure 2.2.1-4, on page 2-13 of the Draft EIS. A more comprehensive list is included in Appendix A (Tables A-3 and A-7). None has greater potential environmental impacts than the STARS missile, which is one of the missiles currently named in the restrictive easement. If in the future a missile is proposed for use that would have different or greater impacts than are analyzed in this EIS, additional analysis would be conducted prior to its use.

There is no fixed number of launches of any particular missile currently planned. The mix of missiles launched from PMRF is expected to be determined on an on-going basis as missions evolve, not to exceed the current number of 30 closures of the restrictive easement per year.

C.5. The Navy is aware of treaty requirements and restrictions, and the proposed action is being developed consistent with those requirements. Each test event is reviewed for treaty compliance at the national level. There may be some restrictions on air and sea launch of targets, which is one reason land launch alternatives are also being evaluated. While a technical discussion of treaty issues would not be appropriate in the EIS, these issues will be considered by Navy decisionmakers along with other non-environmental issues.

D.1.,2.,4. See the general responses on page 1, above, and the response to D.5., below.

D.3. See Sections 4.9 to 4.11 in the Draft EIS.

D.5.,6. Sections 4.1.1.6.2.2 (Target and Defensive Missile Launches) and 4.1.1.7.1.1 (Pre-launch Operations and Launch Operations) of the Draft EIS adequately discuss impacts associated with aborted/failed launches and explain that ground hazard areas, response plans, and response teams are in place during launch operations to handle mishaps. They further explain that all hazardous materials and fuels are transported in accordance with DOT and Hawaii transportation regulations. We do not believe that including the extra detail you request concerning failure rates of various missiles, specifics concerning reaction times for flight termination, and details concerning DOT and state transportation regulations would further the objective of succinctly

describing potential environmental impacts of these activities. The purpose of the launch hazard areas is to be able to safely conduct a variety of launch activities, recognizing that an occasional, though rare mishap could occur. Allowable reaction times may vary with each missile being launched and is dependent on sophisticated modeling and analysis prior to launch activities. DOT and Hawaii regulations are designed to ensure the safe transportation of various kinds of hazardous materials, and adherence to them sufficiently demonstrates the safety of the transportation activity.

D.7., 8. The Land Use Sections of Chapters 3 and 4 of the Draft EIS describe both the existing land uses and the compatibility of the ongoing and proposed activities with existing land use plans and policies for each location. Further discussion of ceded lands is in Appendix E, Land Title. The potential effects of dredging at Tern Island are discussed in Section 4.3.1.3.2.1 of the Draft EIS. (For information purposes only, Tern Island is no longer part of the proposed action).

D. PMRF a. Section 4.1.1.1.1 of the Draft EIS discusses in detail the methodology of determining air quality impacts and the potential impacts expected. Only mission essential personnel would remain in the area encompassed by the launch hazard area at the time of missile launches. Consequently, the health impacts of air pollutants released in combustion products is measured at the launch hazard area boundary. The elevated levels of HCl 140 feet from the launch pad would not affect public health, since the public is not permitted in that area during launches. The exhaust products of representative missiles launched from PMRF are included in Table 4.1.1.1-1.

D. PMRF b. Section 3.1.1.5.2.3 of the Draft EIS discusses two soil samples which indicate elevated levels of lead. However, the remediation and cleanup goals you reference are the goals used if the future of the land is to be residences. If the future use is to be commercial or industrial, then the guideline is 1000 milligrams per kilogram. The federal property is not currently undergoing remediation or cleanup activities, nor is it required to undergo any remediation for lead. Other soil samples off base are well under both goals set by EPA and the State of Hawaii. The workers wear coveralls to prevent transferring dust to their homes.

We have not been informed of a column of water contaminated at PMRF. If you are perhaps referring to the Department of Energy's (DOE) Linking Legacies report, referenced by Michael Jones of the University of Hawaii Department of Physics, we have recently received correspondence from DOE clarifying that report. (See attached letter) The type of water contamination found on Kauai Test Facility (KTF) was not indicated in the site investigation report. Results of the KTF site investigation were submitted to EPA and EPA was able to make a decision that no further action was warranted under CERCLA.

D. PMRF c. While specific risk analyses for each vehicle proposed have not been completed for inclusion in the EIS, Range Safety Approval and Range Safety Operation Plans are and will be required for all weapons systems using the PMRF Range as a matter of course independent of the EIS process. Routine practice by PMRF includes notices to mariners and surveillance of the hazard area to determine it is clear. With these practices and adherence of mariners to these warnings, minimal risk exists to public safety from these activities.

The December 1988 incident is regrettable. The incident did occur within W-188, a warning area, utilized for military training operations. However, the operation was not under the control of PMRF and it was not launched from KTF or any facilities at PMRF and therefore is not appropriately included in PMRF risk calculations.

D. PMRF d., e. Section 4.1.1.3 of the Draft EIS discusses potential impacts to the humpback whale and other marine mammals as well as the unknowns concerning impacts from noise. There are no plans or procedures to time launches to avoid breeding and calving season for the humpback whale, since our analysis and consultations with the National Marine Fisheries Service (NMFS) has not identified adverse impacts to the whales from launch activities. Section 4.1.1.3.1.3 describes the studies that the Navy is conducting to obtain more information concerning potential noise impacts to marine mammals. The EIS and Management Plan for the Hawaiian Islands Humpback Whale National Marine Sanctuary indicated that the Navy has consulted with NMFS concerning its activities in Hawaiian waters and concluded that "no adverse effects to listed species were identified, provided that certain mitigative measures were instituted by the various commands active in areas where humpback whales occurred." (p. 191). These mitigative measures include determining if an area is clear and if not moving to a different area. These measures are being implemented by the Navy in its off-shore activities.

Regulations implementing designation of the Sanctuary specifically recognize that all existing military activities internal or external to the Sanctuary are authorized, as are new military activities following consultation with NMFS. (62 FR 14816, 15 CFR § 922.183). This information has been included in Section 3.1.1.3.2.3 of the EIS.

D. PMRF f., g. Section 4.1.1.3 of the Draft EIS discusses potential impacts to bird populations. We have concluded, based on evaluations in the Strategic Target System EIS (1992) and subsequent experience and surveys, that current and proposed activities at PMRF do not pose a threat to bird or other animal populations in the area. Nevertheless, several protective measures are identified in the Draft EIS, including shielding outdoor lighting to avoid attracting Newell's shearwaters and surveying water and beach areas within safety zones to avoid launches while monk seals are present and to avoid sea turtle nests during activities involving transport vehicles. You do not indicate what tests you refer to as evidence that noise similar to that of missile launches has resulted in permanent hearing loss to birds and we are,

consequently, unable to evaluate them for their applicability to PMRF launch activities.

D. PMRF h. Section 4.1.1.3 of the Draft EIS adequately discusses impacts to reef areas, sea turtles and marine mammals.

D. PMRF i. Section 4.1.1.3 of the Draft EIS adequately discusses the impacts of development, lights, and human activities to seabirds.

D. PMRF j. According to an agreement between USFWS, U.S. Department of Agriculture (USDA), and the Navy, USDA personnel remove animals from the runway area and transfer them to another part of the base or to the Kilauea National Wildlife Refuge.

D. PMRF k. The Draft EIS describes resources which we have determined may be affected by activities at PMRF, wherever located. You have not provided any specifics concerning natural communities warranting evaluation outside of the restrictive easement.

D. PMRF l. Your comment concerning coral reefs thriving without the assistance of Navy torpedoes has been incorporated in Section 4.1.1.3.1.4 of the EIS.

D. PMRF m. PMRF is DOD property and is not subject to State restrictions or permitting relating to the Conservation Use District. Compatibility of PMRF activities with surrounding land use designations is discussed in Section 4.1.1.8 of the Draft EIS.

D. PMRF n. As stated in Section 3.1.1.4 of the Draft EIS, the Navy recently completed a Cultural Resources Management Overview Survey of PMRF to establish an inventory of cultural resource properties. It served as the basis for development of an Integrated Cultural Resources Management Plan, currently being developed, for the long-term management of historic resources at PMRF. The Navy is in the process of establishing an MOA in consultation with the State Historic Preservation Officer for cultural resource management related to the proposed action as well as a programmatic agreement to address long-term PMRF activities.

D. PMRF o. As stated in Section 4.1.1.8 of the Draft EIS, both existing and proposed activities at PMRF are compatible to the maximum extent practicable with the Hawaii Coastal Zone Management Program. Your comment does not indicate the nature of the conflicts you believe to exist between PMRF activities and the objectives of the Act.

D. Niihau a. The presence of the Hawaiian duck, black-necked stilt, American/Hawaiian coot, common moorhen, Hawaiian monk seal, and green sea turtle at Niihau is noted in Section 3.2.1.3.2.3 of the Draft EIS. Section 4.2.1.3 describes potential impacts to these species from on-going and proposed activities on Niihau. Neither the on-going nor proposed activities would occur in the vicinity of the lakes (playas) on the southern part of Niihau, where the endangered birds are found. This information is in Section 4.2.1.3.2.1 of the EIS.

D. Niihau b. The response to your comments D.5 and 6 address your concerns about risks from aborted launches and accidents. As stated in Sections 4.2.1.3.2.2 and 4.2.1.4.2 of the Draft EIS, the probability of fire occurring as a result of Navy activities is remote. In the event of fire, the impacts would be limited, due to the non-native character of vegetation near proposed sites. However, Section 4.2.1.7.2 of the EIS now includes additional information concerning fire-fighting capability on Niihau during Navy activities.

D. Niihau c. As stated in Section 4.2.1.6 of the Draft EIS, hazardous materials, including missile propellants, would only be brought onto Niihau when required for use and would not be permanently stored on the island. Hazardous wastes would be shipped off the island for proper disposal. Consequently, natural disasters, such as hurricanes, would not cause serious problems involving hazardous materials and chemicals.

D. Niihau d. As discussed in Section 4.2.1.4, Section 106 consultation for both recurring and proposed activities on Niihau will be conducted as part of this EIS process. Any necessary mitigations resulting from this consultation would be implemented. All personnel conducting activities on the island would be briefed on cultural resource issues and legal requirements and restricted to non-sensitive areas.

D. Niihau e. Section 4.2.1.8.2 of the Draft EIS discusses land use issues and compatibility and states that activities associated with the proposed action would be consistent to the maximum extent practicable with the Hawaii Coastal Zone Management Program. Your comment presumes but does not identify any conflicts between the proposed action and the objectives of the State's Conservation District.

D. Niihau f. The Navy's analysis presumes the continued private ownership of Niihau. We are not aware of any serious prospect that the island will be sold or that the current land tenure will change. We do not find it necessary or useful to speculate concerning the island's future.

As mentioned above, Tern Island has been deleted from the proposed action. The following addresses your concerns and has been retained/updated for informational purposes only.

D. Tern a., b. Section 3.3.1.3 of the Draft EIS describes the existing wildlife species and habitats at Tern Island, including the monk seal. Section 4.3.1.3 discusses the

potential impacts to monk seals and other wildlife as a result of possible future Navy activities, including impacts from noise and increased human presence. Sections 2.3.1.3 and 2.3.4 have been revised to more clearly state that Tern Island and Johnston Atoll are considered fall-back options to the preferred use of aircraft and mobile sea platforms to launch target missiles. In addition, the maximum number of launches considered for Tern Island would be 4 per year. Consultation with the National Marine Fisheries Service and the Marine Mammal Commission have indicated that Tern Island is not a primary pupping site for monk seals. Section 3.3.1.3.2.4 and 4.3.1.3.2.2 have been revised to reflect this and the fact that mortality to pups is most likely from disturbing male seals such that they leave Tern Island and move to one of the other islands in the French Frigate Shoals where pupping does occur.

D. Tern c. As discussed in Section 4.3.1.3.2.2 of the Draft EIS, the impacts of noise on wildlife are not well understood. We recognize that launch noise could have effects on monk seals. However, since no more than four launches per year would occur from Tern Island, four high magnitude short term events would not be expected to jeopardize the species.

D. Tern d. Sections 4.3.1.3.2.1 and 4.3.1.3.2.2 of the Draft EIS recognizes the possible adverse effects to monk seals from dredging at Tern Island if the dredging resulted in the increase of *Cigutera* in the water due to increased turbidity. These sections have been revised to more clearly reflect that prior to dredging activities additional biological and geological surveys would be performed in consultation with USFWS and NMFS to identify and adopt necessary mitigations.

D. Tern e. Section 4.3.1.3.2.2 of the EIS reflects that use of Tern Island as a target launch location would likely require a permit from NMFS as well as that a compatibility determination would be requested from the USFWS.

D. Tern f. Pacific Eco-Region FWS, including refuge managers for Tern Island, have participated throughout the analysis process reflected in the EIS. In addition to providing input on the suitability of the various islands within the Northwestern Hawaiian Islands, they helped identify where on Tern Island would be the preferable location for a launch pad if one were necessary.

D. Tern g. The Hawaiian Monk Seal Recovery Plan (HMSRP) was reviewed as a part of the analysis of proposed activities at Tern Island in the French Frigate Shoals. The objectives of the plan are stated as follows:

> (1) Identify and, where possible, mitigate the natural factors causing or contributing to the decreased survival and productivity of monk seals;
>
> (2) Characterize the marine and terrestrial habitat requirements of monk seals, including use patterns and feeding habits;
>
> (3) Assess the monk seal population and monitor population trends;
>
> (4) Document and where possible, mitigate the direct and indirect effects of human activities on monk seals;
>
> (5) Implement appropriate management actions leading to conservation and recovery of the species; and,
>
> (6) Develop an educational program to foster greater conservation efforts among users of the Northwestern Hawaiian Islands and the public.

We have concluded that no direct conflict exists with the HMSRP and some parts of the proposed action and associated mitigation measures serve to support the plan. A slight increase in human activity at Tern Island in the French Frigate Shoals would occur for a short period, up to four times per year. The potential adverse effects would be primarily startling of seals for very short periods of time during each launch potentially resulting in pup mortality. No other effects have been identified which cannot be mitigated. Furthermore, the establishment of a portion of the sea-wall to construct a launch pad would directly support objective (1). Tern Island is severely eroding to the point that the continued existence of the habitat is at risk. Additionally, although not directly tied to decisions on the use of Tern Island, activities at Niihau include the potential surveying of monk seal populations by the residents. This surveying would be done in accordance with NMFS protocol and the resulting data would be provided to NMFS to support their assessment and understanding of monk seal populations in Hawaii. This activity would serve to support directly objectives (3) and (6).

With the assistance of USFWS and NMFS, potential siting for the proposed launch locations at Tern Island were identified with consideration to minimizing effects to monk seals, including avoidance of limiting access to selected haul-out locations and limiting research activities. No other islet at French Frigate Shoals would be affected by the proposed activities.

D. Tern h. Information concerning the potential effects of night launches, light, and associated human activity has been added to Section 4.3.1.3.2.2.

D. Tern i. We believe that Section 4.3.1.3 of the Draft EIS adequately discusses the potential impacts to nesting seabirds at Tern Island.

D. Tern j. Section 4.3.1.3.2.2 of the EIS has been revised to reflect that potential mitigation includes following procedures to prevent additional introduction of terrestrial and marine alien species at Tern Island.

D. Tern k. Section 4.3.1.8.2.1 of the Draft EIS discusses the issue of compatibility of possible Navy activities at Tern Island with the purposes of the Hawaiian Islands

National Wildlife Refuge. As noted earlier the EIS will reflect that use of Tern Island as a target launch location would likely require a permit from NMFS as well as that a compatibility determination would be requested from the U.S. Fish and Wildlife Service.

D. Tern l. As at Niihau, hazardous materials, including missile propellants, would only be brought onto Tern Island when required for use and would not be permanently stored on the island. Hazardous wastes would be shipped off the island for proper disposal. Consequently, natural disasters, such as hurricanes, would not cause serious problems involving hazardous materials and chemicals.

D. Tern m. Although within the State's Conservation District, Tern Island is Federal property under the jurisdiction of the Fish and Wildlife Service. Compatibility with its refuge status is the major issue with respect to Navy Activities. However, as noted in Section 4.3.1.8.2.1 of the Draft EIS, the activities on Tern Island would be consistent to the maximum extent practicable with the Hawaii Coastal Zone Management Program.

As mentioned above, Johnston Atoll has been deleted from the proposed action. The following addresses your concerns and has been retained/updated for informational purposes only.

D. Johnston Atoll a. As noted in Section 3.3.2.3.2.3 of the Draft EIS, only a few monk seals are known to frequent Johnston Atoll and the NMFS has indicated that no breeding or pupping is known to occur there. Green sea turtles are known to feed on the algae beds on the south side of Johnston Atoll, although they do not nest at Johnston Atoll. Navy activities would not occur in areas frequented by sea turtles. Potential launch sites are on North and East Islands, well removed from such areas. While there have been sightings of humpback whales outside of the reef, as stated in Section 4.3.2.3.2.2, the likelihood of launch or intercept debris hitting a whale or otherwise having an adverse impact is very remote. The potential impacts to seabirds and shorebirds are adequately discussed. It should be noted that the Johnston Atoll National Wildlife Refuge is under the administrative jurisdiction of the Department of Defense.

D. Johnston Atoll b. As with Tern Island, the Navy would follow existing procedures to prevent additional introduction of terrestrial and marine alien species at Johnston Atoll.

D. Johnston Atoll c. Our understanding of the monitoring program is that it measures impacts of the JACADS facility. Since our proposed action is in no way related to the JACADS facility, we do not believe that these results are necessary for evaluation of potential impacts of launches at Johnston Atoll.

D. Johnston Atoll d. While Tern Island is part of a National Wildlife Refuge, Johnston Atoll falls into a slightly different category. By E.O. 6935 dated December 29, 1934, Johnston Atoll is designated for use by Department of Defense (DOD). A good working relationship between DOD and USFWS has successfully allowed maintenance of an overlay refuge and breeding grounds for native birds at Johnston Atoll for many years, as is the case for a number of other DOD installations. In fact, DOD funds the necessary USFWS activities to maintain the refuge.

D. Johnston Atoll e. As noted in Section 3.3.2.6.2 of the Draft EIS, the JACADS facility is scheduled to complete the demilitarization of chemical munitions by December 1999. While the ground hazard area for launch activities does not include the JACADS facility, there would be close coordination with the Chemical Demilitarization Program to ensure that operational and safety requirements are followed.

D. Johnston Atoll f. Section 4.3.2.6.2 indicates that hazardous materials for Navy activities would not be permanently stored on site, but would only be brought to the Atoll when needed. Hazardous waste generated would be removed after activities are completed. Consequently, hazards from hazardous materials caused by hurricanes or other natural disasters would be minimized.

D. Johnston Atoll g. Sections 3.3.2.6.2 and 4.3.2.6.2 of the Draft EIS adequately discuss existing contamination at Johnston Atoll and the potential impacts from missile launch activities.

Thank you for your comments. We would welcome continued input on specific ways that the Navy could mitigate or avoid environmental impacts from its on-going or proposed activities.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0286

9-232

ATTACHMENT

Department of Energy
Washington, DC 20585

June 4, 1998

Mr. Ted Wolff
Sandia National Laboratory
Albuquerque, NM 87185-1313

Subject: ***Linking Legacies* and the Kauai Test Facility**

Dear Mr. Wolff:

Thank you for your recent inquiry concerning Kauai Test Facility (KTF) data listed on pages 79, 81, and 209 of the Department of Energy report *Linking Legacies, Connecting the Cold War Nuclear Weapons Production Processes to Their Environmental Consequences (report number DOE/EM-0319)*. Before I provide the background necessary to address your concern, let me first unequivocally state that the Department of Energy has never introduced, nor has plans in the future to introduce nuclear weapons, materials, or waste to the Kauai Test Facility.

The *Linking Legacies* report was compiled to address Congressional language in the 1995 National Defense Authorization Act directing the Department of Energy (DOE) to describe the waste streams generated by each phase of the nuclear weapons production process. The Office of Environmental Management examined its materials in inventory, surplus facilities, contaminated environmental media, and wastes and attributed them to nuclear weapons production processes and to non-weapons processes.

Non-weapons processes included Department of Energy and predecessor agency missions that were unrelated to the nuclear weapons program, such as the civilian nuclear power program and the naval nuclear propulsion program. Weapons production processes were further divided into eight steps:

- Uranium Mining, Milling, and Refining
- Isotope Separation (Enrichment)
- Fuel and Target Fabrication
- Reactor Operations
- Chemical Separations
- Weapons Component Fabrication
- Weapons Operations
- Research, Development, and Testing

The KTF's existence is mandated by Safeguard C of the 1963 "Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water" (Limited Nuclear Test Ban Treaty). Congress imposed the safeguard to ensure that certain Pacific support facilities, including the Kauai test facility, be maintained to support the resumption of nuclear testing if world events make it necessary. Although no nuclear weapons were ever launched from KTF and none are proposed, KTF rockets with high altitude instrumentation probes which gather data during nuclear events would once again be launched if nuclear testing were to resume in other

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Pacific locations. As such, contaminated environmental media at KTF fall within the weapons production category because the mission supported Research, Development, and Testing of nuclear weapons. Test sites in the Research, Development, and Testing step are broken out into nuclear and non-nuclear sub-categories in Appendix B (page 206) and Appendix C (page 209) to differentiate KTF and other test sites that did not contain radioactive materials from sites where nuclear events actually occurred.

The report (p. 79-81) identifies 1,400 cubic meters of contaminated solid media and 5,700 cubic meters of contaminated water present at the facility. In the tables where these values appear in *Linking Legacies*, the report does not indicate the type of contamination (the volumes listed include the total hazardous chemical and/or radioactive and or mixed constituents as well as the affected media). These inventories were provided by the Office of Environmental Restoration's Core Database (1996 version), which indicates that all KTF volumes stipulated contain only chemically hazardous constituents, and no radioactivity.

Although not addressed in *Linking Legacies*, the Department of Energy submitted the results of the Kauai Test Facility site investigation to Region 9 of the Environmental Protection Agency (EPA) on May 3, 1995. Two of the three release sites identified, a drum storage rack and a photo shop, did not exhibit contamination above background levels. The third release site, a rocket pad area, exhibited concentrations of arsenic (96 parts per million) and lead (270 parts per million) that exceeded background levels but were below EPA action levels. No evidence of radioactive contamination was evidenced anywhere at this site. A No Further Action decision was issued by the EPA to KTF on October 30, 1996.

I hope this information helps clarify the information about the Kauai Test Facility in *Linking Legacies*. If you require further information related to the *Linking Legacies* document, please contact Steven Livingstone of my staff at (202) 586-9874.

Sincerely,

Dan Berkovitz
Deputy Assistant Secretary
Office of Planning, Policy and Budget

ATTACHMENT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

September 30, 1996

Mr. John Gould
U.S. Department of Energy
Albuquerque Operations Office
P.O. Box 5400
Albuquerque, New Mexico 87115

OCT 0 3 1996

RE: Kauai Test Facility EPA ID No.: HID984469908

Dear Mr. Gould:

Enclosed are the results of the Site Inspection (SI) documentation review by the U.S. Environmental Protection Agency for the U.S. Department of Energy regarding the Kauai Test Facility. The purpose of the review was twofold: 1) to determine if the facility meets CERCLA requirements as defined in Section 120; and 2) to determine if site conditions at the facility pose a significant threat to human health and the environment such that it warrants placement on the National Priorities List (NPL).

You have submitted enough information for the EPA to certify that the SI requirements have been met for the facility. This decision will be entered into the CERCLIS database. Based on the submitted information, EPA was able to make a decision that no further action is warranted at this time under CERCLA. You should be aware that if additional information is provided to the EPA that impacts the status of the no further action decision, this site may be reevaluated. A copy of our evaluation is enclosed.

EPA is referring this site to the State of Hawaii Department of Health's Hazard Evaluation and Emergency Response Office for any further oversight. EPA is recommending that periodic reevaluation for environmental contamination from or at this site is warranted, particularly because of the continued use of the Launcher Field which contains 16 launcher pads. The exhaust and explosions associated with rocket launches are the primary causes of metals and other hazardous chemical releases at the Launcher Field. Of some concern is potential contamination after heavy rainstorms in the water runoff from the Launcher Field into the ditches that empty into the ocean approximately 2 miles south of the site. The downstream pathway includes habitat for several federally designated endangered or threatened species. Please see the enclosed report for further details.

Should you have any questions pertaining to this matter, please contact me at (415) 744-2328 in the EPA Region IX Superfund Office of State Planning and Assessment Section.

Sincerely,

Michael Ardito

Michael Ardito
Hawaii State Project Officer for Superfund

Enclosure

cc: Steve Armann, Hawaii Department of Health, HEER Office

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P-W-0292

SIERRA CLUB

Kaua'i Group of the Hawai'i Chapter
Post Office Box 3412
Lihu'e, Kaua'i, Hawai'i 96766

May 22, 1998

To the Department of the Navy,

The Sierra Club believes that there can be no compromise in the form of mitigations that would make the Navy's expanded operation compatible with the present tranquillity and security of the Northwestern Hawaiian Island National Wildlife Refuge. Since the refuge is mandated to advance the recovery of threatened and endangered species such as the Hawaiian monk seal, any military activity there would be in violation of the mission of the refuge and the Endangered Species Act.

According to the Endangered Species Act, any species which is in danger of extinction throughout all or a significant portion of its range may be listed as an endangered species. The Hawaiian monk seal is on the Federal list of endangered species, and the green sea turtle is listed as threatened with the Federal government and endangered with the State. The law mandates the active recovery of both threatened and endangered species. The responsibility to safeguard them and their critical habitat is inviolable. There can be no justification to subject them to any harm or to endanger their existence as a species. The Navy's proposed TBMD exercises could push the Hawaiian monk seal, the green sea turtle, and other wildlife to extinction.

Responses in the DEIS to the Marine Mammal Commission's concerns about the further imperilment of the Hawaiian monk seals' survival or recovery, and the possible effects of the proposed action on the species and their critical habitat do not offer any reassurance. Comments by the Marine Mammal Commission such as "...we find it difficult to imagine how it would be possible to develop and operate one or more launch sites on any of the Northwestern Hawaiian Islands that contain a major monk seal breeding colony without having a significant negative impact on the recovery of Hawaiian monk seals" were merely responded with, "While there may be some impacts to the monk seal, as documented in the DEIS, with the limited number of launch events at Tern Island (4) and the short-term nature of the events, the species is not expected to be jeopardized". The Marine Mammal Commission asked about the affects of sonic booms. The DEIS admitted, "sonic booms could affect monk seals hauled out on islands downrange that could startle monk seals and cause them to flee into the water. This could injure pups and put adults, pups, and juveniles at risk to shark predation." but then stated, "Because of the limited number of launch events (4 per year), this effect is not expected to jeopardize the species." Another concern of the Marine Mammal Commission was about the construction and operation of missile launching sites in the Northwestern Hawaiian Island causing significant and unavoidable adverse impacts on Hawaiian monk seals. The DEIS response was "While there may be some impacts to the monk seal... the species is not expected to be jeopardized." There are numerous

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other instances where the phrase "the species is not expected to be jeopardized" is used. This expectation is not based upon fact. It is an assumption, without any substantiating evidence. We cannot let an assumed belief put the very survival of the Hawaiian monk seal, the green sea turtle, and other wildlife at risk. We cannot afford to play a let's wait and see what will happen guessing game when it comes to threatened and endangered species.

The Hawaiian monk seals' population is precariously low. There are only 1,300 remaining Hawaiian monk seals, according to the Marine Mammal Commission's estimate, which is about one half of their population back in the 1950's. Ninety per cent of all the monk seal births take place in the Northwest Hawaiian Islands. Tern Island located in the French Frigate Shoals, within the Northwest Hawaiian Islands provides critical habitat for monk seals as a National Wildlife Refuge. Last year researchers at the seals' prime breeding ground in the French Frigate Shoals counted 97 pups early in the season. Months later, at least 63 had died or were presumed dead. With a high mortality rate under normal conditions, what can be expected to happen when their environment becomes hostile? When the Navy expanded its air base in the 1950's a major monk seal colony at Midway Atoll disappeared. With the Hawaiian monk seals' declining population there is clearly cause for grave concern for their continued existence with the Navy's proposed operations.

We urge that the wildlife refuge located on Tern Island not be considered as a possibility for the Navy's project as it would have the devastating effect of setting a terrible precedent for the future of our wildlife refuge systems and become a cause of further erosion of the public's good faith in our governmental management of public trust resources.

In care of the earth,

Judy Dalton

Judy Dalton
Conservation Co-Chair
Kaua`i Group,
Sierra Club

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1 1 15
23 OCT 1995

Ms. Judy Dalton
Kauai Group
Sierra Club
PO Box 3412
Lihue, Kauai, HI 96766

Dear Ms. Dalton:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS). We share your concern about endangered species, particularly the monk seal and green sea turtle.

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

Let me assure you that those of us who have the privilege of working at PMRF want to do everything we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0292

P-W-0302

UNION OF CONCERNED SCIENTISTS

May 21, 1998

Ms. Vida Mossman
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Hawaii 96752-0128

Dear Ms. Mossman,

I would like to submit the attached report as a comment on the Pacific Missile Range Facility (PMRF) Enhance Capability Draft Environmental Impact Statement (DEIS).

The report is a technical assessment of the Launch Hazzard Area proposed for test flights from Cudjoe Key, Florida. The information, methodology, and results in that report are also of interest to the PMRF case. I am aware that at least one other set of comments submitted to you on the DEIS refer to this report.

Sincerely,

David Wright, PhD
Senior Staff Scientist

Cambridge Headquarters: Two Brattle Square • Cambridge, MA 02238-9105 • 617-547-5552 • FAX: 617-864-9405
Washington Office: 1616 P Street NW Suite 310 • Washington, DC 20036-1495 • 202-332-0900 • FAX: 202-332-0905
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A Technical Assessment of the Launch Hazard Area in Cudjoe Key, Florida

David C. Wright[a]
Union of Concerned Scientists &
Security Studies Program, MIT

March 6, 1998

Summary

The US Ballistic Missile Defense Organization (BMDO) has been considering using a site in Cudjoe Key, Florida to launch Hera test missiles as part of the program to develop theater missile defenses.

A standard safety precaution is to define a launch hazard area (LHA) around a missile launch site that represents a area that might be showered with debris in the event of a malfunction during the launch of the missile. If the LHA of a proposed launch site would include areas containing schools, housing, etc., the location cannot be used as a launch site.

The Army has stated that the nominal LHA for Hera missile launches is 4.5 miles (7.2 kilometers) in all directions around the launch site.[1]

The LHA determined by BMDO for the Cudjoe Keys launch site, however, extends only about 1.5 miles (2.4 km) in the direction opposite to the planned flight path of the missile.[2] If the LHA were larger in that direction, it would include homes and the launch site would not be allowed.

The purpose of this assessment is to understand if a reduction in the LHA by a factor of three—from a nominal 4.5 miles to 1.5 miles—can be justified on technical grounds. It describes a technical analysis of where debris could land as a result of malfunction and termination of a launch of a Hera missile early in flight.

This analysis concludes that an LHA of 1.5 miles is not justified on technical grounds. There appear to be possible malfunctions of the Hera missile that could result in debris outside the 1.5 mile LHA even if the flight is terminated very early. While the probability of such a malfunction is not known, similar events have occurred in the recent past. These results therefore mean that the official launch hazard area determined by BMDO for the proposed Cudjoe Key site is too small.

[a] David Wright is a Senior Staff Scientist at the Union of Concerned Scientists in Cambridge, MA and a Research Fellow in the Secuity Studies Program at MIT. He received his Ph.D. in physics from Cornell University in 1983. One of his main areas of expertise is the technical analysis of missile systems.

Determining the Launch Hazard Area

The military's description of how a launch hazzard area (LHA) is determined can be found on the Eglin Air Force Base web site at tw1.eglin.af.mil/46mtd/lha.htm. The first step is to determine the LHA in the absence of wind, which could shift the debris pattern. The description states:

> "Certain areas cannot be located within an LHA. Examples include housing, schools, and office buildings. If a protected area lies within the calculated *Debris Hazard Area—No Wind* for a proposed site, *then that site cannot be used for missile launches.*" (emphasis original)

While wind may shift the pattern of debris and increase the size of the LHA for a particular launch depending on weather conditions, it cannot decrease the size of the LHA from the "LHA-No Wind" (called the "Debris Hazard Area—No Wind" above). Thus if a calculation of the debris pattern from an aborted launch in the absence of wind shows that debris could fall on the protected areas listed above (housing, schools, and office buildings), the launch site cannot be used. As a result, the calculations in this paper are done assuming there is no wind.

Calculating the LHA-No Wind

The Eglin web page states that the LHA-No Wind is determined by a computer model that calculates where debris would land if the missile had to be destroyed after launch. The computer model attempts to take into account malfunctions of the missile that send the missile off its intended course. The LHA description states:

> "Every five seconds of flight, the model forces the missile off its flight path for five seconds."

The computer then calculates where debris from a missile destroyed at that time would land, and that information is used to calculate the LHA-No Wind. In response to questions on this point, the BMDO has said that early in flight it might not wait for five seconds after a malfunction to terminate the flight but could do so a couple of seconds earlier.

Checking the BMDO's Calculation of the LHA-No Wind at Cudjoe Key

The details behind the BMDO's calculation of the LHA-No Wind at the Cudjoe Key site are not publicly available. However, considerable information is known about the Hera test missile, allowing the trajectory of the missile to be calculated under normal operating conditions and under various types of malfunctions. Assuming a missile launch is aborted at some point on the trajectory, the pattern of debris can be calculated using standard assumptions about atmospheric drag on the debris.

In my calculations I have assumed reasonable "worst-case" malfunctions of the Hera missile that should be taken into account in determining the LHA-No Wind. These calculations are described in detail in the Appendix.

Results of the Calculations

The calculations described in the Appendix show that reasonable assumptions about possible malfunctions of the Hera missile would result in debris falling 1.6-2.1 miles or farther behind the launch site. Thus, this debris would land outside of the official LHA-No Wind that has been presented by BMDO for the Cudjoe Key site.

These results therefore mean that the official LHA-No Wind determined by BMDO for the proposed Cudjoe Key site is too small.

What is the probability of malfunction of the missile?

The probability of a malfunction that would cause a Hera missile to veer out of control is not publicly known. However, there are numerous examples of such a malfunction. The news report of a malfunction of an Aries rocket in 1991 that is attached at the end of this report gives an example of such a malfunction, in that case caused by a software rather than hardware problem.

It is, however, possible to say something about the overall reliability of Minuteman missiles. Since the Hera missile consists of the upper two stages of a Minuteman II missile, these reliability figures may give some indication of the reliability that can be expected of Hera. It is important to keep in mind, however, that there are many failure modes that do not involve the guidance and control system of the missile, which is the failure mode considered here. In most cases discussed below, the failure mode is not publicly known.

- Between 1969 and 1989, the Minuteman II missile underwent 101 operational test and evaluation (OT&E) flight tests.[3] Of these, 15 were failures, giving a reliability of 85%.

- Between 1971 and 1989, the Minuteman III missile, which is an upgrade to the Minuteman II, underwent 136 OT&E flight tests.[4] Of these, 17 were failures, giving a reliability of 87.5%.

- Between 1985 and 1992, there were 12 launch attempts for Minuteman I missiles[5] that had been refurbished for use as space launch vehicles in much the same way that Minuteman II components have been refurbished for use in Hera. On two of these flights (20 January 1987 and 24 October 1992) the missile malfunctioned and was destroyed during flight by a range safety officer. A third launch attempt (20 January

1992) failed when the first stage motor failed to ignite. Thus for this eight-year period, the reliability was 9 of 12, or 75%. Even ignoring the launch that never got off the ground gives a reliability of 9 of 11, or 82%.

References

[1] US Army Space and Strategic Defense Command, *Theater Missile Defense Hera Target Systems: Environmental Assessment*, January 1994, p. 1-30; US Army Space and Strategic Defense Command, *Wake Island: Environmental Assessment*, January 1994, p. 1-21; US Army Space and Strategic Defense Command, *Theater Missile Defense Extended Test Range: Draft Environmental Impact Statement*, January 1994, p. 2-16.
[2] *Theater Missile Defense Extended Test Range Supplemental Environmental Impact Statement - Eglin Gulf Test Range (draft)*, prepared for Major Thomas J. Kennedy, Director of Test, Theater Missile Defense, Eglin AFB, FL, 6 February 1998, 3-428.
[3] Steven Flank, "Flight Test Restrictions and Reliability Analysis for Ballistic Missiles: An Analytic Framework," May 1991, unpublished.
[4] Ibid.
[5] The launch dates were obtained from Jeffrey Geiger in the Base Historian's Office at Vandenberg Air Force Base (personal communication, 14 December 1992).

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Appendix: Description of Calculation Of Debris Dispersion

Calculation of the Nominal Hera Trajectory

The technical parameters for the Hera missile are well known from several sources.[1] The Hera is built from surplus Minuteman missile components. For the two-stage version of the Hera, the first stage is an SR19 booster, which is the Minuteman II second stage. This stage has a total mass of 16,000 pounds (lb) (7.270 metric tonnes (te)), contains 13,725 lb (6.236 te) of propellant, and has a nominal burn time of 64 seconds. The motor generates approximately 56,100 lb (250,000 newtons) of thrust. This stage is roughly 11 feet (3.4 meters) long and has a diameter of 4.3 feet (1.3 meters).

The second stage is an M57A1 booster, which is the Minuteman II third stage. This stage has a total mass of 4,422 lb (2.010 te), contains 3,650 lb (1.659 te) of propellant, and can burn for up to 60 seconds. This motor generates a thrust of roughly 16,900 lb (75,000 newtons). This stage is roughly 7 feet (2.1 meters) long and has a diameter of 3.3 feet (1 meter).

The Hera payload section has a mass of roughly 3400 lb (1.55 te), and is roughly 10 feet (3 meters) long.

Given these technical parameters, one can integrate the equations of motion on a computer to calculate the trajectory of the missile. The program used for these calculations includes an atmosphere and calculates the effects of atmospheric drag on the missile trajectory using standard methods.[2]

Using the parameter values given above, these calculations give a trajectory essentially identical to that provided by the Air Force for the nominal Hera trajectory.[3] In these calculations, I have assumed the Hera travels vertically for a short time (5 seconds) before lateral thrust is applied to begin turning the missile. (I also considered a case in which the missile flies vertically for only 3 seconds and found that the results are insensitive to this number.)

Estimation of Debris Pattern After a Missile Malfunction

This section describes how I calculated the debris pattern from an aborted launch. Some relevant details of the missile, such as the maximum turn it can undergo, are not publicly

[1] "The Hera Target Missile," Ballistic Missile Defense Organization (BMDO) Fact Sheet 96-018, April 1996; David Hughes, "Hera to Challenge THAAD this Month," *Aviation Week and Space Technology*, 11 March 1996, 59; Thomas Cochran et al., *Nuclear Weapons Databook, Volume 1: US Nuclear Weapons* (Cambridge, MA: Ballinger, 1983), p. 113.

[2] For a description of the program, see L. Gronlund and D. Wright, "Depressed Trajectory SLBMs," *Science and Global Security* 3, 1992, 101-160.

[3] This data was provided to Mr. Dennis Henize by Maj. Thomas Kennedy, Theater Missile Defense Test Manager, Eglin Air Force Base.

available. However, it is possible to estimate these parameters to give highly plausible predictions of the debris pattern.

The LHA is calculated by assuming the missile undergoes what the military calls a "worst turn" at various points along the missile trajectory. A "worst turn" is a turn that the missile is physically capable of achieving and that is the most problematic in terms of dispersing debris. The missile is then allowed to travel in that direction for five seconds before the flight is aborted.

When the flight is aborted, pieces of the missile will follow ballistic paths to the ground, with the path of each piece determined by its ballistic coefficient[4] (weight-to-drag ratio) and its speed and direction at the time of thrust termination of the missile. The LHA-No Wind is then determined by considering such "worst turns" in all directions away from the intended path and finding an envelope outside of which none of the debris falls.

BMDO officials have stated that, early in flight, the flight might be terminated before the missile is allowed to travel for five seconds after a "worst turn." In the calculations in this paper, we assume the flight is aborted only three seconds after a "worst turn."

I consider a particular case in which the missile flies on the nominal Hera trajectory for nine seconds. At that point the missile is travelling at about 417 ft/s (127 m/s) and is at an altitude of about 1970 ft (600 meters). The velocity vector is about 84.5 degrees with respect to the horizontal. A malfunction is assumed to occur at that point in the missile's guidance and control system that causes the missile to begin to turn in the opposite direction (still in the plane of the trajectory) for three seconds. The turning is caused by aerodynamic lift forces on the missile body that result when lateral thrust of the rocket motor generates a non-zero angle of attack. Since this is occurring at low altitudes where the atmospheric density is large, the lift forces are strong and can cause the missile to turn rapidly. The majority of the missile's thrust, however, is still accelerating the missile. After three seconds, the missile's speed has increased to 558 ft/s (170 m/s) and it has climbed to about 3280 ft (1 km) in altitude, and is approximately above the launch point. We assume that the "worst turn" results in the missile velocity being at an angle of 40-45 degrees with respect to the horizontal, which would maximize the dispersal of debris.

There is good evidence that the missile could withstand such a turn, based on the behavior of the Trident II missile on 21 March 1989, when it failed its first launch attempt at sea. (See figure 1.) A malfunction of the guidance and control system caused the missile to fly in a circle of roughly 300 foot (90 meter) diameter, and it did so for a short time without breaking up. Eventually, as the missile began to spiral inward, the turning rate and resulting atmospheric forces became high enough that the missile broke apart. However, an analysis of the Trident trajectory shows that the middle part of its flight occurred at atmospheric densities and at speeds comparable to those in the Hera case described above. This strongly suggests that the Hera could undergo a turn of the type assumed above without breaking up before the flight is aborted.

[4] The ballistic coefficient ß is defined as $ß = W/C_DA$, where W is the weight of the object, C_D the drag coefficient, and A is the projected area perpendicular to the motion of the object.

The scenario described above gives the location (range and altitude) and the magnitude and direction of the missile's velocity when the flight is aborted. To calculate the debris pattern, one then needs to estimate the ballistic coefficients of the debris. At the speeds and altitudes considered, debris with dimensions greater than a few centimeters should have Reynolds numbers above the critical value. In this regime, the drag coefficient[5] for spheres is approximately 0.1, and for cylinders is approximately 0.3. For specificity, I assume that the payload section of the missile separates from the missile when the flight is terminated, but remains intact. Using this value of 0.3 gives a ballistic coefficient of 600-2300 lb/ft^2 (30-110 kN/m^2) for the payload section, depending on its orientation. An intact second stage would have a ballistic coefficient of 650-1700 lb/ft^2 (30-80 kN/m^2). While there will certainly be debris with smaller ballistic coefficients, which would be slowed quickly by atmospheric drag, these estimates lead one to expect that there will be debris with average ballistic coefficients greater than 500 lb/ft^2 (15 kN/m^2).

Knowing the ballistic coefficient allows one to calculate the atmospheric drag force on the debris, and one can then calculate the trajectory of the debris. Calculating how far debris would fall from the launch site under the conditions given above leads to these results:

Table 1. Debris dispersal for a malfunction 9 seconds after launch

Ballistic coefficient of debris	Impact distance from launch site
500 lb/ft^2 (24 kN/m^2)	1.6 miles (2.6 km)
1000 lb/ft^2 (48 kN/m^2)	1.9 miles (3.1 km)
2000 lb/ft^2 (96 kN/m^2)	2.1 miles (3.4 km)

These results show that in the scenario described above, debris would land outside of the LHA-No Wind if it traveled in a direction opposite to the intended trajectory, since in that direction the LHA is only about 1.5 miles from the launch site.

This case was chosen rather conservatively. The Trident II example suggests that the Hera missile can probably withstand turns of the type described above at somewhat higher speeds, which would lead to greater dispersal ranges for the debris. For example, if the above calculation is repeated for a malfunction occurring one second later (at 10 seconds after launch) one finds dispersal distances listed in Table 2, which are larger than those in Table 1.

[5] Drag coefficients are taken from S.F. Hoerner, *Fluid-Dynamic Drag* (Albuquerque: Hoerner Fluid Dynamics, 1965), chapter 3.

Table 2. Debris dispersal for malfunction 10 seconds after launch

Ballistic coefficient of debris	Impact distance from launch site
500 lb/ft^2 (24 kN/m^2)	1.8 miles (2.9 km)
1000 lb/ft^2 (48 kN/m^2)	2.2 miles (3.5 km)
2000 lb/ft^2 (96 kN/m^2)	2.5 miles (3.9 km)

To determine the LHA, one should then repeat this calculation for malfunctions occurring at successively later times along the trajectory. Since the missile's speed will be higher at these later times, the atmospheric forces during the turn will be higher. This will limit how fast a turn the missile can withstand and eventually will limit the range to which debris is thrown. The LHA-No Wind should then be a contour that contains all the calculated debris impact locations. Since the actual mechanical limits of the Hera missile are not publicly known, I cannot calculate what the LHA-No Wind should be. However, this analysis makes clear that the LHA-No Wind proposed by BMDO is too small.

While the above calculations assume the Hera missile is flying on the "nominal" trajectory supplied by Air Force, flying a trajectory that pitches the missile over faster does not help much since we are considering times very early in the flight.

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Star Wars rocket goes haywire, destroyed

By Marcia Dunn
Associated Press

CAPE CANAVERAL, Fla. — A small rocket carrying secret Star Wars experiments was destroyed 1¼ miles above Cape Canaveral Air Force Station today when the booster veered sharply off course seconds after liftoff.

The 29-foot Aries rocket took off on time but almost immediately went out of control. A boom could be heard in the distance and a shower of sparks could be seen as Air Force officials issued self-destruct commands 23 seconds into the flight.

Coast Guard Master Chief Tom Grant said much of the burning debris slammed into a fairly remote area of the Air Force station, a few miles from the launch pad. A few pieces also may have landed just off shore in the Atlantic Ocean, he said.

No injuries or property damage were reported, Grant said.

It was the third problem launch for the rocket-maker, Virginia-based Orbital Sciences Corp., in as many month.

Air Force officials said the rocket was 1.5 miles high and 1.7 miles downrange from the pad when it was blown up by remote control. The rocket was supposed to head east-northeast, but instead was aiming for the south-southeast, they said.

It was to have been the first of two Aries launches this week from Cape Canaveral.

The short, suborbital flights were part of the Strategic Defense Initiative's Red Tigress program for the development of missile-detecting sensors.

Maj. Carolyn Channave, a spokeswoman for the Pentagon's SDI, said the cause of the accident was under investigation.

"You've got to realize this is a research program, and you take those chances in a research program," Channave said.

The rocket was supposed to boost the experiments to an altitude of 248 miles to 310 miles before plunging back toward Earth. The plan called for the rocket to fall into the sea 62 to 93 miles from the launch site nine minutes after liftoff.

Civilian space analysts said they believe infrared sensors on the ground and on aircraft were to have tracked the rocket in an effort to learn how to recognize enemy missiles and distinguish them from decoys and natural phenomena.

The Air Force said the cost of today's launch and the one scheduled for Friday morning was $40 million, not including the experiments. Channave said Friday's launch probably would be delayed.

The rockets were built by Orbital Sciences Corp.'s Space Data Division of Chandler, Ariz.

Orbital Sciences spokeswoman Laura Ayres said today from the company's headquarters in Fairfax, Va., that officials are never satisfied "with anything but a purely successful launch."

"But in the launch business, these things happen, and we'll work to determine what the problem was and get it fixed and move on," Ayers said.

It was the third time this year that a rocket had to be destroyed shortly after liftoff from Cape Canaveral.

The first time was in April, when an Atlas rocket built by General Dynamics carrying a Japanese broadcasting satellite had to be destroyed six minutes after liftoff because it started tumbling toward Earth.

The second one was in June, when an Orbital Sciences rocket carrying science experiments had to be blown up 25 seconds after liftoff.

Orbital Sciences also had trouble in July with its experimental Pegasus rocket, launched from a B-52 bomber flying over the Pacific Ocean off the California coast.

Honolulu Star-Bulletin 20 August 1991

Computer mix-up ruined $5 million Star Wars test

Marcia Dunn
Associated Press

CAPE CANAVERAL, Fla. — Launch controllers loaded the wrong computer program into the guidance unit of a rocket that had to be destroyed last week when it veered sharply off course, a Pentagon official said today.

No one bothered to check printouts that showed the error, said Michael Griffin, deputy for technology at the Pentagon's Strategic Defense Initiative Organization.

"That's disheartening," said Griffin.

Another computer problem has grounded a similar rocket that is supposed to carry up more so-called Star Wars experiments as part of a target-tracking test. That launch, originally set for last Friday, is off until at least next week, SDI officials said.

The 29-foot Aries rocket was blown up Tuesday 23 seconds after being launched with Star Wars experiments from Cape Canaveral Air Force Station. Instead of heading northeast over the Atlantic, the rocket sped south.

The burning wreckage fell onto a remote area of the Air Force station. No injuries or property damage were reported.

The cost of the launch, not counting the experiments, was $5 million.

A technician accidentally hit the wrong key while loading software into the rocket's guidance and control unit just before liftoff, Griffin said. As a result, ground test software rather than flight software was sent into on-board computers, causing the steering nozzles to lock in place, he said.

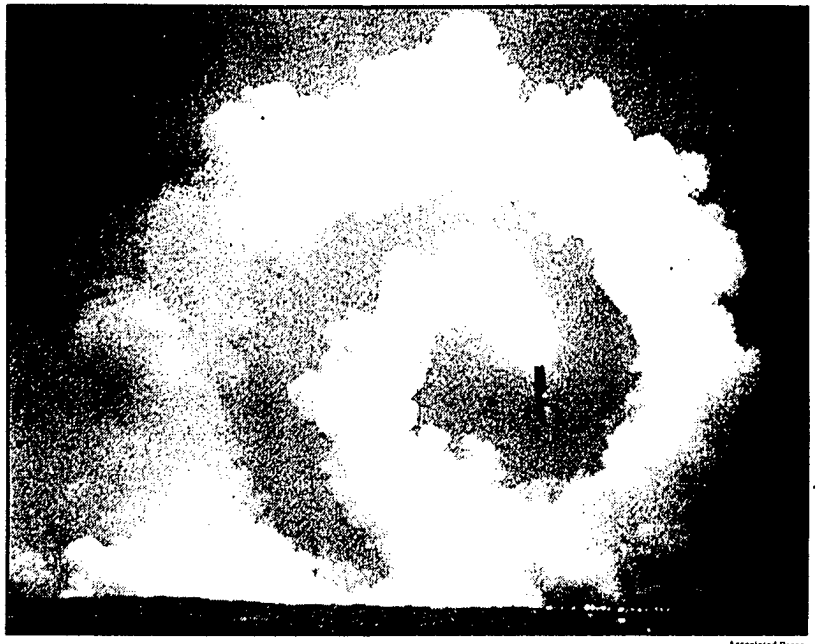
Controllers never checked to make sure the proper computer program had been loaded, Griffin said. The mistake was evident on computer printouts, but no one looked at them, he said.

An SDI spokeswoman, Maj. Carolyn Channave, said top Pentagon officials "definitely are going to be looking into this."

The launch operations were conducted by rocket maker Orbital Sciences Corp. of Fairfax, Va. Orbital Sciences spokeswoman Laura Ayres said the company had no comment regarding the mistakes.

"The overall system needs to be evaluated," Griffin said.

26 August 1991



Associated Press

The Trident II, out of control, self-destructs after being launched from a nuclear submarine in March.

Figure 1

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1123
23 OCT 1998

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0302

Dr. David Wright
Union of Concerned Scientists
2 Brattle Square
Cambridge, MA 02238-9105

Dear Dr. Wright:

Thank you for your comment regarding the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS). As noted in your attached paper, the Ground Hazard Area (GHA) varies in size by location. This is a result of Range Safety Officers determining GHAs at specific locations based on 2 factors: system performance and area available. This does not mean there is increased risk to the public for missile testing, but does indicate that missiles will be terminated earlier in flight if the GHA is smaller.

GHAs represent limiting constraints. Any class of target or interceptor missile may be launched from the potential launch sites as long as the required safety analysis confirms that all debris from a missile mishap would be contained within the identified GHA. As stated on p. es-2 of the Draft EIS, all testing would comply with U.S policy concerning compliance with treaties and international agreements.

The launch operations discussion of Section 4.1.1.7.1.1 contains a detailed discussion of the numerous factors that determine the shape and dimensions of the GHA. Adjustments in system performance and adjustments in allowable flight termination response time has confirmed that Hera's debris can safely be contained within a 10,000 foot GHA.

Let me assure you that those of us who have the privilege of working at PMRF want to do everything we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

9-241

9-242

May 25, 1998

Ms. Vida Mossman
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

Mr. Dan Sailer
Hawaii Audubon Society
850 Richards Street, Suite 505
Honolulu, Hawaii 96813

Dear Ms. Mossman:

The following comments are in regards to the Draft EIS prepared for the Pacific Missile Range Facility Enhanced Capability.

General Comments:

The Hawaii Audubon Society strongly opposes placing missile launch facilities on Tern Island, other Northwest Hawaiian Islands, and/or Johnston Atoll. The intensity of the proposed military uses (dredging, construction of launch pads and supporting infrastructure) are clearly incompatible with the intended purposes of the National Wildlife Refuge (NWR) System. To suggest otherwise is to ignore the mission of the NWR System and the eventual goal of wildlife restoration for all of Johnston Atoll and its associated islands.

As recently as March of 1996, President Clinton signed an executive order defining the mission of the NWR System as "preserv[ing] a national network of lands and waters for the conservation and management of the fish, wildlife, and plants of the United States for the benefit of present and future generations." Likewise Theodore Roosevelt signed Executive Order 1019 which initially set aside Tern Island and other Northwest Hawaiian Islands as a preserve and breeding ground for native birds.

Also, the DEIS does not sufficiently detail measures to prevent alien species introductions. Should any of the proposed activities occur on the Johnston Atoll or Tern Island, clear protocols and management plans are needed to prevent alien introductions to these important seabird nesting areas. As an example, golden crown beard has spread on Green Island reducing nesting areas and mosquitos are capable of transmitting fowl pox to Laysan Albatross (cf. Herbst and Wagner 1992: Alien Plants on the Northwest Hawaiian Islands). Ballast water containing micro-organisms also remains a threat to the nearshore marine life.

Further the cumulative impacts of using Tern Island, Johnston Atoll, and Niihau on marine mammals and seabirds still needs to be addressed.

Specific comments:

Niihau:

The construction of a runway on Niihau would potentially draw migratory (e.g. Pacific Golden Plover) and perhaps endangered endemic waterbirds (Hawaiian Black Necked Stilts) should ponding on the runway occur. Little mention was made of this consideration and the potential for airstrikes between birds and aircraft. At the public hearing on Oahu, it was also suggested that the runway might also serve as a water catchment surface, an additional draw for wildlife and aerial predators (e.g. Pueo). A hazing plan prepared in consultation with the U.S. Fish and Wildlife Service and the Department of Agriculture Animal Damage Control should be addressed before any FEIS. We recommend against a runway to prevent the possibility of losses to bird and human life.

Kaula Rock:

We strongly recommend that Kaula Rock not be used for additional military uses and all current military gunnery uses be phased out to allow for seabird nesting on all parts of the island. At the very least, we recommend a new study to evaluate the impact of gunnery exercises and other military uses of Kaula Rock as the report citing little impact on nesting seabirds is nearly twenty years old.

Tern Island:

We agree with the Marine Mammal Commission's comments that the decline of the Hawaiian Monk Seal population necessitates actions which encourage and *not discourage* adult and pup survival. Given the already low population and low reproductivity rates of the Hawaiian Monk Seal, minimizing further losses is a priority. We ask that if the United States is too err in its efforts to recover the seal, we should at least err on the side of conservation by avoiding all potential human disturbances to haul out, feeding, and breeding areas. Simply put, we strongly recommend that Tern Island not be used as a launch facility.

We hope these comments have been useful and we look forward to providing any further assistance should you request it. The Hawaii Aududon Society is a private non-profit organization dedicated to the conservation and restoration of our native wildlife and their supporting ecosystems.

Sincerely,

Daniel K. Sailer, Conservation Chair
Hawaii Audubon Society

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1126
23 OCT 1998

Mr. Daniel Sailer
Hawaii Audobon Society
850 Richards Street
Suite 505
Honolulu, HI 96813

Dear Mr. Sailer:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

As to threatened and endangered species such as the monk seal and green sea turtle, we are in consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service under the Endangered Species Act as indicated in Appendix K.

Section 4.3.1.3 has been changed to include following USFWS procedures for preventing introduction of alien species, as a mitigation measure.

We believe adverse impacts would be limited to individual monk seals on Niihau. Because we do not believe any species to be threatened, including the monk seal, we do not believe there will be cumulative impacts to biological resources.

Niihau

Section 4.2.1.3.2.2 of the EIS has been revised to state that, prior to construction of an airstrip on Niihau, a hazing plan would be developed in consultation with USFWS to avoid potential bird impacts to aircraft using the airstrip.

Kaula Rock

Our conclusion in the Draft EIS, at page 4-157, was that, while some individual migratory seabirds would be lost due to on-going gunnery training at Kaula Rock, the impacts on the population were expected to be minimal and that the populations appeared to be healthy and reproducing normally. However, the USFWS has indicated that this may not reflect the current situation, since little is known concerning the bird population on Kaula Rock. We have revised Section 4.2.2.2.1.1 to reflect this lack of current knowledge as well as the potential mitigation of monitoring/surveying the bird population to determine its current health. It should be noted that, although the State has designated Kaula Rock as a State Seabird Sanctuary, it is Federal property and has been used for military purposes for some time. We also point out that Kaula Rock is no longer used for bombing practice. It is currently used only for small caliber gunnery training.

Tern Island

See our response above related to the use of Tern.

Let me assure you that those of us who have the privilege of working at PMRF want to do everything we can to gain and maintain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0306

HAWAII BUILDING AND CONSTRUCTION TRADES COUNCIL, AFL-CIO

1109 Bethel Street • Room 203 • Honolulu, Hawaii 96813
(808) 524-2249 Fax (808) 524-6893

Herbert S.K. Kaopua Sr., *President*
Howard Tasaka, *Vice President*
Clyde Eugenio, *Secretary-Treasurer*
Sergeant-At-Arms
TRUSTEES: Benjamin Saguibo/Leonard Sebresos/Thaddeus Tomei

9-244

P-W-0308

May 26, 1998

Vida Mossman, Public Affairs Officer
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Hawaii 96752

Dear Ms. Mossman:

The Hawaii Building and Construction Trades Council with a membership of over 20,000 in the construction industry supports the Navy's Proposed upgrade and expansion of the Pacific Missile Range Facility (PMRF).

The capital investment of 33 million will help stimulate the economy on Kauai, provide a technological market place and modernize the Solar Powered Aircraft program.

We support the expansion of the Pacific Missile Range Facility.

Sincerely,

William "Buzz" Hong
Executive Director
WBH:sf

Skilled Craftsmanship Makes the Difference.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 1835
23 OCT 1998

Mr. William Hong
Hawaii Building and Construction Trades Council
1109 Bethel Street
Room 203
Honolulu, HI 96813

Dear Mr. Hong:

We appreciate your expression of support, on behalf of the Hawaii Building and Construction Trades Council, for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We agree that a strong partnership with our neighbors in both technical and civic areas is beneficial to both Kauai and the larger Hawaiian community and the Navy. Congress has recognized the benefits of the technology base and extensive off-shore range area existing at PMRF in identifying it as the primary area to test the Navy's theater ballistic missile defense systems.

The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0308

PRIVATE CITIZENS

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P-W-0108

FROM: VINCENT H. NISHINA
2518 KIPUKA ST.
KOLOA, HI 96756

24 APRIL 1998

TO: EIS HEARING COMMITTEE

SUBJ: WRITTEN TESTIMONY IN SUPPORT OF USN EIS

1. KAUAI HAS BEEN MY HOME SINCE 1966 AND HAVE BEEN EMPLOYED AT THE PACIFIC MISSILE RANGE SINCE THE EARLY EIGHTIES. FIRST WITH THE HI AIR NATIONAL GUARD AND LATER WITH THE DEPARTMENT OF THE NAVY. I SUPPORT THE BASE AND ITS FUTURE AND ALSO SUPPORT ITS EFFORTS OF THE EIS TO INSURE COMPLIANCE OF GOVERNMENT REGULATIONS. I PERSONALLY BELIEVE WE NEED PMRF FOR THE FOLLOWING REASONS:

A. TO SUSTAIN THE CURRENT ECONOMIC CONDITION ON THE WEST SIDE OF THE ISLAND AND THE POTENTIAL FOR GROWTH INCLUDING THE INHABITANTS OF THE ISLAND OF NIIHAU.

B. TO CONTINUE TO PROVIDE THE MILITARY MEANS TO CONDUCT TRAINING AND TESTING AT PMRF THUS ENABLING HER TO MAINTAIN A STRONG LEADERSHIP ROLE IN WORLD MATTERS.

C. TO ENABLE THE BASE TO WORK WITH NON MILITARY PROJECTS LIKE THE NASA ERAST PROJECT THROUGH WHICH IT HAS IMPACTED THE EDUCATIONAL, SCIENTIFIC, AND AVIATION COMMUNITIES.

D. TO LOOK FOR THE MILITARY FOR HELP IN HUMANITARIAN SUPPORT AS THEY DID AFTER IWA AND INIKI. ALSO FOR THE NUMEROUS UNPUBLICIZED EFFORTS THAT THEY ARE RELIED UPON ON A DAILY BASIS.

2. THUS I WISH TO BE COUNTED AS A STRONG SUPPORTER OF THE EIS AND PMRF.

THANK YOU,

Vincent H. Nishina

VINCENT H. NISHINA

9-247

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0866
23 OCT 1998

Mr. Vincent Nishina
2518 Kipuka Street
Koloa, HI 96756

Dear Mr. Nishina:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We consider PMRF's employees to be our most valuable asset in performing our mission to provide vital testing and training activities for the Navy. Congress has recognized the strengths provided by PMRF's technical base and location in designating it as a primary theater ballistic missile defense test range. Our goal is to be able to maintain a stable, competent workforce to continue to provide the high level of support we have done in the past and to fulfill the additional missions that are proposed at PMRF.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0108

P-W-0109

9-248

7030 Holopono Pl.,
Kapaa, HI 96746

April 25, 1998

My name is Joe Stoddard, Wailua Homesteads, and I rise in support of PMRF's enhancement program; possibly for reasons different from some of you here today.

How many of you here this morning are Veterans of WWII -- as I am? Do you remember the complacency and isolationism that existed leading up to December 7th, 1941 -- I do -- and how unprepared the United States was to defend itself against an aggressor? Now, in 1998, there are countries (large and small) throughout the world that currently have (or soon will have) the capability to launch totally devastating missiles. We must continue research and development in those fields vital to the defense of the United States and all its people.

Even as we are gathered in this auditorium, some form of military aggression is taking place elsewhere around the globe. Not all nations are committed to peace and non-aggression as is the United States!

PMRF's planned enhancement is not to create giant missile launching facilities such as Cape Canaveral or Vandenberg in California. Rather, its goal is to continue research and development into those systems needed to protect and preserve our way of life -- yours and mine. After all, the human race is also part of the flora and fauna of this Planet Earth. I am personally convinced that PMRF will continue to minimize, as they have in the past, any adverse effects to the environment.

It has been said "that those who fail to learn from history are doomed to repeat it!" I urge you to join with me in supporting PMRF's proposal. Mahalo and Aloha.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0867
23 OCT 1998

Mr. Joe Stoddard
7030 Holopono Place
Kapaa, HI 96746

Dear Mr. Stoddard:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. As a veteran who has put his life on the line for the protection and defense of our country, we recognize your valuable perspective concerning the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

Congress recognized the threat that currently exists in the world from theater missiles capable of carrying warheads of mass destruction in directing the development of Theater Missile Defense systems. You are correct that these systems are not on the order of the large missiles launched from Cape Canaveral and Vandenberg AFB.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0109

P-W-0110

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I fully support PMRF Proposal

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name _____

Address _____

_____

April 1998

Printed on recycled paper

9-249

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0868
23 OCT 1998

Dear Concerned Citizen:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the proposed enhancements at PMRF.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0110

9-250

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

NAME: Liz Rondol
ADDRESS: pob 685
Kilauea Hi
96754.

April 1998

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PMRF EXPANSION PLANS

First off let me say that I understand that PMRF as things are is an important source of jobs for people on this side of the island . I know that jobs are scarce and that these are the kind of slow economic times that make people fearful and more likely to allow the Navy to have their way with us. But we have to think long term as well as short term here and not allow our fear to make all our decisions for us. If we believe in a Creator that loves us and has our best interests at heart- then we are not forced to make a deal with the devil. Hawaii has been a cheap date for the military for far too long.

Kaho'olawe is a good example. They come here, trash an island, and then when it comes time to clean it up they say sorry- we don't have the money for that- but here's our new idea- we'll shoot rockets and play wargames and scare some wildlife and do what WE think is an acceptable amount of damage- which means DEATH to some endangered monk seals and sea turtles- and whales, in their last exercise with low frequency sonar attacks-
and you just have to take it because you need the jobs.

Except there are hardly any jobs. Maybe a few on Niihau- but otherwise we'll fly in a bunch of highly paid weapon scientist types and pay them millions in per diem money to stay at the nicest hotels and eat at the finest restaurants, on your dime, Mr and Mrs Taxpayer, and for those of you who own those restaurants and hotels it will be a great deal! And the maids and waiters and gardeners will stay busy. That's how you'll benefit for giving up your responsibility to the sea creatures and the ocean.

And how will this increase OUR security? Well, actually we are much more likely to become Ground Zero because of the increasing military presence here, testing cutting edge weapons for the multi-nationals who produce them..

If the Navy was really concerned with security in this country it would be focussing on the free flow of biological weapons such as anthrax, and nuclear weapons grade plutonium that can be smuggled around the world in the tiniest, but absolutely deadly quantities, as a result of this race to build better, more deadly weapons.

Instead it chooses to fuel this arms race, even though the cold war is over-- and we won. But this is what our military chooses to do with our peace dividend! Build bigger and better weapons in co-operation with these multi-national corporations- which then go out and re-sell them to the world—making HUGE profits--- and then the whole race starts over again!

Then they have to go out and test NEW weapons because the United States is no longer at the cutting edge of the death-dealing industry. In essence we the taxpayers pay to do their testing so that they can then go out and make windfall profits selling death and destruction around the globe. We are a peaceful people but they don't respect the spirit of the islands.
They only continue the bad old days of Ku, the war God, and his ways of human sacrifice.
We have to overthrow this god of war or our world will not survive!

We in Hawaii need our oceans pristine and our wildlife refuges to be in a natural, peaceful state. We need it because the fastest growing segment of tourism is eco-tourism- and that attracts people to Hawaii for the natural state of the environment- NOT because there are rockets going off offshore. One absolutely works against the other.

Eco-tourism is one of our best chances to move with the times and take advantage of the changing tourism market. Fewer and fewer people want to come to Waikiki. More and more they come to the islands- especially Kauai - for its natural beauty. We need to preserve that beauty- and that nature! We need it for our children and our children's children- to give them a world worth having.

The US now is the center of international arms trade. Without this industry actively marketing its weapons of death, all the wars around the world would be coming to a halt.
Countries around the world don't need to be spending their tax money on weapons of death- they need their tax dollars to promote a better way of life for their people- just as we in the US need that peace dividend to improve our schools and raise educated people who can compete in a world market. The real threat to the United States is shown in the sad state of much of our population- ~~stupid~~ uneducated and stoned. We will not be able to compete against much better educated citizens of other countries who are also not maintaining on addictive substances.

How long can the United States call itself a nation of good, moral people, leaders of the free world... and yet continue to contribute to this industry that causes death and destruction and misery around the world?

It's time to put our tax dollars to better use- and put the arms merchants out of business. Of course this can never happen while we have our current campaign financing system , with so many of our elected officials in the pockets of the arms dealers...

Until the mess at Kaho'olawe is completely cleaned up the military has no business coming in here and asking for a new playground where they can do more damage to the living creatures of the sea. This process needs to come to a grinding, screeching halt. Right here and right now. The people of Hawaii are in a position to say no to this exploitation. Expanding PMRF only continues what needs to stop for the good of the planet.

9-252

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0910
23 OCT 1998

Ms. Liz Randol
PO Box 685
Kilauea, HI 96754

Dear Ms. Randol:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

While the Navy does not claim that the proposed enhancements will have a substantial impact on employment or the local economy, we recognize that business and civic leaders consider the proposal to enhance PMRF's capabilities a positive development for the economic stability of Kauai and the larger Hawaiian community. We look forward to continuing to be a good neighbor to the people of Kauai.

We appreciate your opinions on the Draft EIS, as public input is critical to the EIS process.

Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0111

P-W-0112

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I wish to express my displeasure at the intended missile base on Niihau.
I also think we should protect the monk seals on Tern Island.
I do not approve of the military taking over anything.
I would like to see PMRF become a peaceful site for global peace!

Please place form in the comment box or mail to:
- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name _____
Address _____
_____

April 1998

Printed on recycled paper

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0911
23 OCT 1998

Dear Concerned Citizen:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

As to threatened and endangered species such as the monk seal and green sea turtle, we are in consultation with U.S. Fish and Wildlife Service and the National Marine Fisheries Service under the Endangered Species Act as documented in Appendix K.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0112

9-253

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

The expansion of the PMRF is very desirable & am in favor of this activity.

Our Country must stay ahead in defense matters at all times. This is part of that project.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

NAME: E. M. Coan
ADDRESS: PO Box 268
Kekaha, HI
96765

April 1998

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DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

9-254

IN REPLY REFER TO:

5090
Ser 00/ 0869
23 OCT 1998

Mr. E. M. Coan
PO Box 268
Lawai, HI 96265

Dear Mr. Coan:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0113

P-W-0114

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

PMRF has been a good neighbor - Because they are here we can still enjoy the life style we can enjoy - I am in favor of supporting their efforts to enhance the capability of the base in meeting the needs of the USA - Go for it. I am a life time resident of 50% Hawaiian.

Rhoda Golden
P.O. Box 531
Kekaha Hi 96752-

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

April 1998

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DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0870
23 OCT 1998

Ms. Rhonda Golden
PO Box 531
Kekaha, HI 96752

Dear Ms. Golden:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

PMRF is proud of its record as a good neighbor to the people of Kauai and we will continue to do all we can to maintain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0114

9-255

P-W-0115

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I AM IN FULL SUPPORT OF THIS PROGRAM

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name _____

Address _____

_____

April 1998

Printed on recycled paper

P-W-0117

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

9-256

IN REPLY REFER TO:

5090
Ser 00/ 0871
23 OCT 1998

Dear Concerned Citizen:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the proposed enhancements at PMRF.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0115

April 24, 1998

Ms. Vida Mossman
Public Affairs Officer
Pacific Missle Range Facility
P.O. Box 128
Kekaha, HI 96752

Dear Ms. Mossman:

As a seventh generation Kauaian, I would like to offer my support of the Pacific Missile Range Facility's (PMRF) proposed enhancements to improve and upgrade instrumentation, communications equipment, radar and sensors capabilities. PMRF has continued to provide much needed employment to Kauai's residents and has been a valuable contributor to our community for 35 years.

Due to its national importance, I believe that the Pacific Missile Range Facility capabilities must be able to perform at the highest level possible, and that all consideration to that effect be pursued.

I do agree that (PMRF) holds the key to future technology initiatives on Kauai, and support the United States Navy TMD proposal.

Mahalo,

Stephanie Kaluahine Reid

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0872
23 OCT 1998

Dear Ms. Reid:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. As you stated, this proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0117

9-257

P-W-0118

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I support the theater Ballistic Missile Defense (TBMD) Tests at the Pacific Missile Range Facility because I know that the Pacific Missile Range Facility has the unique capability conducting an air, surface, subsurface operations and to evaluate the capability of the Range to test this TMBD. I am also quite sure it will not have an impact on the wildlife such as the albatross (gooney bird), Hawaiian Monk Seals, Green Hawk Turtles, humpback whales or other marine mammals and also it will not impact flora or fauna that exist here. and lastly economy is bad at this time and therefore the TMBD will have a positive socio economic impact to PMRF/Niihau and Kauai.

Please place form in the comment box or mail to:
- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

NAME: Joanne Taguma
ADDRESS: POB 81 &
Kalaheo, HI 96741

April 1998

Printed on recycled paper

9-258

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0873
23 OCT 1998

Ms. Joanne Taguma
PO Box 81
Kalaheo, HI 96741

Dear Ms. Taguma:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses. Congress has recognized the unique capabilities of PMRF to test vital theater ballistic missile defense systems.

The EIS analysis and process has had as its primary objective to identify potential impacts of on-going activities and proposed enhancements at PMRF and, to the extent possible, to avoid adverse impacts to sensitive species, such as the monk seal, sea turtles, and migratory birds.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0118

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I highly recommend that the EIS to be build on Niihau for our future generation.

Destinie Keamoai
14 yrs. old
NIIHAU

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

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DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0874
23 OCT 1998

Dear Ms. Keamoai:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement. Our country was built on the idea that we all should be able to express our views and be heard.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0119

9-259

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I highly Recommend for EIS
~~make~~ be approved for
Niihau.

Nani Kawai Keamoai
Niihau.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Printed on recycled paper

9-260

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0875
23 OCT 1998

Dear Ms. Keamoai:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement. Our country was built on the idea that we all should be able to express our views and be heard.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0120

P-W-0121

David W. Alexander
P.O. Box 1041
Waimea, HI 96796-1041

April 25, 1998

Commanding Officer PMRF
P.O. Box 128
Kekaha, HI 96752-0128

Dear Sir,

After reading the PMRF-EIS I want to add my voice to those opposed to many aspects of the proposal. The two most important parts that I am against are the use of Tern Island, which must be left alone and secondly the need to use Niihau Island at all.

I feel most strongly about Tern Island. Leave it and the monk seals alone. The expansi of PMRF is not an enhancement by any stret of the imagination. Forcing a military presense into a new location has never enhanced that location - ever, anywhere on Earth. I am reminded of an insensative general who justified destroy a village by saying that was the only way to save it. On Tern Island our government should not disturb the breeding ground for 90% of the World's Hawaiian Monk Seals just to save them from Iraqi Scud Missiles. The Navy can perform their launchings and targeting from platf at sea, and from Johnston Island where it is too late to divert an ecological disaster.

As for Niihau, that concerns a contract wi a private property owner, so I feel there is

nothing for me to say about that aspect of PMRF's expansion. I feel it is a waste of taxpayers money - myself being one of them. We already won the Cold War and should be glad we can look foward to less military on Kauai not more. I respect the Robinson's complete right to leave their land to the Navy, I just don't like paying for it when I feel it's not necessary.

Sincerely,
David W. Alexander
David W. Alexander
private citizen

9-261

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0912
23 OCT 1998

Mr. David Alexander
PO Box 1041
Waimea, HI 96796-1041

Dear Mr. Alexander:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, and that PMRF is the ideal location to perform this testing.

We appreciate your opinions on the Draft EIS, as public input is critical to the EIS process.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0121

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I'm 12 years old and the EIS should be approved for Niihau, our future. ~~Economy~~ Economy Wise.

Justina Imaikani Keamoai 12 Niihau

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

April 1998

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DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0876
23 OCT 1995

Dear Ms. Keamoai:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement. Our country was built on the idea that we all should be able to express our views and be heard. We encourage you to continue to learn about issues that are important to your community and to the American people.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0122

9-263

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

My wife and I agree with PMRF plans.

Bettye & Charles Kingsbury

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

P.O. Box 1168
Kalaheo

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DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

9-264

IN REPLY REFER TO:

5090
Ser 00/ 0877
23 OCT 1998

Mr. and Mrs. Charles Kingsbury
PO Box 1168
Kalaheo, HI 96741

Dear Mr. and Mrs. Kingsbury:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses. Congress has recognized the unique capabilities of PMRF to test vital theater ballistic missile defense systems.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0123

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I am in support of PMRF. PMRF has been good for the community, ~~est~~ island, + State. The economy of Kauai is mainly dependent on PMRF + contractors. The economy of the community/island are always considered prior to taking on a big project. In times of need and fun, PMRF is their ~~the~~ only big business.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name _____

Address _____

_____

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DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0878
23 OCT 1998

Dear Concerned Citizen:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0124

9-265

P-W-01

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I am in support of PMRF and their efforts. They look out for the welfare of the entire Westside community supporting business & family.

C Tennberg

Name Cheryl Tennberg
Address P.O. Box 533
Koloa, HI 96756

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

April 1998

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DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

9-266

IN REPLY REFER TO:

5090
Ser 00/ 0879
23 OCT 1998

Ms. Cheryl Tennberg
PO Box 533
Koloa, HI 96756

Dear Ms. Tennberg:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0125

P-W-0127

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I am in support of PMRF and all they have carefully decided to do. All decisions are made with all aspects in consideration.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name _____

Address _____

_____

April 1998

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DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0880
23 OCT 1998

Dear Concerned Citizen:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0127

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

As a Kauai resident of Kekaha, I am totally in support of PMRF efforts. Although I am from Hawaii and married my husband (50%) and children (25%) have local Hawaiian heritage. We have chosen to live + love PMRF's support in the community with our children (Kekaha Kaimana Beach) + at the hospital (KCMH) where I work. It would be a great loss to our community should PMRF ever leave. We support all their efforts.

Bucasas

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

338-9959 (H)
338-9431 (B)
PO Box 631
Waimea

April 1998

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9-268

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0881
23 OCT 1998

Ms. Susan Bucasas
PO Box 631
Waimea, HI 96796

Dear Mrs. Bucasas:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

PMRF is proud of its record as a good neighbor to the people of Kauai and will continue to be sensitive to cultural and other issues important to the people of Hawaii.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0129

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I'm in favor of the proposed Range expansion

Tom Hall
Name

Please place form in the comment box or mail to:
- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Address Box 1059
Kekaha 96752

April 1998

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DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0882
23 OCT 1998

Mr. Tom Hall
PO Box 1059
Kekaha, HI 96752

Dear Mr. Hall:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0131

9-269

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I support whatever choice the residents of Niihau chose. Sharon L Agnew

I have read the EIS & feel this is a low impact project that could benefit the people of Niihau.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name
Address P.O. Box 3182
Lihue 96766

Printed on recycled paper

9-270

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0914
23 OCT 1998

Ms. S. L. Agnew
PO Box 3182
Lihue, HI 96766

Dear Ms. Agnew:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement.

Particular efforts were made to solicit the opinions and input of the people of Niihau concerning aspects of the Navy's proposal that would involve activities on the island.

The residents have been generally supportive of these activities. There has also been a cooperative effort to complete a cultural study of Niihau, and every effort will be made in the future to continue to avoid activities and contacts that would be adverse to the desires of the Niihau residents to preserve their culture, while having a means of livelihood.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0132

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

To Whom It May Concern:
Thank You for this opportunity to express my feelings regarding this EIS meeting. I support this base expansion and am greatly reassured as to the safety concerns that the base has expressed and researched to ensure that any environmental concerns have been addressed.

Sincerely
Pat. Kaneshiro

Please place form in the comment box or mail to:
- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name (Mr.) Pat Kaneshiro
Address P.O. Box 474
Kekaha 96752

April 1998

Printed on recycled paper

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0883
23 OCT 1998

Mr. Pat Kaneshiro
PO Box 474
Kekaha, HI 96752

Dear Mr. Kaneshiro:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses. Congress has recognized the unique capabilities of PMRF to test vital theater ballistic missile defense systems.

PMRF is proud of its safety record over a period of many years, and safety will always be of primary concern in conducting testing and training on the range. In addition, we believe PMRF has been a good steward of the environment and through this EIS process will work to ensure that its future activities will be conducted in an environmentally responsible manner.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0133

9-271

P-W-0134

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

No more Rockets or bombs
Invest in education.
Create Peace NOT Distruction
Protect the environment
Do NOT Distroy it
Politics & Big money will
distroy what beauty we have.
~~Plant~~ PMRF Go Away

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name _____

Address _____

_____

April 1998

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9-272

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0915
23 OCT 1998

Dear Concerned Citizen:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

We appreciate your opinions on the Draft EIS, as public input is critical to the EIS process. Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0134

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I support the findings in the draft EIS. It appears to take all possible impacts into consideration.

Please place form in the comment box or mail to:
- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

NAME: Mark Hubbard
ADDRESS: 2420 Kanio St.
Lihue HI 96766

April 1998

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DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0884
23 OCT 1998

Mr. Mark Hubbard
2420 Kanio Street
Lihue, HI 96766

Dear Mr. Hubbard:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement. With the assistance of resource managers and the interested public, we have attempted to address all issues of concern relating to the potential environmental impacts of the proposals to enhance PMRF's capabilities to perform theater ballistic missile defense testing.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0135

9-273

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I strongly support the PMRF Enhanced Capability because of the positive socioeconomic impact to Kauai and Hawaii. The direct impact from official & present employees visitors, ~~visits~~ identified in the EIS. The EIS should identify the secondary jobs created from employees and official visitors of PMRF.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name Robert Inouye
Address 2639 Alaeka
Lihue HI 96766

April 1998

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9-274

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0885
23 OCT 1998

Mr. Robert Inouye
2639 Alakea
Lihue, HI 96766

Dear Mr. Inouye:

Thank you for your comment. Your support of the U.S. Navy and its efforts to enhance the capabilities of PMRF is appreciated. Because the number of direct jobs created is expected to be small, the indirect and induced jobs likely to be generated by the "multiplier effect" are also expected to be small, although real.

While these numbers of new jobs are expected to be small, the proposed activities would ensure the viability and stability of jobs generated by PMRF. The civic and business organizations on Kauai recognize this to be a positive impact.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0136

P-W-0137

24 April 1998

Hello!

My name is Bill Hartsell. I am a longtime resident of Kekaha. Thank you for affording me this opportunity to publicly express my support for P.M.R.F. and also the efforts of Gay and Robinson in trying to keep their operations and our community alive. While these two organizations seem quite different in their overt purposes, they share a mutual interest in prosperity. With such success in mind they both have recognized, perhaps far more than our local government, the need for cooperation and supporting the well being of the community as necessary elements of survival.

I feel the underlying tone of the EIS encounter for the Stars program was to cherish the elders' past while protecting our children' future. Mayor Yukimura , exceeding her allotted time, argued passionately for these convictions, and yet in parting screeched out, "TAKE YOUR DAMN MISSILES AND LEAVE OUR ISLAND!" I think that she, at that time, could not comprehend the stewardship that PMRF and the sugar plantations would willingly submit themselves to in the event of a natural disaster.

Joanne and many opponents are, well meaning and concerned about negative impacts of future base activities. I believe they are often misinformed, have too little information so form false impressions, or are swayed by reactionary public rhetoric. I hope these people will take the time to learn without trespassing, what the reality of life IS on Niihau, that they try to understand just how important these two entities are to the west side of our island and that they acknowledge the reality that PMRF and Gay and Robinson have and continue to be faithful stewards for our community, especially where the dignity of the elders and the needs of our children are concerned. Maybe then they will appreciate why the west side community chooses to stand behind PMRF and the Robinson's, as they have so supported so many of us.

Respectfully,

Bill P. Hartsell
PO Box 513
Lawai, HI 96765
#337-9405

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0886
23 OCT 1998

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0137

Mr. Bill P. Hartsell
PO Box 513
Lawai, HI 96765

Dear Mr. Hartsell:

We appreciate your thoughtful comments submitted as part of our public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement. We have attempted to include meaningful opportunities for all segments of the public on Kauai and other interested parties to comment on the EIS and the Navy proposal to enhance the capabilities for theater ballistic missile defense testing.

PMRF has had a positive relationship with the Robinson family, which has proven to be mutually beneficial. With respect to Navy use of areas on Niihau, the Robinsons have required, and the Navy has honored, a very strict protocol designed to protect the people of Niihau and their culture from undesirable outside influences and contacts. During the EIS process, special efforts were made to solicit the opinions and input of the people of Niihau concerning aspects of the Navy's proposal that would involve activities on the island. The residents have been generally supportive of these activities.

We agree that misinformation, or a lack of understanding of PMRF's mission and activities and of the relatively low potential for significant environmental impacts resulting from them, has led a number of groups and individuals to oppose any new programs. We understand that some will oppose any continuation or expansion of military activities in Hawaii as a matter of principle. However, we believe that the ongoing and proposed programs at PMRF may be conducted consistent with good environmental stewardship.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

9-275

P-W-0139

9-276

24 APRIL 1998

DRAFT ENVIRONMENTAL IMPACT STATEMENT COMMENTS, TBMD & TMD PROGRAMS

The Environmental Impact Statement (EIS) was drafted in accordance with Federal Law. The EIS thoroughly examines the impact of new facilities proposed at the Pacific Missile Range Facility, located on the western shores of Kauai, and Niihau Island.

The proposed locations were carefully selected with not only strategic criteria, but also environmental criteria as well. Habitation areas of endangered wildlife, plants, and fauna were successfully avoided. On Niihau Island, the proposed sites are away from the residential area, and also do not contain any endangered wildlife or vegetation. The areas are composed of lava rock, kiawe trees, and other common plants.

The launching of missiles will not have any adverse affect on the land, or plant life. The goats and pigs do, however. The goats eat plant life, and pigs burrow in the soil.

The EIS discusses in great detail, factual interaction between the government and Niihau Ranch, owned and operated by the Robinsons.

My wife and I were both raised on Kauai; without this program, we would eventually have to move. We would be unable to be with our families and be a part of this special community. Without any adverse environmental impacts and many economical and national defense benefits, the United States, the State of Hawaii, and the County of Kauai have much to gain and NOTHING TO LOSE.

STEVEN HIRONAKA
KALAHEO, KAUAI, HI

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0916
23 OCT 1998

Mr. Steven Hironaka
Kalaheo, HI 96741

Dear Mr. Hironaka:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

PMRF is proud of its record as a good neighbor to the people of Kauai and will continue to be sensitive to cultural and other issues important to the people of Hawaii. As you noted, the EIS discusses the potential environmental impact of conducting some activities at Niihau in support of the Navy's proposed missile testing program.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0139

P-W-0140

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I am in support of the PMRF expansion + upgrade.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

NAME: KATHY A. RIVEL
ADDRESS: P.O.BOX 933
WAIMEA, HI
96796

April 1998

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9-277

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0887
23 OCT 1998

Ms. Kathy Rivel
PO Box 933
Waimea, HI 96796

Dear Ms. Rivel:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0140

P-W-0143

9-278

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I AM IN FAVOR OF EXPANSION OF PMRF. WE NEED THE JOBS. ALSO WE BELIEVE IN A STRONG MILITARY.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name _____

Address _____

_____

April 1998

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DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0888
23 OCT 1998

Dear Concerned Citizen:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe by continuing the viability of PMRF through enhancing its capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0143

P-W-0144

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

100% in favor of Technology expansion on Kauai.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

NAME: Barbara Coan
ADDRESS: PO Bx 268
Lawai 96765

April 1998

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9-279

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0889
23 OCT 1998

Ms. Barbara Coan
PO Box 268
Lawai, HI 96765

Dear Mrs. Coan:

Thank you for your comments and participation in the public hearing process on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0144

P-W-0146

9-280

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

1. WOULD LIKE TO SEE A HANDOUT - STATING WHY AN EA/EIS IS REQUIRED AND WHAT THE LAWS ARE. (PLUS AN EXAMPLE OF AN ESTIMATED TIMELINE.)

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name _____

Address _____

_____

April 1998

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DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0919
23 OCT 1998

Dear Concerned Citizen:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Display materials and handouts describing the EIS process, timeline, and legal requirements for the EIS were available at the public hearing sessions. Section 1, Purpose and Need, describes the laws requiring an EIS. Typically an EIS takes one to three years to compete.

We appreciate your interest in our process.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0146

P-W-0147

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I support the Pacific Missile Range Facility's Enhanced Capability EIS. PMRF is following all required procedures ~~in~~ in this EIS process. The enhanced capability will provide many residents with jobs, merchants w/ increased or sustained livelihoods and a healthy life for all of Kauai, without adversely affecting the environment we are used to. The enhanced capability will indeed "enhance" our way of life and will enable a number of us to attain our dreams. Continued support of PMRF is essential for the well being of the West side.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name Christine Nonaka
Address P.O. Box 451
Hanapepe, Hi 96716

April 1998

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9-281

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0890
23 OCT 1998

Ms. Christine Nonaka
PO Box 451
Hanapepe, HI 96716

Dear Ms. Nonaka:

Thank you for your comments and participation in the public hearing process on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We consider PMRF's employees to be our most valuable asset in performing our mission to provide vital testing and training activities for the Navy. Congress has recognized the strengths provided by PMRF's technical base and location in designating it as a primary theater ballistic missile defense test range. Our goal is to be able to maintain a stable, competent workforce to continue to provide the high level of support we have done in the past and to fulfill the additional missions that are proposed at PMRF.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0147

P-W-0149

9-282

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

Aloha) Capt. Bob & Vida) Bowlin
& U.S. Navy,
Please take care) of the
Niihau people) w/ ALOHA, Kindness
heart, safety + protection of yours (is
highest priorities too!) You must be
accountable) for all their concerns and
issues + needs.

Name (Henry Ayau)
Address 2085 Ala Wai Blvd
Hon. HI 96815

Henry Kekoa Ayau
Ave.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

April 1998

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DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0892
23 OCT 1998

Mr. Henry Ayau
2085 Ala Wai Boulevard
Honolulu, HI 96815

Dear Mr. Ayau:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement.

We recognize the concerns relating to Niihau and its residents. To ensure the participation of Niihau residents in the process, we have conducted two informational meetings on Niihau. We believe that these meetings, coupled with the testimony of several Niihau residents at the Waimea public hearing on April 25, 1998, indicate a full and complete understanding of the proposed action and its potential impacts.

Let me assure you that those of us who have the privilege of working at PMRF want to do everything we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0149

PMRF Enhanced Capability
Public Hearing April 25, 1998

My name is David Helela. I live in Wailua. I'm here to declare my support for the PMRF Enhanced Capability that would allow it to conduct tests, evaluation, and training for developing a defense against potential enemy theater ballistic missiles.

I support this program not for the possible economic benefits that it may bring; not for the jobs, or for the extra cash that might flow into our Island economy. As far as I'm concerned, those benefits are irrelevant arguments for allowing this project to proceed.

My argument in support of this project is that there is a clear and present danger in the world today of our deployed forces being attacked by enemy theater ballistic missiles, such as they were by the Iraqi SCUD missiles during the Gulf War. As we all remember, our troops and the people from the countries in the region who came under attack could do little more than duck out of the way as the rockets plummeted to the ground.

A SCUD missile hit a barracks in Saudi Arabia, and 28 Americans came home in body bags. Elsewhere, numerous civilian casualties and material damage occurred as well from SCUD missile attacks.

If you consider our country's inability at the time to protect its troops and, incidentally, the people in the area that we deployed those troops to defend in the first place, you'll agree that it is absolutely incredible that the most powerful nation in the history of the world -- which has the most advanced technological capability ever -- would fail to have a defense system capable of knocking out of the air something that was only about one step removed from Hitler's V-2 rockets that were used to terrorize Britain in World War II.

There are more than enough potential trouble spots in the world today that may require the deployment of U.S. Forces. In addition to Iraq and the threat it poses in the Middle East, North Korea is a particularly big threat to its region because of her large military force capabilities, including theater ballistic missiles.

When America decides that it is in its national interest to deploy troops to a trouble spot in the future, I want to see a force package that includes an effective system for protecting our ships, airfields, logistical installations, and troop concentrations in the theater of operations from enemy ballistic missiles.

I believe the systems that are needed to fill that package can be developed right here at PMRF.

Now for the hard part. I read the two-volume draft EIS and I believe I understand the major parts of the document. I'm impressed by the measure of work that went into its preparation in terms of scope and detail. Congratulations.

Your good work notwithstanding, there should be no question that people are concerned about the possibility of this project harming our environment, and its eco-systems, and that it could adversely affect the native people on the island of Ni'ihau. You need only to read the "Consultation Comments and Responses (Scoping)" section in the document to see that.

And I regret to say that you have not done enough to assure the people that the environment and native culture are important. You have yet to gain their trust.

Some native Hawaiians I've talked to worry that this project will just be another Kaho'olawe episode. They say "It's the same Navy that bombed Kaho'olawe for 50 years, inflicting irreparable damage to the environment and to the material culture of the native Hawaiian people". And they ask, "What's to stop the Navy from doing the same thing to Ni'ihau?".

So, the challenge for Captain Bowlin and the PMRF crew is this: You must achieve the objectives for testing and evaluating the systems in this project **without harming our environment or our people**. I'm betting that the Navy can do it.

If it fails, however, you can expect a great public outcry to shutdown this project, and I'll likely be back with the protestors.

DAVID H. HELELA
180 HAWAIIANA STREET
KAPA'A, HI 96746
(808) 823-0973

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

9-284

IN REPLY REFER TO:

5090
Ser 00/ 08 93
23 OCT 1998

Mr. David Helela
180 Hawaiiana Street
Kapaa, HI 96746

Dear Mr. Helela:

Thank you for your comments and participation in the public hearing process on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

Let me assure you that those of us who have the privilege of working at PMRF want to do everything we can to maintain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0150

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

Please next time arrange the speakers podium so that the audience does not have to look at the speakers backside

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name Jack RESOR
Address 239 Aina Lani Pl
Kapaa HI 96746

April 1998

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DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0894
23 OCT 1998

Mr. Jack Resor
239 Aina Lani Place
Kapaa, HI 96740

Dear Mr. Resor:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

The purpose of the meeting was to allow people to make comments to the Navy, represented by the panel. However, based on the comments received at the Waimea hearing, the speaker's podium was moved for the second meeting.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0151

9-285

P-W-0152

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I am gravely concerned about the upgrades of the military presence on Kauai, Niihau, and other islands in the Pacific. It clearly states in the environmental impact statement that the missile testing and increased military presence will have an adverse impact on Hawaiian life and the environment — especially endangered species. I feel that the Navy and the U.S. Govt. has not fully disclosed the effects that they have had on the environment and have not disclosed publicly the full extent of there operational intentions as the law states

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

name Susan Mitnik
address P.O. Box 1589
Hanalei, HI 96714

I oppose further expansion of military presence.

April 1998

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DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0920
23 OCT 1998

9-286

Ms. Susan Mitnik
PO Box 1589
Hanalei, HI 96714

Dear Ms. Mitnik:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement (EIS).

The Congress of the United States has determined that we need to have effective defenses for our armed forces and allies against missile attacks, like the ones that killed many servicemen and women in Saudi Arabia during the Gulf War. Congress has also recognized that PMRF provides an ideal setting to test these systems because of its established technical infrastructure and the wide ocean expanse to conduct the actual intercept tests.

The leaders of our country must make many difficult decisions concerning how and where to conduct activities that will provide us with a strong defense. PMRF already conducts many testing functions vital to our national defense. The EIS is analyzing the environmental impacts of enhancing its capabilities to perform testing of missile systems to protect our armed forces and allies.

In regards to marine life and endangered species, the U.S. Navy is consulting with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service during the development of this EIS. The EIS details the effects on the environment of the No Action and Proposed Actions to the best of our abilities.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0152

P-W-0153

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

REGARDING BIOLOGICAL IMPACT ON SEALS AND TURTLES, PLEASE INDICATE THE RELATIVE IMPACT – THAT IS, WHAT PERCENTAGE OF THE WORLDWIDE NESTING AREAS OF THESE SPECIES DOES TERN ISLAND, AND THE RELAVANT PART OF NIIHAU, ACTUALLY REPRESENT? PERHAPS SUCH NUMBERS WOULD HELP US OBTAIN THE APPROPRIATE PERSPECTIVE.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

NAME: E. J. COAN

ADDRESS: 6605 ALAHELE ST
KAPAA HI 96746

April 1998

Printed on recycled paper

9-287

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 09 21
23 OCT 1998

Mr. E.J. Coan
6605 Alahele Street
Kapaa, HI 96746

Dear Mr. Coan:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement.

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

While it is not known precisely how many animals are at Tern or Niihau, we do know that French Frigate Shoals, of which Tern Island is a part, supports approximately 90 percent of Hawaii's green sea turtle nesting and approximately 34 percent of the total Hawaiian monk seal population.

Let me assure you that those of us who have the privilege of working at PMRF want to do everything we can to gain and maintain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0153

P-W-0155

9-288

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I've been here from the beginning of the "public hearing" and want to state for the record this whole thing has been a shame! The people were not represented. You all should be ashamed. I will NOT be coming out to another one sided "public hearing" again.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name Rick Potter
Address P.O. Box 1947
Hanalei, HI. 96714

April 1998

Printed on recycled paper

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0922
23 OCT 1998

Mr. Rick Potter
PO Box 1947
Hanalei, HI 96714

Dear Mr. Potter:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

The public hearing was conducted to listen to the public's concerns and comments. It was conducted following normal, well-established procedures. We regret that you feel it was one-sided. The U.S. Navy can only offer opportunities for the public and interested parties to comment. We cannot control whether or not they actually participate. Perhaps the comments you hoped to hear were submitted in writing instead.

We appreciate your participation and encourage you to continue to participate in such opportunities for public dialog.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-155

P-W-0157

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

Prepare for War and you will have it. Prepare for peace and you will have it. To Enhance our Killing Mechinisms intended for our enemy only inspires our enemy to enhance their Killing Mechinisms intended for us. More missiles beget other missiles turned against us. Our fears manifested beget only retailiatory aggression. We can let this go on until a disaster so large stops us all dead in our tracks. How far do we go before we realize there is a better way? No one wins wars and there are no enemies We are all of us one people. I oppose any military expansion. I suggest we put our energies into research into how to create trust among nations. You cannot simultaneously prepare for war and work for peace at the same time. We have to choose one or the other lets all choose peace.

Thank you

Rebecca Miller
PO Box 1494
Hanalei, HI
96714

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name _____

Address _____

_____

April 1998

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9-289

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

9-290

IN REPLY REFER TO:
5090
Ser 00/ 0923
23 OCT 1998

Ms. Rebecca Miller
PO Box 1494
Hanalei, HI 96714

Dear Ms. Miller:

Thank you for your comments and participation in the public hearing process on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS). Public opinions are a critical part of the EIS process.

We appreciate your concerns about military testing around the world, however, we believe that a strong defense is essential to protecting American life and property. Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-157

P-W-0158

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

CRAIG WALL
P.O. BOX 267
KILAUEA, HI 96754

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

April 1998

Printed on recycled paper

My name is Craig Wall - citizen of this planet Earth. I awoke this morning with a troubled spirit. As is my habit, I went to the beach for a refreshing run and swim. This morning I went to Polihale. As the sun began to warm this beautiful area I jogged and walked thru Nohili Dunes from Queens Pond to what is called Rec Area #1 and back again. It was the first time for me. My feet wuff-wuffed thru the dry sand and clear blue waves broke on the water. I did not encounter a single fence, military vehicle, or uniform. I did not even see a tour boat. The most obvious impact on the environment was the maze of 4-wheel drive tracks thru the dunes making islands of kaupaka and kiawe vegetation. Looking into this brush I saw the plastic, paper, and metal refuse of our consumer society. In spite of this the beauty of our natural heritage shined thru and refreshed my spirit. Maybe I'm just accustomed to the marks of my brother and sister humans on the planet. The sad fact is that these marks are becoming more and more obvious, especially in our natural reserves. I come here today to pray for a more careful stewardship of our gift. The sacreliges committed against it are titled: neglect, over use, over fishing and disregard for the increasingly fragile ecology ~~project~~. What can we do to preserve what we have? The impact of individuals is amplified by our numbers. Next time you are tempted to drive your truck where there is no road and you could walk only it would take longer - walk. Next time you want to take those aluminum and plastic containers with you. - Bring them back also. Next time you want to set your net on a reef that has been so overfished that even the most common species are rare - Don't. Next time you see a lobster and its too small or out of season - Don't take it. These are the actions that will make a difference in the long run. The scattered installations of modern military hardware that enable the defenders of our society that encourages us to meet as we have today have minimal impact compared to we human beings in our vast numbers.

9-291

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0895
23 OCT 1998

Mr. Craig Wall
PO Box 267
Kilauea, HI 96754

Dear Mr. Wall:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement.

We recognize the concerns relating to the fragile environment of Hawaii. Let me assure you that those of us who have the privilege of working at PMRF want to do everything we can to maintain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0158

9-292

P-W-0160

The Pacific Missle Range Facility (P.M.R.F.) is a brilliant beacon shining through the dark and depressed economy of our island of Kauai. With the substantial infusion of dollars into the local economy in the form of wages paid to employees,taxes, and money used to purchase supplies and services from local vendors. It is easy to see and to understand the positive financial impact that the Pacific Missle Range Facility (P.M.R.F.) has on our economy.

Kauai has the highest unemployment rate of all the islands in the state. Considering the number of local employees the Pacific Missle Range Facility (P.M.R.F.) hires to fill a variety of support positions at the facility; one does not need to waste a lot of time to realize the positive influence that the base has on the island workforce.

We should not overlook nor should we forget the vital and critical support role that the Pacific Missle Range Facility (P.M.R.F.) and its personnel played during the monumental clean-up effort in the aftermath of hurricane Iniki in 1992.

Considering all of the ALOHA! that the Pacific Missle Range Facility (P.M.R.F.) has extended toward the island. I would like to offer a well deserved MAHALO! for all they have done for our island community. Keeping the Pacific Missle Range Facility a part of our community is self-evident. I fully support the continued presence of the Pacific Missle Range Facility (P.M.R.F.) on our island.

Sincerly

ROGER OLSEN
P.O. Box 3176
Lihue, Hawaii
96766

Roger Olsen

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 08 96
23 OCT 1998

Mr. Roger Olsen
PO Box 3176
Lihue, HI 96766

Dear Mr. Olsen:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0160

Good Morning
Capt Boorda, Ladies & Gentlemen

EIS
PMRF ENHANCED CAPABILITY

I, like many of you, am a combat veteran. This experience has formed many of my views. There is simply no comparable experience than being in a foreign country and knowing that your are facing a highly trained, skilled, and dedication enemy whose entire focus is to kill you.

The United States has a moral obligation to protect America's young men and women who are placed in harms way. Protecting U.S. citizens and American property overseas and upholding national and foreign policy must be backed up with overwhelming military might.

Recently, a new threat has been developed and deployed by countries that are potentially threatening to America's overseas policies and the sovereignty of our allies. This threat is the deployment of Theater Ballistic Missiles. The United States fought Desert Storm only marginally prepared for this threat. As a result, 28 American lives were lost when an Iraqi Theater Ballistic Missile landed in a military housing complex. Theater Ballistic Missile Defense is a defensive system that will protect our young men and women as they carry out our nation's policies.

It would be wounderful if the world's population would suddenly become peace loving; that greed, drive for power, over exuberant nationalism, and maglamanias would disappear. Unfortunately world history, from the beginning of mankind to the present, has shown that this is very unlikely.

I understand the very real threat imposed by Theater Ballistic Missiles. I support our national political leaders who have placed TBMD as one of our nations highest priorities. I am pleased that they ~~have directed~~ ACE PROPOSING THAT the armed forces to develop a TBMD system and have chosen PMRF as the most efficient place to test these systems.

I, like others, place a high priority on preserving the environment for humans and for both successful and endangered species. I am confident that the Navy will make every effort to protect the environment and endangered species so they will be able to successfully propagate.

9-294

My highest priority is for the safety of our service personnel. I have little doubt that the Mothers and Fathers, the Wives, and the Sons and Daughters of the military personnel killed by that Iraqi SCUD missile would whole heartedly approve of the Navy's proposal to enhance PMRF's capabilities. I am exceptionally pleased to be a member of the PMRF team and I'm proud that the work we do significantly contributes to world peace and the safety of our military personnel.

I trust that the persons who oversee this process will closely look at the technical data used in the EIS and make decisions based on fact and not on political, or social philosophy, or unsubstantiated speculation. Goals such as "no military on Kauai", or "a nuclear free Pacific" are idealistic at best and have no place in this exceptionally serious agenda.

Having served in the Navy and worked for a nationally ranked contractor I am confident that PMRF can expand it's capabilities and perform these tests without significant impact to the environment or the wonderful society that we have on Kauai.

I am exceptionally confidence that Captain Bowlin and the Commanding Officers that will follow him will be especially sensitive to Kauai's environment and cultural concerns.

I strongly favor the EIS process and I strongly support the object of enhancing PMRF's capability to support testing of components of the TBMD system.

Thank You

Allan P. Nesbitt III

Allan P. Nesbitt III
4031 Pai Street
Kalaheo, Hi

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0897
23 OCT 1998

Mr. Allan P. Nesbitt, III
4031 Pai Street
Kalaheo, HI 96741

Dear Mr. Nesbitt:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses. Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0161

9-295

P-W-0163

April 25
1998

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

My name is Kyle Marsh I am 10 years old but by the time you will be reading this I'll be 11. I understand how you feel the need to exstend the base. But I think that we should keep the base the way it is and that we should not exstend the base. now I have ben to the PMRF and I under stand that you are trying to potect our contry. But this way is rong. I'll 4 you

Please place form in the comment box or mail to:
- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name Kyle Marsh
Adress 5806 Lakalani Rd.

April 1998

Printed on recycled paper

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0924
23 OCT 1998

9-296

Mr. Kyle Marsh
5800 Lokalani Road
Kapaa, HI 96746

Dear Mr. Marsh:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement (EIS). Our country was built on the idea that we all should be able to express our views and be heard.

The Congress of the United States has determined that we need to have effective defenses for our armed forces and allies against missile attacks, like the ones that killed many of our servicemen and women in Saudi Arabia during the Gulf War. Congress has also recognized that PMRF provides an ideal setting to test these systems because of its established technical infrastructure and the wide ocean expanse to conduct the actual intercept tests.

The leaders of our country must make many difficult decisions concerning how and where to conduct activities that will provide us with a strong defense. PMRF already conducts many testing functions vital to our national defense. The EIS is analyzing the environmental impacts of enhancing its capabilities to perform testing of missile systems to protect our armed forces and allies.

We encourage you to continue to learn about issues that are important to your community and to the American people.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-163

P-W-0164

April 17, 1998

P.M.R.F.
Vida Mossman
P.O. Box 128
Kekaha, Kauai, Hawaii 96752

Re: Support of PMRF

PMRF and its 800 plus civilian employees have been involved community members, and vigilant stewards of Barking Sands for over 35 years. With an annual payroll of $45 million (the majority of which are civilian residents) it is fair to expect that like any other business PMRF needs to upgrade and modernize its business base to support and attract new programs. What is currently being proposed by the Navy is to do a $33 million "makeover" at PMRF to keep it technically capable of performing programs of national importance well into the next century, thus furthering its position as a catalyst for science and high technology on Kauai.

We in Kauai's business community have been looking towards industries that could secure and strengthen our economic future. We strongly believe the science and technology industry would provide this opportunity through it largest high tech employer, PMRF.

Given the fact that U.S. Congress has mandated that Theater Missile Defense testing be conducted to develop a technically capable, cost effective counter to current threat, and that this program would mean a $33 million upgrade to the future of PMRF on Kauai, we support the Navy's proposed enhancement.

Linda F. Collins
P.O. Box 367
Waimea HI 96796

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0898
23 OCT 1998

Ms. Linda F. Collins
PO Box 367
Waimea, HI 96796

Dear Ms. Collins:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We look forward to continuing our positive relationship with the business and civic organizations on Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0164

9-297

9-298

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

No way! I do not want more testing. Enough! You ARE the enemy of our island & Environment You are Covert & not trust worthy. Stop pluting our island for Yours Greedy gain Close PMRF.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name Resident
Address Hawaii

April 1998

Printed on recycled paper

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0925
23 OCT 1998

Dear Concerned Citizen:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0165

P-W-0166

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I'M WRITING IN OPPOSITION TO THE PMRF EXPANSION, SPECIFICALLY ABOUT THE E.I.S. ABOUT THIS PROJECT. I BELIEVE THE ADVERSE AFFECTS ON THE ENVIROMENT AND ON THE ENDANGERED AND THREATENED SPECIES ARE GREATLY UNDERSTATED IN THIS DOCOMENT I ALSO BELIEVE THE CONSTRUCTION OF LAUNCH SITES ON TERN ISLAND AND JOHNSON ATOLL, AS WELL AS THE LAUCHING OF TARGET MISSLES FROM THESE SITES WOULD PUSH THE ENDANGED & THENTENED SPECIES ON THE WILDLIFE REFUGES CLOSER TO EXTINCTION. ADDING THE POTENTIAL EFFECTS OF A LAUNCH OR FUEL ~~SERVICE~~ STORAGE/TRANSFER ACCIDENT, THIS EXPANSION IS NOT ACCEPTABLE TO ME.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

NAME: CHRIS MILDWATER
ADDRESS: PO BOX 612
KILAUEA HI.
96746

April 1998

Printed on recycled paper

9-299

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0926
23 OCT 1998

Mr. Chris Mildwater
PO Box 612
Kilauea, HI 96746

Dear Mr. Mildwater:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

As to threatened and endangered species such as the monk seal and green sea turtle, we are in consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service under the Endangered Species Act as indicated in Appendix K.

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0166

Post-it® Fax Note 7672

To	Bob Mullins	No. of Pages	1
Co./Dept.	Textron	Today's Date	
Phone #		Time	
Fax #		From	Clarence Greff
		Company	Captain Zodiac
		Location	
		Dept. Charge	
		Fax #	
		Telephone #	

Original Disposition: ☐ Destroy ☐ Return ☐ Call for pickup

Attach Document to Fax

9-300

P-W-0174

April 20, 1998

Testimony for Public Hearing Regarding Upgrade of PMRF

My name is Clarence Greff. I am usually averse to the use of titles when presenting public testimony. The free and too frequent use of titles tends, from the public point of view, to impute knowledge about a subject which the title bearer may or may not have.

However, I feel that in this instance, I must present my credentials. I am a Captain, United States Navy (retired). During my 26 years of naval service, among other duties, I commanded three ships and worked on various staffs including that of the Chief of Naval Operations and the Joint Chiefs. My last tour of duty before retiring was Professor of Naval Strategy and Tactics at the Naval War College in Newport, Rhode Island. I do have first-hand knowledge concerning the vital importance of PMRF.

I have not been asked by the Navy Department or any member thereof to testify. However, as a private citizen, I feel compelled to speak out on such an important issue.

The first view I ever had of Kauai was on a radar scope aboard a then-modern guided-missile destroyer armed with surface-to-air missiles. The destroyer which I commanded was heading for PMRF to do some vital testing before proceeding to the Western Pacific. On the several occasions that we used PMRF, the level of professionalism and expertise was unexcelled. From all indications, these qualities have persisted over the years.

We should not underestimate the importance to our national defense of such facilities as PMRF. Without them our ability to develop and maintain our extremely complex systems would be seriously degraded.

PMRF has been serving our national defense needs and providing badly needed employment for numerous Kauai people for more than 35 years.

Most people against the proposed PMRF expansion are honest, concerned people who need

Most people against the proposed PMRF expansion are honest, concerned people who need reassurance that there are no significant bad effects on this beautiful island. According to published reports, any negative effects on the environment should be minimal, if at all. Please consider the facts, realizing that national defense is a burden which needs to be borne by all of us.

Thanks for the opportunity to testify.

Clarence H. Greff
Captain, US Navy (retired)

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0899
23 OCT 1998

Capt. Clarence H. Greff
Princeville, HI 96722

Dear Captain Greff:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses. Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0174

To: Vida Mossman

Pacific Missile Range Facility

Re: Draft EIS

My name is Nani Marston private citizen, resident of Kilauea Kauai. I am here to comment on findings in your draft EIS document per NEPA rules and regulations. There are many complex issues which weave their way through what I believe to be a very thorough study.

This document itself lists all concerns and proposed actions, and compares them to a "no Action alternative". Allowing much greater clarity. Quality of life issues are paramount to the people of Kauai, and Safety and Environment top the list as far as I am concerned. We all raise our children here and there was never a greater reminder of our vulnerability than September 11, 1992. Our fragile environment has been challenged on more than one occasion, so keeping that balance must remain a priority.

My overall impression is that the document finds no significant impact with proposed actions. The study predicts some adverse impacts for each of the six locations mentioned. They range from: Temporarily disturbing monk seals, to possible increases in microscopic algae, to potential launch noise.

These findings however, say that proposed actions are not expected to jeopardize the integrity of any species or surrounding area permanently.

Extraordinary care has been displayed by PMRF for the past 35 years, always, always keeping SAFETY as their primary mission.

Exciting, are the transfer potentials which The Test & Evaluation Community would inevitably bring. Technology transfers that could help our Environment such as NASA's Pathfinder using ERAST(Environmental Research Aircraft Sensor Technology to measure air pollution, or use Precision Spectral Photography to collect data for all kinds of applications, Mapping, identifying undesirable vegetation... etc.

Congress has recognized PMRF's unique potential and it's value in a program of such importance. TBMD will allow a steady but solid growth, one that our island desperately needed.

Every area of our lives could be greatly augmented by these technologies. As long as Safety remains their first priority, and the people of Niihau are satisfied with their collaboration I am ready to endorse the Draft EIS. And look forward to our community rolling up our sleeves and working together to try to harness some of the strength these Enhancements will bring.

Mahalo,

Nani Marston

9-302

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0900
23 OCT 1998

Ms. Nani Marston
Kilauea, HI 96754

Dear Ms. Marston:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement.

We recognize concerns relating to safety; let me assure you that safety is of paramount concern to us and that we take all necessary precautions in our testing programs. Within that framework, this proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses. We who have the privilege of working at PMRF will continue to do all we can to maintain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0175

(1)

P-W-0176

TO: DEPARTMENT OF THE NAVY FOR: PUBLIC HEARING ON DRAFT EIS
PACIFIC MISSILE RANGE FACILITY RE: PROPOSED TBMD PROGRAM
FROM: GABRIELA TAYLOR DATE: April 25, 1998
5620 Keapana Rd.
Kapaa, Hi. 96746

I am here today to oppose the expansion of the PMRF missile testing program (PACIFIC MISSILE RANGE FACILITY ENHANCED CAPABILITY) which would impact Kauai, Niihau Tern Island, Johnston Atoll and open areas northwest of Kauai within and outside US territorial waters. I am responding to the sections I have read in the DRAFT EIS.

There is no question in anyone's mind about the status of Tern Island as a designated US Wildlife Refuge. The National Wildlife Refuge System Act defines its mission "to administer a national network of lands and waters for the conservation, management and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations. The Act requires public involvement in decisions to allow new uses of national wildlife refuges.

Therefore, it is clearly illegal for Tern Island , a national wildlife refuge for almost 90 years, to be used for building and operating a missile launch pad. This is why. There are two endangered species nesting and inhabiting the island at various times, the green sea turtle and the Hawaiian monk seal. Numerous species of threatened sea birds use the island as nesting grounds. Major research on these animal is done on Tern Island under the guidance of the US Fish and Wildlife Service. Studies of these animals would be restricted up to 56 days /year. Here are some factors which would impact the animals negatively.

a) Proposed target missiles at Tern Island use solid propellants and according to the EIS Potential soil contamination could occur from rocket emissions forming hazardous residues in concentrations which would dictate a hazard to human health. (I assume that would include the animals and birds nesting on Tern island) Portable generators make noise and create pollution. The USFWF uses solar power.

b) Construction of a new facilities (up to 6 months) and renovation of existing structures would create noise, toxic waste, additional material transport (a 3,000-horse power engine for the tug), and take up more

(2)

space on the small island. Also, construction workers inhabiting as well asworking and moving around the island would interfere with nesting and with vocalization of animals and birds.

c) Light from the proposed operations and increased personnel on the island is dangerous to the animals. (The volunteers and researchers with USFWS do not turn on lights at night unless they are shielded or red in color.)

I could go on and on, mentioning toxic consequences of radar, sonic boom, Ground Hazard areas, and other environmental assaults on this important wildlife research lab. I want to emphasize that the same considerations apply to Johnston Atoll which is also a designated National Wildlife Refuge, and unfortunately has been misused by the military since the 1940s. It was used to test nuclear weapons in the 1950s and 60s and served as a dumping ground for obsolete chemical weapons. Yes, it is horrifying to realize those activities were carried on by our military on an established Wildlife Refuge! Johnston Atoll provides breeding grounds for 14 species of nesting birds and wintering grounds for 5 species of shore birds and in addition, has a rich coral reef highly valued by marine biologists. I also question the effect building a missile launch pad might have on the coral reef.

Clearly, there are too many reasons that the Navy will legally not be permitted to expand there operations to those Tern Island and Johnston Atoll .They would obviously not be in compliance with the Endangered Species Act or the US wildlife Refuge Act. (That is why this is a draft EIS.) Our precious natural environment will be impacted negatively by the proposed PMRF Enhanced Capability plan. Frankly, I don't see any appropriate place for expanded missile testing in the Hawaiian islands or the surrounding ocean area.

Furthermore, I believe the public has been misled about the increased availability of jobs for locals. (as they were for STARS) Please tell the truth. PMRF will continue with the NO ACTION ALTERNATIVE by maintaining the jobs that exist. The defence industry technical experts that come here from off island will perhaps add a few dozen hotel rooms and car rentals. Bob Mullens commented in the Garden Island that perhaps over the "long term he would like to see Textron provide 30 jobs on Kauai." Again, I ask you to just tell the truth .

Sincerely, Gabriela Taylor

9-303

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0928
23 OCT 1998

Ms. Gabriela Taylor
5620 Keapana Road
Kapaa, HI 96746

Dear Ms. Taylor:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis previously produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

As to threatened and endangered species such as the monk seal and green sea turtle, we are in consultation with U.S. Fish and Wildlife Service and the National Marine Fisheries Service under the Endangered Species Act as indicated in Appendix K.

While the Navy does not claim that the proposed enhancements will have a substantial impact on employment or the local economy, we recognize that business and civic leaders consider the proposal to enhance PMRF's capabilities a positive development for the economic stability of Kauai and the larger Hawaiian community.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

9-304

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0176

STATEMENT By William GEORGI P-W-017

I wish to address three issues: First, the Theater Ballistic Missile Defense (TBMD) program; second, Pacific Missile Range Facility (PMRF) as a neighbor; and third, the suitability of PMRF for TBMD testing.

As the 21st century dawns, we face the challenges of the aptly named **new world disorder.** Instead of two superpower blocks, we find a world with the United States, a somewhat unified Europe, the remnants of the old Soviet Union, several second tier powers (such as Japan, South Africa, and Australia), many developing countries, and too many rogue nation-states. Some heavily armed rogue nations have acquired ballistic missiles and weapons of mass destruction (poison gas, biological, or atomic weapons). In some cases, the threat is use of these terrible weapons against innocent bystanders to prevent US or UN intervention in a war of aggression. Another threat is use against United States forces.

TBMD is designed to shield both U.S. military and innocent civilians. It lets our military defend themselves. We send our young men and women into a hostile world to protect our interests. We owe them the right of self-defense. It's like peace officers wearing bullet-proof kevlar vests. For many of us, the threat is not to some faceless soldier, but to our children and grandchildren who are or will soon be serving their country.

I submit that PMRF has been a good neighbor.

PMRF brings $112 million dollars annually to Kaua'i and directly employs about 800 people. It provides a technology benefit. PMRF has hundreds of computers and other electronic equipment that need to be programmed, maintained, and operated. PMRF supplies technical jobs. If Kaua'i is to keep the best and brightest of our children, we must supply both education and challenging, rewarding jobs. PMRF encourages both.

PMRF has been a good neighbor during emergencies. I won't dwell on PMRF's role after Iniki. PMRF supplied helicopters for firefighting, for searches, and for rescues. PMRF range boat and helicopter crews rescued damaged boats, freed a whale entangled in net buoys, and evacuated sick or injured seamen to medical facilities. Recently, a PMRF team air-lifted out a Niihau resident who was gored by a wild pig.

Navy boats, ships, and aircraft stay well away from marine mammals. If whales show up in an exercise area, the exercise is moved or postponed until the whales leave. Ne ne released in Kalalau valley have moved up on Makaha Ridge near the PMRF installations. From what I've read in the newspapers, both whales and geese are safer at PMRF than in sanctuaries.

The PMRF hazardous materials program is strict. Hazardous materials, even cleaning products that are in our homes, are strictly controlled. Hazardous waste is disposed of properly. Improper disposal means disciplinary action. PMRF goes all out to reduce hazardous waste. The Navywide goal is to reduce hazardous waste by 50% by the end of next year. PMRF has already reduced it by over 70%.

As part of the expansion, PMRF seeks to remove hazardous waste from an illegal dump site...one it didn't even create!

PMRF is suitable for testing TBMD. It is the largest instrumented open ocean range in the world. It has minimal ocean and air traffic. Adding in Kaua'i's low electronic noise, PMRF is unparalleled.

In conclusion, I believe that we owe TBMD to our servicemen and servicewomen. PMRF has been a responsible, helpful neighbor. PMRF is the logical place to conduct TBMD testing. Considering these facts, the PMRF range enhancements should be approved.

WILDLIFE Refuge @ Kennedy Space Center in Florida of 8 40 years...

9-306

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0901
23 OCT 1998

Mr. William Georgi
1755 Kelaukia
Koloa, HI 96756

Dear Mr. Georgi:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0178

P-W-0179 E.I.S. Draft Hearing Testimony

4-25-98

Hello, my name is Alberto Partida. I have lived and worked in Kauai for over 20 years, as a self employed High Tech advisor and ~~medicine~~ repairman. Another 35 years were spent living and working in California and many other countries in our World; this testimony is not influenced by fear of losing my job & home In my search to find my native roots, I discovered we are all related. A world family. All worthy members of our planet Earth which is also a family member of our Universe. This Testimony is my legal defense for our world family and planet Earth in honor of Earth Day. The issue here is not just a local issue. Its a world environment concern. Perhaps a world Court concern issue. I love my country of America and all countries, people, animals, plants and all life forms in our planet. My 4 years Training experience in classified Nuclear warfare design branch of the U.S. Navy (30 yrs ago) gives me special insight and interest in new warfare developments. Especially the Unnoticed/unseen covert special forces warfare tactics such as germ, chemical, frequencies (electronics) mind control or culturecide, or other military Enhancements

For 20 years I have watched PMRF

grow unnoticed & unchecked from a small low impact weather monitoring station, to Worlds best Nuclear warfare Naval training base, To Stars missile testing, and now to proposed 4 Billion dollar U.S. missile testing industry. Enough perhaps to buy the Island of Ni'ihau and more votes, people, and land rights. A very large tax money sum for a very obsolete warfare system. Stars of Starwars is but a deceptive front to milk the Tax payers. Its convincing to the majority of people not interested in knowing real truth; real enemy we are investing in. A missile attack can be traced to sender. → subject or vulnerable to retaliation.

For generations America has tested its ~~more~~ less traceable covert warfare methods on American Indians and Native People World wide, including the Hawaiian people. Exterminating millions like insect pest to better steal their lands. In last Gulf war America tested chemical warfare on its own young military men. Read "Psychic Warrior" by David Morehouse. A generation or more ago our U.S. Government issued blankets as peace offering to American Indian Mothers and Babies. Blankets had small pox virus which we knew would exterminate Indian populations. Hawaiians

experienced same germ warfare tactics. It was no accident like history teachers tell us. From our American government perspective this planned world wide extermination genocide of pesty Native People had no significant impact. They were able to ~~mig~~ mitigate problem, relocate them on useless land until oil or other minerals were discovered. Mind control Culturecide ~~Missionary~~ warfare is the most perfected and foolproof of all modern warfare methods. It focuses on destroying a people's belief system and way of life. The Christian Missionaries still practice this deception tactic to brainwash people into the Christian American way. To worship the afterlife more than life, is insane and dysfunctional, and very distructive. Just look around for proof! (Waste Crisis) Presently we have a large group of christian Missionaries touring the pacific Islands. This is interesting because this buildup of missionary and military focus on Hawaii and Pacific Islands seems like a defense against Hawaii Independence from America, and its distructive value System. More so than some unseen small Third World Enemy. → Its deceptive tactics at its best

9-308

4-25-98

The military Industry takes orders from its government Industry, which takes orders from its people, the U.S. consumer, whom consumes up to Ten times more energy than other modern people in the world. Most of which is spent on luxury and social status, while millions of other people in our world are suffering and dying from lack of basic survival needs. If we really want to protect our families, Nation, and Earth, we need to take more responsibility for our wasteful Reality. Stop blaming the monster industries which we create to murder and steal, so we can ~~feed~~ horde and have our luxuries.

Today most of you present might not relate Federal & military job security as bait. ~~similar to the small pox blankets, and other~~ Psychological warfare at its best. clever tactics recorded over and over for thousands of years. What we have here in this E.I.S proposal is another Trojan horse Job offering. Native people, animals, and plant life have been exterminated frequently with no significant impact and everything was mitigated to please the American consumer. Maybe its time to Wake up & wise up; America. Be part of the solution, not the Waste problem Value System. Mahalo,

4 of 4

Alberto Partida

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0929
23 OCT 1998

Mr. Alberto Partida
Kauai, HI

Dear Mr. Partida:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement (EIS). We appreciate your opinions on the Draft EIS, as public input is critical to the EIS process.

Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

While the Navy does not claim that the proposed enhancements will have a substantial impact on employment or the local economy, we recognize that business and civic leaders consider the proposal to enhance PMRF's capabilities a positive development for the economic stability of Kauai and the larger Hawaiian community.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0179

P-W-0183

April 28, 1998

Pacific Missile Range Facility Enhanced Capability
Draft (DEI S) hearing
Honolulu, HI

Some unlucky islands are being targeted by the U.S. Navy with financial support of Senator Inouye for launch sites for missiles. The Navy is looking to build launch sites on Ni'ihau, Tern Island and Johnston Atoll. The upgrade is being sold by Pacific Missile Range Facility at Mana in the name of jobs at a time when the State is so vunerable and looks to quick fixes. An editorial in our Garden Island Newspaper (Wednesday, April 22, 1998) tells readers that our island is known for little else than a visitor attraction and if we allow the expansion, it will bring us much prestige. What cheap statements! Of course it is an extraordinary temptation to the Navy to disregard protection of irreplaceable natural resources. Tern Island is a National Wildlife Refuge and Ni"Ihau is Hawaiian land. It was only a few years ago that the Hawaiian Island of Kahoolawe was being bombed on a regular basis. So much for the Navy's respect for Hawaiian land.

1998 has been designated as the Year of the Ocean. This designation suggests that there is a growing awareness of the intrinsic environmental and cultural value of our oceans. Marine protection, Research and Sanctuaries Act was passed in the Congress of the United States. I read this as a committment to good management of our ocean resources, the coral, sea-life and submerged lands yet to be born. A secure and healthy habitat is not one with human domination in mind especially when the human mind is focused on impact by missile launching sites, however tempting these islands would be for military targets, however tempting these islands would be for jobs. Water around the shoals is shallow. It is unknown how the trememdous vibrations from launching would impact the breeding animals and birds. The ground hazard area radius of 2,000 feet barely excludes the Wildlife Refuge. Shoals are vunerable to Tsunami action and hurricanes.

Johnston Island serves as a site for chemical and nuclear waste storage. This storage includes mustard gas filled projectiles, nerve gas and the chemicals that were moved to Johnston from Germany. There have been many serious infractions of the operating conditions set forth in the EPA permit. The cost for contracts to operate the disposal system exceed one billion. Human error has exacted a terrible price at Johnston. Add to the present problems a launch pad located close to the storage dump and you have the potential for disaster.

I submit that the Navy should be refused the three sites, Ni'ihau, Tern Island and Johnston Atoll as the sites of choice. The ocean is the world's treasure chest of immeasurable riches. It is up to all of us as citizens to stop habitat destruction and preserve our oceans as safe non-polluted environments for future generations.

Marilyn Pollock
Hanalei, Kauai, Hawaii
P.O. Bx 312
Hanalei 96714
Hi

Marilyn Pollock

9-309

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0930
23 OCT 1998

Ms. Marilyn Pollock
PO Box 312
Hanalei, Kauai, HI 96714

Dear Ms. Pollock:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement (EIS). The views of concerned citizens are a crucial element of the EIS process. Our country was built on the idea that we all should be able to express our views and be heard.

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

While the Navy does not claim that the proposed enhancements will have a substantial impact on employment or the local economy, we recognize that business and civic leaders consider the proposal to enhance PMRF's capabilities a positive development for the economic stability of Kauai and the larger Hawaiian community.

The leaders of our country must make many difficult decisions concerning how and where to conduct activities that will provide us with a strong defense. PMRF already conducts many testing functions vital to our national defense. The Enhanced Capability EIS is analyzing the environmental impacts of enhancing its capabilities to perform testing of missile systems to protect our armed forces and allies.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

9-310

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0183

P-W-0185

Statement of
Vice Admiral Robert K. U. Kihune, USN (Retired)
in consideration of
Pacific Missile Range Facility (PMRF) Enhanced Capability Environmental Impact Statement (EIS)

My name is Robert Kihune. I am a retired Vice Admiral, having served in the Navy for 35 years. I would like to submit my testimony for the record.

I am extremely encouraged and proud when I attend a hearing such as this, where people have the FREEDOM of expressing both their concerns and support for a project. We often take our freedoms for granted and forget the price of the freedoms we enjoy today. Our military is the protector of those freedoms against any adversary from without our nation. As such, it must have the best equipment and means to overcome any aggressor in conflict, should all peaceful solutions to prevent conflict fail. I do not believe that there is any person in this room that would want to see our sons and daughters go in harms way with deficient and ineffective equipment, as well as being poorly trained.

The mission of the Pacific Missile Range Facility (PMRF) is to ensure that this never happens. To accomplish this, it is situated at one of the most ideal locations in the world to conduct both test and evaluation of new technologies and training of our military forces. The vast open ocean areas surrounding the facility and the relatively low merchant and commercial aircraft traffic through its test and training areas, coupled

with its state-of-the-art three dimensional tracking capabilities, have always characterized this facility as a national asset.

Today, the Navy is proposing to enhance the capabilities of PMRF to accommodate the changing threats of the 21st century. Despite our nation's continuous initiatives to eliminate development and sales of weapons of mass destruction, such as ballistic missiles that are capable of nuclear, biological and chemical warfare, high tech weapons such as these are proliferating many volatile nations. Consequently, there is no question that the United States must develop countermeasures to these emerging high tech weapons systems. PMRF is the facility that can best provide the necessary test area with minimal or no impact to both the public and the environment.

Since the facility first became operational in 1964, it has had an exemplary record of working with the people of Kauai and the State of Hawaii to ensure that each new capability added to the range is safe, both to the public and the environment. The PMRF staff and workers are residents of Kauai and are sensitive to environmental and safety concerns of other residents of the island. They have been, and continue to be committed to preserving a safe and culturally sensitive environment within and surrounding PMRF, including Niihau, Tern Island and Johnston Island. The plan for expansion reflects this commitment.

I thank you for the opportunity to testify in favor of PMRF's expanded capability proposal.

Ad Davis
1597 Hacelake St.
Hilo, HI 96720

9-312

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0932
23 OCT 1998

Admiral Robert K. U. Kihune (Ret)
1597 Haleloke Street
Hilo, HI 96720

Dear Admiral Kihune:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. As one of those who have put their lives on the line for the protection and defense of our country, we recognize your valuable perspective concerning the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

I appreciate the time and effort that you spent coming out to support us with your testimony at the public hearing in Honolulu. Let me assure you that we who have the privilege of working at PMRF want to do all we can to maintain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0185

P-W-0186

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

Although I agree & support the Navy's upgrade of the PMRF facility/system, I am concerned about the marine life effects on Tern Island. Particularly in regards to the monk seal. It is desirable that viable options be considered to negate or mitigate any disturbance to Tern Island. We must rely on the U.S. Navy to be responsible in this area

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name G. Littlefield
Address 98 Bougainville A
Honolulu, HI 96818

April 1998

Printed on recycled paper

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 09 33
23 OCT 1998

Mr. G. Littlefield
98 Bougainvilla Place
Honolulu, HI 96818

Dear Mr. Littlefield:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Draft Environmental Impact Statement (EIS). Your comments have been made part of the record for the EIS.

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

As to threatened and endangered species such as the monk seal, we are in consultation with the National Marine Fisheries Service under the Endangered Species Act as indicated in Appendix K.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0186

9-313

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I AM FOR THE EXPANSION
BECAUSE THE ECONOMY OF
KAUAI + NIIHAU NEEDS IT.
THE NAVY HAS ALSO BEEN AN
EXCELLENT STEWARD OF THE LAND
THERE.

Please place form in the comment box or mail to:
- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name MIKE ROSS
Address
3675 ALA POHA PL #504
HNL, HI 96818

April 1998

Printed on recycled paper

9-314

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0934
23 OCT 1998

Mr. Mike Ross
3075 Ala Poha Place #504
Honolulu, HI 96818

Dear Mr. Ross:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement. Our country was built on the idea that we all should be able to express our views and be heard.

While the Navy does not claim that the proposed enhancements will have a substantial impact on employment or the local economy, we recognize that business and civic leaders consider the proposal to enhance PMRF's capabilities a positive development for the economic stability of Kauai and the larger Hawaiian community.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0187

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

~~The issues of environmental impact, job creation~~
The environmental and economic issues are minor, when compared with the most important issue regarding the expansion of the PMRF operations. That is the issue of morality, and it is immoral to continue to expand a military/industrial complex that is far too large already, particularly in Hawai'i.
Monies for this project should be used for peaceful purposes, such as global dis-armaments, scientific research, and education. I am embarrassed and insulted that my tax revenue is being used for such purposes as the PMRF expansion.
– Charles H. Meyer Jr

Please place form in the comment box or mail to:
- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name CHARLES H. MEYER, JR.
Address 104 ROYAL CIRCLE
HONOLULU, HAWAI'I 96816

April 1998

Printed on recycled paper

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0935
23 OCT 1998

Mr. Charles H. Meyer, Jr.
104 Royal Circle
Honolulu, HI 96816

Dear Mr. Meyer:

Thank you for your comments on the Pacific Missile Range Facility Enhanced Capability Draft Environmental Impact Statement (EIS). We appreciate your opinions on the Draft EIS, as public input is critical to the EIS process. Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0188

9-315

28 April 1998

Alternative Summary for PMRF Enhanced Capability EIS

During the past ten years I've read and commented upon several EIS's involving rocket launches and expanded military activities. I usually disagreed with their summaries, which always concluded that there were no significant impacts that couldn't be mitigated. I began to wonder why people who wrote the EIS documents always reached the same conclusion. Was it a standard feature of their text processors? Had they been trained that there is no impact which is not mitigable? Then it occurred to me that maybe they had never seen an example to follow. So, in the interest of providing a precedent for future EIS documents, I offer an alternative summary for the PMRF Enhanced Capability EIS.

Having analyzed all the impacts of missile launches at PMRF, on Niihau, and at sites in wildlife refuges, we conclude that the Proposed Action would be so potentially damaging to the environment that it would be an unmitigated disaster. Launching rockets in wildlife refuges, which are set aside to minimize impact from human activities, is egregiously inappropriate. Launching rockets on Niihau entails a significant risk of large brush fires and would inevitably pervert the culture there. The damage might not be conspicuous in the short term but, by the time the damage became evident, any mitigation measures would be woefully inadequate.

Furthermore, from public comments we have learned that the Cold War is over. The major threats to US security -- proliferation of weapons of mass destruction and ballistic missiles, terrorist attacks -- cannot be eliminated by missile defense. The funds that would be spent on missile defense could be used more effectively for other programs -- e.g. the Cooperative Threat Reduction program to support Russian efforts to dismantle missiles and to store securely the nuclear warheads from them. It follows therefore that many of the proposed tests are unnecessary and that there are better uses -- military as well as civilian -- for the resources that would be used for them. We conclude that the Proposed Action must be rejected.

We also analyzed the No Action alternative, which would continue operations at PMRF at current levels. The Restrictive Easement for STARS and Vandal launches would continue until the end of 2002. However, no STARS launches are planned and the Vandal missiles are nearly gone. Furthermore, none of the testing scenarios described in the EIS require launches of large rockets like STARS from PMRF. Therefore, the Restrictive Easement can be terminated earlier than 2002. We conclude that the No Action alternative must be rejected because the scope of rocket launch activity at PMRF can be reduced.

Having rejected the Proposed Action and No Action alternatives, we opt for a new alternative which emphasizes opportunities for civilian research using facilities at PMRF, which would be renamed the Pacific Maritime Research Facility. As the new name suggests, emphasis would be given to oceanographic research using facilities at PMRF including the underwater hydrophone array. Navy training activities would continue but launches of large rockets such as STARS and Vandal would end. The north end of PMRF could be returned to the State of Hawaii for expansion of Polihale State Park or other uses pending analysis of the

lead contamination in the soil near the Vandal launch site. This alternative would have some significant impacts, but we have identified mitigation measures for all of them. To mitigate the loss of the opportunity to watch large rockets blast off, PMRF would sponsor a large fireworks show every July 4 and December 31. The Star Wars film trilogy would be shown regularly at the PMRF theater. Instead of rocket motors, Kamokala Caves could be used to store supplies that would be needed in case another hurricane hit Kauai. Recognizing the important role that PMRF played in helping Kauai recover from Hurricane Iniki, a rapid response disaster relief team would be established at PMRF. This team could respond to requests for aid in the aftermath of hurricanes throughout the Pacific.

9-316

This new alternative could have a potentially significant impact on important Cold War era sites at the Kauai Test Facility (KTF), which was established in 1963 to provide facilities to launch sensors to observe nuclear weapons tests if the US decided to resume atmospheric testing. A possible mitigation measure is to convert the STARS launch tower to a memorial to the end of the Cold War. Finally, the revenue lost because STARS launch personnel would no longer visit Kauai would be partially offset by scientists who would come to use PMRF oceanographic facilities. However, these scientists would probably spend less than the $189 per day for lodging and subsistence which the EIS assumes for current visitors to PMRF.

Michael Jones
47-682-7 Hui Kelu St.
Kaneohe, Hawaii 96744

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0936
23 OCT 1998

Mr. Michael Jones
Department of Physics and Astronomy
University of Hawaii
2505 Correa Road
Honolulu, HI 96822

Dear Mr. Jones:

Thank you for your comments to the Pacific Missile Range Facility Enhanced Capability Draft Environmental Impact Statement (EIS). Your comments have been made part of the record.

The conclusions reached in the EIS represent the combined opinions of various technical, environmental, sociological, and other experts in their fields. We believe these conclusions to be representative of the state of scientific knowledge in these areas.

Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0189

April 28, 1998

Ms. Vida Mossman
Pacific Missile Range Facility
PO Box 128
Kekahi, Hawai'i 96752

RE: Proposed PMRF Expansion

Because two issues have been cited as being driving forces towards expanding the activities of PMRF, national security and economic benefits, I would like to address these two issues specifically.

The communities of Kaua'i and Ni'ihau have been told that more jobs will be available if this proposal moves ahead. The Hawai'i public has been assured that for defensive purposes, the US military must enhance its missile systems.

Hawai'i is in terrible economic shape. People are hurting, families are suffering. We are caught in a place where the promise of income becomes more important than how that income might be generated. Businesses are going bankrupt; corporations are laying off employees; people on public assistance face deep cuts if they don't find work under new federal welfare reform laws; the Hawai'i Legislature is trying to balance a severely shrunken budget.

Other places in the US may be seeing better times. However, the one group that does not suffer whatever the economic times might be, are the weapons contractors. Building newer and better weapons of all sorts is big business. Federal cuts to the military may close bases or cut staff, but more money is given to the development and construction of weaponry than even the Department of Defense or the Pentagon asks for.

AND, not all of this weaponry is manufactured for the defense of America. The United States is the largest international weapons dealer in the world.

So, at PMRF, we are proposing to expand our capabilities to defend America against supposed enemies who might use weapons that they likely purchased from the United States. And the economic benefits all go back to the same few corporate monopolies.

If the US stopped selling weaponry globally and put more energy into nonviolent conflict resolution (it is millions of dollars in arrears on United Nations dues), America would find far better use of our tax money spent on creating jobs that provide meaningful work and promote a sustainable future.

The real enemy is not "out there" where we can shoot missiles at it, but at the root of this military industrial system that feeds on the people to keep itself alive.

Nancy Aleck
concerned community member

PO Box 61212
Honolulu, HI 96839

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0936
23 OCT 1998

Ms. Nancy Aleck
PO Box 61212
Honolulu, HI 96839

Dear Ms. Aleck:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

We appreciate your opinions on the Draft EIS, as public input is critical to the EIS process.

Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

While the Navy does not claim that the proposed enhancements will have a substantial impact on employment or the local economy, we recognize that business and civic leaders consider the proposal to enhance PMRF's capabilities a positive development for the economic stability of Kauai and the larger Hawaiian community.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0191

NEPA Hearing
April 28, 1998, DAV Weinberg Hall, 2685 N. Nimitz Hwy, 5:00 PM

In re the Passage of:	) Pacific Missile Range Facility
Frederick A. Lins,	) Environmental Impact Statement
Concerned Citizen	)
	) Proposed enhancements of the PMRF
	) to support a new Theater Missile
	) Defense Program are considered in an Environmental
	) Impact Statement
	)

I am the owner of a small business incorporated in Hawaii to offer computer related technology services to commercial and government entities here in Hawaii. I employ seven technicians including three part time students to sell and service robotic tape data library systems. We also are developing a capability for our federal government customers to store multimedia content in our data libraries for on-demand transmission over the Internet to their constituencies around the world.

As a government contractor, I am very sensitive to the treatment of my current and prospective contractors by our local community. An emotional rejection of the due diligence arguments presented by the PMRF in their EIS would impart a very negative image to not only PMRF management, but to all federal officials responsible for funding work in Hawaii for small companies such as my own.

As a father, I strive to teach my son the application of logic to community issues such as the PMRF enhancement program. Now as Oahu residents, PMRF issues are not really our business but rather the rightful concern of the residents of Niihau and Kauai. However, we see other Oahu based special interest groups trying to involve themselves in these issues and must take action if only to counter their potential irrational, negative impact on a process which could result in high-technology job possibilities for him in the future.

Lastly, as a taxpayer with a hope of retiring here in Hawaii, I support any new federal business which will bring tax receipts into this state and lighten the burden which we all must otherwise carry by ourselves.

Dated this 28th day of April, 1998

Frederick A. Lins

Frederick A. Lins
President
August Enterprises Inc.
4410 Pahoa Ave.
Honolulu, Hawaii 96816
808.226.1324, 808.737.5972 Fax
www.stkhi.com lins@stkhi.com

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0939
23 OCT 1998

Mr. Frederick A. Lins
President
August Enterprises Inc.
4410 Pahoa Avenue
Honolulu HI 96816

Dear Mr. Lins:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai and in Hawaii.

The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0192

9-319

P-W-0198

Donald A. and Shannon M. Morrison
1423 Hoakoa Place
Honolulu, Hawaii 96821-1161

April 28, 1998

To Whom It May Concern:

Re: PMRF Barking Sands
Public Hearing April 28, 1998

We support the United States Navy and its efforts to upgrade the capabilities at the Pacific Missile Range Facility on Kauai.

This is vitally important and needs our support for the following reasons:

- As the Barking Sand range allows the testing that will generate a defensive system against short and medium range ballistic missile systems, it will save lives. The defense of people from these deadly weapons is a worthy goal and one which Americans must support.
- The people of Niihau and Kauai need the economic boost that this enhancement will provide. The US Navy has been working with the people of Niihau for over ten years and the people of Kauai for thirty-five. Let the Navy stand on their record. They have been good neighbors and there is no reason to believe that this will not continue.
- Without this enhancement not only will the people of Niihau and Kauai lose the economic benefit, the future of PMRF and other related facilities in Hawaii locales would be in doubt. PMRF will eventually cease operations as it will become obsolete. This would start a chain reaction of other closures, the impact of which will reach far beyond Kauai. With Hawaii's dismal economic outlook, we need to retain these jobs and this facility.

We ask that this project be allowed to proceed to protect the lives of men, women and children in the future and to prevent any additional deterioration of our economy.

Yours truly,

Donald A. Morrison
Shannon M. Morrison

9-320

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 09 54
23 OCT 1998

Mr. and Mrs. Donald Morrison
1423 Hoakoa Place
Honolulu, HI 96821-1161

Dear Mr. and Mrs. Morrison:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0198

4-26-98

I AM AGAINST EXPANSION of THE PMRF ON KAUAI

C Patrick Stack

C. PATRICK STACK
1918 Ho'one Rd
KOLOA, HI 96756

P-W-0200

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0956
23 OCT 1998

Mr. C. Patrick Stack
1918 Hoone Road
Koloa, HI 96756

Dear Mr. Stack:

Thank you for your comment on the Pacific Missile Range Facility Enhanced Capability Draft Environmental Impact Statement (EIS). We appreciate your opinions on the Draft EIS, as public input is critical to the EIS process.

Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0200

9-321

P-W-0212

Charles G. King
113 Melia St.
Kapaa, HI 96746

April 21, 1998

Ms. Vida Mossman
P. O. Box 128
Kekaha, HI 96752-0128

Dear Ms. Mossman,

Subject: PMRF Enhancement

I am writing in support of the proposed enhancement to the Pacific Missile Range Facility at Barking Sands. Over thirty-five years PMRF has become a fine neighbor on the westside. As well as employing more than 800 civilian workers with an annual payroll of $45,000,000, they participate in life on the island. They're here for the community in times of need with rescues, evacuations and the like. They spearhead special events like Toys for Tots and provide manpower when asked for island wide events like The Hospice Fourth of July Celebration. Top officers sit on and help guide organizations such as the Kauai Chamber of Commerce. Their numbers and high levels of competence and training make available to the rest of Kauai programs that we might otherwise not experience such as the Seven Habits training by Steven Covey. While the course was offered on Kauai, I feel that the interest shown by PMRF, the numbers they were able to add to it, contributed to its success on the island. It should be recognized that these jobs attract high level personnel who also give back to the community.

These are on top of the obvious contribution their payroll and employment make on the island. There is, also, time spent on island by outside personnel who use our visitor facilities. The proposed makeover of PMRF will keep it technically capable of performing its national mission. It will elevate it's importance in the nation and could become a catalyst for science and high technology on Kauai. Kauai's business community has been looking towards industries that can strengthen our economic outlook. Science and technology have always been high on our list. This is what PMRF is bringing to the island.

Sincerely,

Charles G. King

9-322

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0902
23 OCT 1998

Mr. Charles G. King
113 Melia Street
Kapaa, HI 96746

Dear Mr. King:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0212

P-W-0220

3 May 1998

Comments on the Pacific Missile Range Facility (PMRF) Enhanced Capability
Draft Environmental Impact Statement (DEIS)

1) Alternatives

The DEIS makes no comparison of the impacts of theater missile defense (TMD) tests near PMRF with those at the Kwajalein Missile Range (KMR) or at the Eglin Gulf Test Range (EGTR). KMR was one of the sites selected in the 1994 TMD Extended Test Range EIS. The Feb. 1998 Theater Missile Defense Extended Test Range Supplemental EIS (TMDETR SEIS) examines impacts at EGTR. Doesn't NEPA require consideration of these alternatives, which seem to be sufficiently "reasonable" that they have been considered in other EIS documents? Even if Congress continues to mandate that PMRF be the primary range for testing Navy TMD systems, alternatives to PMRF and Niihau need to be considered for tests of land-based interceptors.

2) Missiles to be launched at different sites

The DEIS does not indicate which missiles would be launched at the different potential launch sites. This information is important to evaluate the adequacy of the ground hazard area (GHA) at each site and treaty compliance. For example, Niihau, Tern Island, and Johnston Atoll are not among the currently-allowed research and development launch sites for missiles with ranges exceeding 500 kilometers. (See also comment 8.)

3) Ground Hazard Areas (GHA)

The final EIS needs more detailed discussion of how the GHA radii were determined -- particularly because they range from 2,000 feet at Tern Island to 20,000 feet at Niihau. No justification is given for the different GHA radii (8,000 and 10,000 feet) for the two islands at Johnston Atoll; both of these radii are smaller than the nominal GHA radius for the Hera missile, which was developed to launch targets with a range adequate to go from Johnston to PMRF. The nominal Hera GHA radius is given as 7.2 kilometers (over 23,000 feet) in three previous environmental analyses. (See page 2-16 of the 1994 TMD Extended Test Range EIS, page 1-30 of the 1994 TMD Hera Target Systems Environmental Assessment, and page 1-21 of the 1994 Wake Island Environmental Assessment.) A simulation of debris dispersal from a plausible Hera failure by David Wright (see report cited in comment 4) indicates that some debris could hit 3.9 kilometers (about 13,000 feet) from the launch pad. The final EIS should indicate which missiles were used to determine the GHA radii and how quickly the Range Safety Officer needs to send the signal to the flight termination system so that debris from an off-course flight will be contained within the GHA at each potential launch site.

4) Missile reliabilities

The DEIS contains no information about the failure rates of the missiles that would be used. The final EIS should include this information and estimate the probability of a launch failure for the tests over the 30-year period being used to estimate cumulative impacts. Publicly-available information indicates 1 Hera failure (in the 8th test on 17 Nov. 1997) in 8 launches. Results from flight tests of Minuteman II and III missiles and more recent launches of refurbished Minuteman I missiles indicate a reliability of about 85%. (See the

6 March 1998 report "A Technical Assessment of the Launch Hazard Area in Cudjoe Key, Florida" by David Wright of the Union of Concerned Scientists and the MIT Security Studies Program in Cambridge, MA.)

5) Analysis of previous accidents as possible launch failures

The DEIS describes the process used to determine hazard areas, including the usual assumption that the Range Safety Officer will send the signal to terminate the flight within five seconds after the missile goes off-course. However, safety systems can malfunction and people can make mistakes so it is useful to examine past launch failures and analyze the impacts of similar failures for target launches at the sites considered in the DEIS. Two failures which seem relevant are the 20 Aug. 1991 Aries failure at Cape Canaveral and the Minuteman failure at Vandenberg AFB on 15 June 1993. The Aries missile went off course by nearly 90 degrees but the Range Safety Officer did not activate the flight termination system until 23 seconds after liftoff. The report (Red Tigress Incident Report dated 23 Aug. 1991) on this failure indicated that pieces of debris fell on land as far as 13,500 feet from the launch pad. The Minuteman at Vandenberg AFB did not pitch to the west as planned but instead continued vertically upward after liftoff. The Range Safety Officer terminated the flight at 8 seconds and pieces of flaming debris (including the 2nd and 3rd stages) hit the ground about 5,600 feet south-east of the launch pad (i.e. in the direction mostly opposite to the intended trajectory). According to newspaper reports, the brush fires started by this debris burned 400 acres on base plus 600 acres off base. Failures like these at PMRF or Niihau could start multiple brush fires.

6) Risk analyses, safety record for missiles near Kauai

The response to my comment about estimating the risk of missiles and debris hitting ships and aircraft states that, "Specific risk analyses have not been conducted for each vehicle proposed to be launched as part of the Proposed Action." How can one evaluate whether the risk of a fatality is below the limits specified on page 3-189 of the DEIS if the risk analyses have not been done?

The response also states that, for about 360 launches at the Kauai Test Facility since 1962, "there have been no ground or airborne failures that have caused injury, loss of life, damage, or destruction of any facilities or the environment." This "excellent safety record" which the Navy "expects to continue" does not mention the Dec. 1988 incident in which a missile fired from an airplane hit a passing cargo ship and killed one of its crew. Assuming the average number of 86 missile launches per year given in Table 2.2.1-11 for the entire period 1962-1997 implies a total of 3096 launches associated with PMRF during this time. If the probability of a fatality were less than 1 per million annually, as stated on page 3-189, the probability of one or more fatalities in 36 years is less than 0.000036. The fact that one fatality did occur suggests that the risk to the general public is greater than the goal given in the DEIS. If the annual fatality rate is taken from the observed 1/36, the probability of one or more fatalities in the next 30 years is 0.57.

7) Trajectories for targets and interceptors

The DEIS gives only a generic illustration (Fig. 2.3.1-4) of the trajectories and impact zones for target and interceptor. Specific trajectories and impact zones need to be given for various testing scenarios, including those illustrated in Figs. 2.3.5-1, -2, and -3. These details are needed to evaluate risks of various testing scenarios. The TMDETR DSEIS gives such details for various testing scenarios in the Gulf of Mexico. (See Fig. ES-3.)

8) Treaty restrictions on targets launched at sea

The DEIS states on page ES-2 that, "Any testing would comply with current U.S. policy concerning compliance with treaties and international agreements." Response 3 (page 7-112) to a comment on treaty compliance in my 16 June 1997 letter (page 7-110) further asserts, "Detailed discussion of political and international policy issues are outside the scope of this Draft EIS." Even if one accepts this assertion, there are treaty restrictions which are relevant to the proposed TMD tests and which have been discussed in related EIS documents. The 1998 Theater Missile Defense Extended Test Range Draft Supplemental EIS (TMDETR DSEIS) mentions test restrictions from the START Treaty, asserting that START bans target launches from sea-based platforms. It also states that targets launched from ships would have to have ranges less than 600 kilometers to comply with START. (This apparently refers to START Article V, paragraph 18a, which prohibits tests and deployment of "ballistic missiles with a range in excess of 600 kilometers, or launchers of such missiles, for installation on waterborne vehicles, including free-floating launchers, other than submarines.")

The Intermediate-Range Nuclear Forces (INF) Treaty appears to impose even tighter constraints. In particular, INF Article VII, paragraph 12d restricts launches of intermediate-range missiles used for research and development so that "the launchers for such booster systems are fixed, emplaced above ground and located only at research and development launch sites which are specified in the Memorandum of Understanding." The Jan. 1994 TMD Extended Test Range EIS explicitly refers to the INF restrictions in the following statement on page 2-10:

"In order to comply with the Intermediate-Range Nuclear Force (INF) Treaty, mobile and fixed sea launch platforms for targets would be located no more than 500 km (311 mi) from the planned target impact point."

Treaty restrictions are particularly relevant because some of the TMD tests illustrated in the DEIS seem to violate these INF and START restrictions. Fig. 2.3-3 indicates that launches from MATSS ships could occur as far as 1200 kilometers from PMRF and Fig. 2.3.1-2 shows a target launch from a MATSS ship that is over 500 kilometers from the ship from which the interceptor is launched. Section 2.3.1.3.4 indicates that land-based targets "would be launched from fixed or mobile launchers." The statement quoted above from the TMD Extended Test Range EIS implies that launching missiles with range greater than 500 kilometers from mobile launchers or from MATSS ships would violate the INF Treaty. These issues need to be addressed in the final EIS.

9) Treaty restrictions on air-drop targets

The TMDETR DSEIS states, "Current treaty interpretations allow air delivery of targets from less than 600 kilometers (372.8 miles) from the predicted impact point if no intercept occurred." The final EIS should explicitly state whether air-drop targets launched for TMD tests near PMRF will comply with this restriction and explain why the requirement for a fixed launcher in INF Article VII, paragraph 12d does not prohibit air-drop launches with range greater than 500 kilometers.

10) Treaty restrictions on encrypted telemetry data

On page 2-84 the DEIS states that development and testing of Navy TMD systems would involve encrypted telemetry data for both targets and interceptors. The final EIS should

address whether START or other treaties restrict such encryption.

9-324

11) Monitoring results from STARS launches

Several places in the DEIS (e.g. pages 4-5, 4-34, 4-49) refer to air quality monitoring done for the 1st STARS launch on 26 Feb. 1993 and imply that these results demonstrate that there are no significant air quality impacts from such launches. These statements are incomplete and misleading. The statements are incomplete because they do not mention the results of air quality monitoring for the 3rd STARS launch on 22 July 1994. They are misleading because the only monitors outside the ground hazard area and downwind of the launch pad were on a boat offshore for the 3rd launch; these monitors were not recording data when the exhaust cloud passed by. Therefore, none of the monitors outside the GHA provide any data relevant to the concentrations of hydrogen chloride (HCl) or other gasses in the exhaust cloud. Monitors 140 feet from the launch pad recorded HCl concentrations above their operating limits for both launches. The monitoring report of the 3rd launch concludes that the HCl concentration near the launch pad was at least 140 parts per million (ppm). The level deemed "immediately dangerous to life and health" is 100 ppm.

The problems I encountered getting copies of the monitoring reports and getting a response to my comments on them are summarized in my 19 June letter (page 7-138). The one-sentence response (page 7-139) is inadequate and contains the misleading assertion that STARS monitoring confirmed that "air contaminants were well below those levels which would potentially affect public health and safety and consistent with the modeling results." For the reasons indicated above, there are no STARS monitoring data on HCl concentrations in the exhaust cloud when it passed the GHA boundary. I enclose as Appendix A my three letters commenting on the monitoring for the 22 July 1994 STARS launch.

12) Computer simulations of exhaust gas concentrations

On page 4-34 the DEIS cites computer modeling of concentrations of HCl and other gasses done for STARS and asserts that "all exhaust concentrations were below applicable health-based standards" at the boundary of the ground hazard area both for a normal launch and for a termination just after lift-off. This statement is incomplete because it does not mention that the HCl concentrations were predicted to exceed the State of Hawaii guideline in both cases. (See comment 5 on page 9-16 and response 5 on page 9-19 of the Oct. 1993 Restrictive Easement Final EIS.) If the EIS authors contend that the State of Hawaii HCl guideline is not the appropriate health-based standard, they should say so in the final EIS.

13) Lead contamination in soil

The DEIS mentions (pages 4-27, 4-41) that soil samples near the Vandal launch pad and some KTF launch sites show lead contamination due to past missile launches. The DEIS asserts that, "Lead levels at both locations were determined not to represent a public or worker health and safety risk." The DEIS does not indicate who made this determination and on what standards it was based. Also, the Jan. 1996 Navy document referred to in the DEIS does not appear in the References in section 8.0 unless it is the reference listed as "Naval Facilities Engineering Command, Pearl Harbor, 1996" and labeled **for official use only**.

Some details of the lead levels are provided on page 3-46. The DEIS notes that no soil samples had lead concentrations above the State of Hawaii cleanup goal of 400 mg/kg prior to the 1994 Vandal launches. After five 1994 launches, two sites had lead levels exceeding 400 mg/kg. No reference is given for these measurements and no mention is made of cleanup or remediation efforts. Table 3.1.2-1 on page 3-85 indicates that there were 15 Vandal launches in 1994. What were the lead levels after all of these launches? How can the public get access to the results of the soil sampling? The Oct. 1993 Restrictive Easement Final EIS indicated (response 7 on page 9-20) that the Navy "will conduct a baseline survey for possible lead contamination around the Vandal launch site and conduct periodic monitoring to assess the potential impacts from all launches from that launch site."

It is important to note that paragraph 9 of the existing Restrictive Easement for STARS and Vandal launches (DEIS Appendix C) states that the GRANTEE will "clean up any debris or any releases of hazardous substances resulting from its launches." Furthermore, paragraph 14 states that the easement "shall be terminated" if there are "contaminants or pollutants found within the easement area as a result of the launches which significantly threaten public health, and which have not been previously discussed in the environmental documents for the project." I specifically raised this issue in my 16 June letter (page 7-111) but response 12 (page 7-113) does not address it.

14) STARS launches through 2030

On page 2-92 the DEIS mentions two programs, MCD-US and HLB, that are "reasonably forseeable" to involve STARS launches at KTF. No estimate is given for the number of such launches or when they might occur. No references to documents describing these programs are given. The HLB program is said to be a NASA program to simulate the X-33 performance; but, in November of 1997, NASA completed its EIS for X-33 and announced that X-33 would be launched in California. An article on PMRF in the 24 March 1997 issue of Aviation Week & Space Technology reported that a STARS launch to test an anti-satellite weapon was being considered at KTF. Why wasn't this program mentioned in the DEIS? What launches of STARS for national missile defense programs are being considered? More details need to be provided before one can assess cumulative impacts of these programs with other STARS and TMD launches.

A March 1995 report by the General Accounting Office (GAO/NSIAD-95-78) indicated that STARS was being considered for launching targets for TMD tests. STARS is also listed as a long-range target option (at Niihau, Tern, and Johnston as well as PMRF) in the table from the PMRF Enhanced Capability EIS Siting Group dated 8 Jan. 1997 (page 7-189). Why weren't these potential STARS launches mentioned in the DEIS? In addition to environmental impacts, use of STARS to launch targets for TMD tests seems to violate the ABM/TMD Demarcation Agreements signed by the U.S. and Russia in September of 1997.

15) Vandal launches through 2030

The DEIS gives no estimates of the number of Vandal launches expected. How can the cumulative impacts -- especially those due to lead contamination -- be assessed without this information? I was told at the 23 June 1997 scoping meeting that the Vandals were nearly gone. Is this is correct, the final EIS should provide information on what missiles will be used as replacements and how many launches of these missiles are anticipated. The impacts of these launches need to be evaluated by themselves and for their contribution to the cumulative impacts through 2030.

My 19 June letter (page 7-138) indicated past superficial treatment of the impacts of lead emissions from Vandal launches -- in particular that apparently there has never been an environmental assessment for Vandal and that the conclusion that there would be no significant impact from 72 Vandal launches was based only on assertions that no significant

impact was expected from 2 ZEST launches. The response (page 7-139) does not address my comments about Vandal launches.

16) Impacts of launches for "black" programs

Response 9 (page 7-112) to a comment in my 16 June 1997 letter about the impacts of secret "black" missile launch programs states that such classified programs cannot be discussed in public and asserts that "environmental effects of all activities conducted at PMRF are being analyzed." Even if details of these programs are classified, information about the number of launches should be (and sometimes has been) released. For example, a table of Sandia rocket operations at KTF from 1979 to 1991 indicates 41 launches of which 11 are labeled classified. Are classified launches at KTF likely to continue at a rate of about one per year? How can the public assess whether impacts of future programs are being adequately evaluated if even the number of launches is withheld? An example that highlights this dilemma is the proposal to develop and test rockets powered by nuclear reactors. At one time in the early 1990's, PMRF was on a list of possible sites for a nuclear propulsion test facility. What information would given to the public if such rockets will be (or have been) tested at PMRF?

17) Record of launches under existing easement

Table 3.1.2-1 on page 3-85 purports to contain the numbers of times that the Restrictive Easement was activated since Oct. 1993. The existing Restrictive Easement actually did not take effect until 1 Jan. 1994; a Memorandum of Agreement was in effect for launches in 1993. There seem to be errors in the entries in this table for the 10,000 foot GHA. The table lists 1 for Oct.-Dec. 1993 but the two STARS launches in 1993 were on 26 Feb. and 25 August. The table also lists 1 for 1995 but no STARS launches were publicly reported in 1995. Are these errors or were there secret launches of STARS or some other missile in 1993 and 1995? Finally, no source is given for the information in Table 3.1.2-1 and no information is given about how long exclusive control of the easement area was exercised. This information was requested in my 16 June letter (page 7-111).

The sentence before Table 3.1.2-1 asserts that PMRF has not closed the easement without conducting a launch. If this is correct, there were 15 Vandal launches in 1994. Although the easement does not explicitly limit the number of launches, the draft and final Restrictive Easement EIS (see page 2-5) stated that there would be "no more than eight Vandal launches in a 1-year period." Given that this commitment was not fulfilled, perhaps the revised easement should explicitly limit the number of launches.

18) Revised Restrictive Easement

The justification for revising the Restrictive Easement (RE) to remove explicit reference to the missiles to be launched and to extend the expiration date until the end of 2030 is very weak. The DEIS does not indicate what missiles and which launch pads require the easement. It does not address what targets for Navy TMD tests would be launched from PMRF. From the testing scenarios illustrated in the EIS (e.g. Fig. 2.3-2), it seems that such targets could be launched from ships or aircraft or from PMRF using small rockets because the Navy ships would be within 200 kilometers of PMRF. Therefore, it is questionable that the RE is needed for tests of TMD interceptors on Navy ships. Other testing scenarios (Figs. 2.3.5-1 and -2) show land-based interceptors launched from PMRF. However, there is no Congressional mandate to test land-based interceptors at PMRF and there are alternative ranges where land-based interceptors have been (and presumably will continue to be) tested. In conclusion, the

DEIS provides inadequate detail and no compelling reasons why the RE is essential for TMD tests.

The final EIS should examine other alternatives concerning the RE. One is to allow the RE to expire at the end of 2002 or terminate it even sooner. Another is to require the specification in the RE of the missiles and launch pads to which it applies and to explicitly limit the number of launches. At the very least, the final EIS needs to include a complete list of the missiles, and their ground hazard areas, that will be subject to the RE. Without this information, there is no way for the State of Hawaii or the public to assess whether the RE is needed and appropriate.

19) Niihau -- fire danger

The DEIS notes on page 3-140 that, because of the dry climate and kiawe vegetation, there is a potential for "very large fires" and that the island has no fire fighting equipment. Yet the proposed actions for dealing with a fire on the launch pad or from a failed launch are fire breaks around the launch site and imported fire fighting equipment consisting of a water truck, a bulldozer, and a helicopter airborne with buckets. This hardly seems adequate for dealing with nearly simultaneous multiple fires that could result from flaming debris from a failed launch -- even if the debris all hits within the ground hazard area. The 15 June 1993 launch failure at Vandenberg AFB (which presumably has more capable fire fighting equipment) burned 400 acres on base plus 600 acres off base. The final EIS needs to address in detail the capabilities of the proposed fire fighting equipment for dealing with fires from a launch failure similar to that at Vandenberg. It should also indicate what fire fighting equipment is available at PMRF.

20) Safety -- Tern Island

The GHA for launches on Tern Island barely excludes the U.S. Fish and Wildlife Service buildings on the island. The final EIS needs a detailed explanation of how this GHA was determined -- including what missiles would be launched and the GHA's for these missiles at other launch sites.

21) Safety -- Johnston Atoll

The final EIS should state what missiles would be launched from islands at Johnston Atoll. The most likely candidate seems to be Hera, which has a nominal GHA radius (7.2 km) that would include the JACADS incinerator and chemical weapons storage on Johnston Island.

22) Compatibility of missile launches in wildlife refuges

The final EIS should contain a statement from agencies responsible for the Hawaiian Islands and Johnston Atoll National Wildlife Refuges indicating whether the proposed launch and instrumentation sites are compatible with the purpose of these refuges. The 23 June 1997 letter from the Fish and Wildlife Service (pages 7-18 to 7-20) indicates that "it appears unlikely that launching missiles and establishing tracking instrumentation sites within NWRs would be found compatible with the objectives of refuge maintenance."

In his introductory remarks at the 28 April 1998 public hearing, Capt. Bowlin stated that launches at Tern Island and Johnston Atoll were "fall-back options" to air- and sea-launch targets. If this is correct, the final EIS should explicitly state that launch sites at Tern Island and at Johnston Atoll are not part of the preferred alternative.

23) Simulants for warheads containing nuclear weapons

On page 2-52, the DEIS states that simulants are used to test the effectiveness of TMD interceptors against missiles carrying chemical or biological weapons. Would dense material like depleted uranium be used to simulate a nuclear weapon? What are the impacts of an intercept that would produce depleted uranium debris?

24) Public access to related documents

Section 1.5.1 of the DEIS contains a list of related environmental documents. The final EIS should indicate how and where the public can access these documents and those listed as references in section 8.0. The specific documents I would like to review before the public comment period ends are documents in DEIS section 1.5.1 numbered 18, 19, 22, 23, 24, and 26 and the following documents listed in the References section 8.0 :

Gonzalez, R., 1997. Interview with Richard Gonzalez ...
Naval Facilities Engineering Command, Pearl Harbor. 1996. Environmental Baseline ...
Pacific Missile Range Facility, Commander, 1997. Pacific Missile Range Enhanced ...
Office of Naval Research, Washington, DC, 1995. Final Environmental Assessment ...
Range Commanders Council, 1997. Common Risk Criteria ...
U.S. Air Force, 1997. Final Theater Ballistic Missile Targets ...
U.S. Air Force, AltAir Flight Program, 1997. Programmatic Environmental ...
U.S. Army Space and Strategic Defense Command, 1995. U.S. Army Kwajalein Atoll ...
U.S. Department of the Navy, Theater Air Defense Program Executive Office ...

25) Background for TMD testing

Section 1.1.1 contains background information on PMRF and on the rationale for developing TMD systems. This section should also contain a summary of previous environmental analyses -- including what sites were considered and which sites were selected. In particular, the 1994 Theater Missile Defense Extended Test Range EIS contains a detailed examination of the impacts of TMD testing at four test sites -- White Sands Missile Range (WSMR) in New Mexico, Eglin AFB in Florida, Western Range in California, and the Kwajalein Missile Range (KMR), which includes the U.S. Army launch and instrumentation sites at Kwajalein Atoll (USAKA) in the Republic of the Marshall Islands. This EIS states on page 2-96 that PMRF was eliminated from consideration "because of the lack of the full range of land-based instrumentation sites to observe intercepts and inadequate land area for interceptor deployment or for placement of instrumentation that would have to be brought in from another range." The 21 March 1995 Record of Decision for this EIS decided to proceed with extended range testing only at WSMR and at KMR. The TMD tests at KMR were intended primarily to involve launches of target missiles from Wake Island and launches of interceptors at USAKA. Launches of targets from platforms at sea were examined in the EIS (see Fig. 2.2-30) but the Record of Decision states that, "Technical difficulties with launches and costs removed sea-based target missile launches from consideration." This background information is important and relevant because it demonstrates that KMR is an alternative for TMD tests over ocean areas and, as of 1995, apparently had capabilities superior to those at PMRF. The final EIS needs to consider this alternative and compare the impacts at KMR with those at PMRF.

The other background information that should be included in section 1.1.1 in the final EIS is that similar TMD testing scenarios near Eglin AFB are being examined in the TMDETR SEIS, the draft of which was released on 6 Feb. 1998. This is important because this is another alternative to PMRF for some or all of the TMD tests.

26) Navy Theater-Wide testing

Page 2-46 of the DEIS contains the statement that, "The Theater-Wide program is not sufficiently developed at this point to evaluate in this document." This statement is misleading for several reasons. Some tests of the LEAP "kill vehicle" that is being developed for Theater-Wide interceptors have already been done. (It has missed in all four attempts to hit a target.) The 27 Feb. 1998 report "Reducing Risk in Ballistic Missile Defense Flight Test Programs" notes serious problems with the Theater-Wide program but indicates that flight tests could begin in the 3rd quarter of FY-99. In a statement to the Senate Defense Appropriations Subcommittee on 22 April 1998, BMDO Director Lt. Gen. Lester Lyles states, "The Navy Theater Wide program is currently in the Program Definition & Risk Reduction phase of development and is preparing for an initial Defense Acquisition Board (DAB) Review." The FY-99 budget request is given as $190 million in this statement. How can PMRF be mandated to conduct flight tests for this program (which is referred to as Navy upper tier in Senate Report 103-321 on the 1995 Defense Appropriations Bill) if the testing requirements are so poorly-defined?

The Theater-Wide program would require longer-range interceptors in order to defend larger areas than the Navy Area program. These interceptors would have to counter longer-range missiles, whose warheads have higher reentry speeds. Therefore, realistic tests would seem to require longer-range targets and longer-range interceptors than tests for the Navy Area program. Presumably this is why the Dept. of the Interior was consulted in 1997 about possible launch sites at Midway Atoll and why Kure Atoll was included as a possible launch site in the 23 May 1997 EIS Preparation Notice. The final EIS needs to indicate all sites considered but eliminated from Table 2.4-1 because they were more than 1200 kilometers from PMRF. The relevant sites appear to be contained in the table titled "Potential New Facilities/Capabilities by Location" whose source is given as "PMRF Enhanced Capability EIS Siting Group (Jan. 8, 1997)." I included this table with my 24 June letter (page 7-189). The final EIS should also discuss in section 2.3 what "additional analysis under NEPA may be needed" if these sites were used to launch targets for Navy Theater-Wide testing.

27) TMD testing schedule

The final EIS should give the current schedule for TMD tests involving PMRF. Only a vague statement that "up to 12 additional boosters could be used at PMRF per year" is given on page 4-43. A Nov. 1997 General Accounting Office report (GAO/NSIAD-98-34) states, "Between November 2000 and March 2001, the Navy plans to conduct developmental and operational tests at the Pacific Missile Range Facility that will involve intercept attempts with a total of 32 missiles, an average of about 8 test firings a month."

28) Economic impact on Kauai

On page 4-71, the DEIS notes that the proposed action "will have little impact on the economy and population of Kauai." An increase in direct expenditures by personnel coming to PMRF for launch activities of about $2 million per year is estimated assuming an additional 30 visitors every day with average daily budget for lodging and subsistence of $189. The final EIS should justify the assumption of 30 additional visitors per day and compare the assumed daily budget with the federal per diem.

29) State of Hawaii as a cooperating agency

The cover sheet lists the State of Hawaii as a cooperating agency, and both the Executive Summary and the Introduction in section 1.1 assert that the document is a joint State of Hawaii and U.S. Navy EIS. However, section 1.3 on page 1-4 notes that the State of Hawaii was requested to be a cooperating agency but did not respond. The final EIS should state when and to whom the request was sent and indicate what response, if any, has been received since the DEIS was released. The lack of response from the State of Hawaii suggests that its level of cooperation in preparation of the EIS was minimal.

30) Existing water and soil contamination at KTF

The DEIS does not mention the contaminated water volume of 5,700 cubic meters and the contaminated soil volume of 1,400 cubic meters at the Kauai Test Facility nor does it refer to the 1997 Dept. of Energy report "Linking Legacies" (DOE/EM-0319) which gives these quantities. I cited this report in my 16 June letter (page 7-110).

31) Typos

The last two sentences on page 2-19 are only slightly different from the previous two sentences. The 4th line in the last paragraph on page 3-38 ends with "the spiritual the spiritual."

The comments expressed above are based on my review of the DEIS and related EIS documents and on my experience with documents relevant to previous STARS and Vandal launches at PMRF. These comments are my views and are not official positions of the Dept. of Physics & Astronomy or of the Univ. of Hawaii. In my 19 June letter, I noted what I consider to be examples of egregious disregard for serious public involvement in review of documents related to missile launch programs at PMRF in the past 8 years. Because of these experiences, I can understand why some people are cynical and distrustful of the EIS process. In spite of this, I think that the EIS process is essential if government agencies and the public are to make informed decisions about the proposed TMD tests. I also believe that substantial improvement of past performance -- including responses to my comments during the scoping process -- is required. I hope you will give my comments serious consideration.



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29 Aug. 1995

Deputy Commander, USASSDC
Attention: CSSD-EN-V (Linda Ninh)
P.O. Box 1500
Huntsville, Alabama 35807-3801

Dear Ms. Ninh:

I received the U.S. Army Environmental Hygiene Agency Ambient Air Quality Assessment No. 43-21-N3DD-94 on 22 August 1995. This report contains information about air quality monitoring of the 22 July 1994 Strategic Target System (STARS) launch from the Kauai Test Facility at the Pacific Missile Range Facility on the island of Kauai. Based upon review of this report, I conclude that:

1) There are no reliable data about the maximum HCl concentration at the AEB site 140 feet from the launch pad. The report indicates that the Sensor Stik monitors saturated at 136-141 ppm implying that the maximum HCl concentration exceeded 140 ppm by an unknown amount.

2) No data were obtained that can be compared with the REEDM computer model predictions at locations downwind of the launch pad. The GHA-W site, which had monitors on the boat WRB 833, was at 289 degrees whereas the downwind direction in the REEDM calculations was 329 degrees. The more serious problem is that the Sensor Stik monitors on the boat did not begin to record data until after the time that the exhaust cloud was predicted to have passed over the GHA-W site.

Presumably the reason for monitoring this STARS launch was that there were serious problems with the monitoring data from the first launch on 26 Feb. 1993. In particular, the Interscan HCl monitor at the AEB site saturated and there were no monitors at sites downwind of the launch pad for the first launch. Regrettably, neither of these problems was corrected in the July 1994 launch.

Detailed comments follow.

Hydrogen Chloride (HCl) readings at the AEB site

1) The discussion of the Sensor Stik monitor HCl readings on page 16 indicates that the maximum recorded concentrations between 136 and 141 ppm exceeded the operational limit of 100 ppm. The subsequent determination by USABRDL that these monitors saturate around 140 ppm implies that the maximum HCl concentration for the STARS launch exceeded 140 ppm by an unknown amount.

2) Data from the two Interscan HCl monitors plateaued at 100 and 110 ppm even though the nominal operational range for these monitors is said to be 0 to 200 ppm. The plateau behavior and the larger HCl concentration indicated by the Sensor Stik monitors imply that

data from these Interscan monitors are unreliable for HCl concentrations above 100 ppm. This could have been verified by exposing these monitors to known HCl concentrations above 100 ppm, as was done by USABRDL for the Sensor Stik monitors.

In the first STARS launch, the Interscan HCl data had a plateau at a concentration of 43.5 ppm. I noted in my comments on this report (see comment 15 in my comments dated 28 Aug. 1993 on the Draft Restrictive Easement EIS for STARS and Vandal launches) that this monitor had saturated. The reply (response 15 in the 8 Oct. 1993 letter to me signed by Lt. Col. Thomas E. Dresen) asserted that "the plateau is a valid peak value that the monitor reached and maintained for approximately 100 seconds." In reply (see my 26 Oct. 1993 letter to the Hawaii Dept. of Land and Natural Resources and my 5 May 1994 letter to Jeffrey S. Kirkpatrick of the USAEHA), I pointed out that this assertion did not explain the inconsistency between the Interscan data and data from the USABRDL monitors, which did not have a plateau but rather had peak HCl concentrations of 77 to 80 ppm. Apparently the people in charge of the monitoring did not learn from these problems during the first launch and, as a result, the HCl monitors saturated again during the July 1994 launch.

Carbon Monoxide (CO) readings at the AEB site

The CO data from Binos monitor No. 4 on page 23 have the 20 ppm maximum reading before the launch!

Wind Speed measurements

The wind speeds measured at the GHA-S site are given on pages 32 and 33 and range between 0.5 and 2.0 mph around launch time. The corresponding range of speeds in meters per second is 0.22 to 0.89. However, the wind speeds used in the REEDM calculations in Appendix S are much larger -- 3.1 meters/sec at ground level increasing to 4.1 meters/sec at an altitude of 300 meters. This inconsistency should have been addressed in the report.

Appendix Q

The time series plots begin at 05:28:41, over 19 minutes after the launch. The REEDM calculations indicate that the exhaust cloud would have passed over a site 3000 m downwind between 8.5 and 12.5 minutes after the launch so the cloud was predicted to pass over the GHA-W site (which was 2895.6 meters from the launch pad according to data on page S-8) before the monitors began to record data.

Appendix S

1) The launch time is given in the table headers as 0550, not as 0509 as indicated by the time series plots of hydrogen chloride and carbon dioxide concentrations.

2) The wind speeds indicated in the table on page S-3 range from 3.1 meters/sec at ground level to 4.1 meters/sec at 300 meters altitude to 5.7 meters/sec at 1000 m altitude. All of these speeds are much larger than the measurements made at the GHA-S site.

3) On page S-6, the HCl exhaust cloud arrival and departure times at a site 5000 meters downwind are given as 15.928 and 18.063 minutes respectively. This implies that the cloud was over 2000 meters beyond the GHA-W site when the monitors began to record data.

4) On page S-7, the center of the aluminum oxide cloud is predicted to be at an azimuth of 329.6 degrees relative to the launch pad when it is at a distance of 3000 meters from the pad. This direction is 40 degrees different from that of the GHA-W site, whose position is given as 2895.6 meters at an azimuth of 289.0 degrees from the pad on page S-8.



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copies to: Lisa Young, Hawaii Dept. of Health
Rep. Patsy Mink

3 March 1996

Deputy Commander, USASSDC
Attention: CSSD-EN-V (Linda Ninh)
P.O. Box 1500
Huntsville, Alabama 35807-3801

Dear Ms. Ninh:

I am writing to you because I have not received a response to my 29 August 1995 letter to you. This letter contained my comments on the U.S. Army Environmental Hygiene Agency Ambient Air Quality Assessment for the 22 July 1994 Strategic Target System (STARS) launch on Kauai. My comments noted some serious problems with the air quality monitoring that I believe need to be addressed.

Although I have received no direct response to my 29 August letter, I have seen a document which seems to indicate that at least some of the issues have been addressed. This document was sent on 25 October 1995 by Brad Hutchens to PMRF and addressed to you and Bob Inouye. A handwritten note on the document states,

"Bob, if you need to see the response, please call Brad Hutchens at 410-671-8163.
Thanks, Linda"

This document, along with a copy of my 29 August letter and a memorandum dated 25 Oct. from Robert Inouye to Hawaii State Representative Ezra Kanoho, were forwarded to the Univ. of Hawaii Physics Dept. by Rep. Kanoho on 11 December 1995.

In closing, I would like to make clear that my views do not represent official positions of the Univ. of Hawaii or the UH Physics Dept. I continue to be involved in this issue because I believe it is important and consider my involvement part of the community service that is expected of UH faculty. I believe that you have a responsibility to address the comments I've made; I trust I will receive a detailed and direct reply from you soon.

Michael Jones

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copies to: Lisa Young, Hawaii Dept. of Health
Rep. Patsy Mink
Prof. James Gaines, Chair, UH Dept. of Physics & Astronomy

20 Oct. 1996

Col. Jimmie L. Slade
Environmental Division
U.S. Army Space and Strategic Defense Command (USASSDC)
P.O. Box 15280
Arlington, Virginia 22215-0280

Dear Col. Slade:

This letter is in reply to your letter dated 20 Sept. 1996, which contained responses to comments in my 29 Aug. 1995 letter. The responses to my comments do not alter my two main conclusions about the monitoring of STARS launches at the Kauai Test Facility.

1) There are no reliable data about the maximum HCl concentration at the AEB site 140 feet from the launch pad.

2) No data were obtained that can be compared with the REEDM computer model predictions at locations downwind of the launch pad.

Because of these inadequacies in the monitoring, I think there is a serious question whether USASSDC has fulfilled the commitment in the Record of Decision for the STARS EIS to collect air samples "to validate the accuracy of the models and to evaluate compliance with federal and state standards."

Detailed comments on the responses in your letter follow.

Hydrogen Chloride (HCl) readings at the AEB site

Response 1 quotes the text of the monitoring report, which states that the maximum HCl concentrations "may have been higher" than the maximum values between 136 and 141 ppm recorded by the Sensor Stik monitors. This conclusion in the monitoring report was based upon post-monitoring tests by USABRDL which showed that these Sensor Stik monitors reliably recorded HCl concentrations up to 140 ppm but did not record higher values (i.e. saturated) when the HCl concentration exceeded 140 ppm.

Response 2 argues that the Interscan HCl monitors, which plateaued at values of 100 and 110 ppm, did not experience saturation problems and asserts that these monitors "responded to concentrations over 100 ppm during post-calibration monitor." No calibration data are provided to support this assertion, which seems to contradict the following statements on page 27 of the monitoring report. "However, the time-series plots showed a plateau similar to the Sensor Stik time-series plots, indicating the monitors may have been saturated. The monitor's less than fullscale response may be explained by a relative low calibration span. A HCl span gas concentration of approximately 50 ppm was used to calibrate the Interscan monitors." The monitoring report does not mention any calibration tests with HCl concentrations above 100 ppm.

These two responses do not explain the inconsistency in the HCl data from the Sensor Stik and Interscan monitors and contain assertions about the Interscan monitors which seem to conflict with statements in the monitoring report. I see no basis to alter my conclusion that there is no reliable measure of the maximum HCl concentration at the AEB site.

Wind Speed measurements

The difference in the wind speeds measured at the GHA-S site (less than 1 meter/sec) and those from the rawinsonde (3.1 meters/sec at ground level) used as input for the REEDM calculations indicate either that wind speeds vary substantially at different locations or that some of the wind speed measurements are unreliable. In either case, there are serious questions whether the input to the REEDM calculations adequately represented conditions near the launch pad at launch time.

Appendix Q

The response does not directly address my conclusion, based on the monitoring report, that the monitors on the WRB began to record data after the exhaust cloud had passed over it. If that is the case, there are no data from the WRB that are relevant for testing the REEDM calculations. Presumably the purpose of having monitors on the WRB was to provide an experimental test of the REEDM predictions. The response does note that the maximum concentrations predicted by REEDM were below the monitor's detection limits and thus hypothesizes that the WRB "probably would not have detected any HCl concentrations" even if it had been directly downwind. Regrettably, there are no relevant data to test this hypothesis.

The response also notes that "the WRB was unable to maneuver to the point of maximum downwind impact before the plume could disperse" and concludes from this that the ground hazard area (GHA) "is very effective in protecting the public from possible exposure to ground-level impacts." This wishful thinking is not reassuring -- especially because REEDM calculations done for the STARS EIS indicated that the Hawaii HCl guideline would be exceeded at the GHA boundary in certain conditions. What is needed is a reliable measurement of the maximum HCl concentration at the boundary of the GHA downwind of the launch pad. The relevant data have not been obtained by the monitoring of either the first or the third STARS launches.

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Ser 00/ 0959
23 OCT 1998

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University of Hawaii
2505 Correa Road
Honolulu, HI 96822

Dear Mr. Jones:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

1. The National Environmental Policy Act (NEPA) allows great flexibility in analyses to support various decisions. The purpose of this EIS is to decide whether and how to enhance PMRF to support testing and training like TBMD and other Department of Defense Theater Missile Defense programs. Comparisons to other military ranges are beyond the scope of this EIS.

2. The identified Ground Hazard Areas (GHAs) represent limiting constraints. Any class of target or interceptor missile may be launched from the potential launch sites as long as the required safety analysis confirms that all debris from a missile mishap would be contained within the identified GHA. As stated on p. es-2 of the Draft EIS, all testing would comply with U.S policy concerning compliance with treaties and international agreements.

3. The launch operations discussion of Section 4.1.1.7.1.1 contains a detailed discussion of the numerous factors that determine the shape and dimensions of the GHA. Adjustments in system performance and adjustments in allowable flight termination response time have confirmed that Hera's debris can safely be contained within a 10,000 foot GHA, rather than the 13,000 foot GHA identified in the 1994 Wake Island EA.

   In your review of the other documents you have requested on this subject, you may note that the GHA varies in size by location. For example, the GHA of Hera at Eglin is 6,000 feet. This is a result of Range Safety Officers determining GHAs at specific locations based on 2 factors: system performance and area available. This does not mean there is increased risk to the public for missile testing, but does indicate that missiles will be terminated earlier in flight if the GHA is smaller.

4. Reliability of missiles is calculated based on individual component reliability and all failures do not result in flight termination. Also, launches of missiles are discrete events and the reliability of individual missiles cannot be used to predict overall program reliability. As such, our approach has been to establish safety areas surrounding these launches and to include the possibility of early flight termination in our analysis of environmental effects. Historically, this approach has been effective in ensuring safety and minimization of environmental effects. In fact, the Hera termination noted in your letter resulted in all debris being contained in the pre-specified safety area.

5. The possibility of a brush fire resulting from a mishap is acknowledged in the Draft EIS, along with the identification of mitigation measures to cover this possibility, i.e., clearing dry vegetation from around the launch pad, spraying the vegetation with water just before launch, and by the presence of emergency fire crews on both PMRF/Main Base and Niihau. Prior to a launch, a Missile Accident Emergency Team (MAET), which includes fire suppression capability, is positioned at the edge of the GHA. The MAET also includes a helicopter with a water bucket airborne or on standby, when necessary.

6. While specific risk analyses for each vehicle proposed have not been completed for inclusion in the EIS, Range Safety Approval and Range Safety Operation Plans are and will be required for all weapons systems using the PMRF Range as a matter of course independent of the EIS process. Routine practice by PMRF includes notices to mariners and surveillance of the hazard area to determine it is clear. With these practices and adherence of mariners to these warnings, minimal risk exists to public safety from these activities.

   The December 1988 incident is regrettable. The incident did occur within W-188, a warning area, utilized for military training operations. However, the operation was not under the control of PMRF and it was not launched from KTF or any facilities at PMRF and therefore is not appropriately included in PMRF risk calculations.

7. Because of the broad open ocean area available north and northwest of Kauai, specific trajectories and impact zones do not have to be provided, only representative intercept scenarios. These would take place anywhere within the 1,200 km (648 nm) portion of the Temporary Operations Area, and would adhere to the regional safety procedures required by PMRF in consultation with the FAA. In addition, intercept debris impact zones, target and defensive missile impact zones (in the event of a failed intercept), and booster impact zones would all be confined to open ocean areas that have been determined clear of ships, vessels, watercraft, etc.

8. NEPA allows for evaluation of reasonable and foreseeable alternatives. We will not implement any actions that are not in accordance with current U.S. policy on treaty compliance.

9. See response to your question #8.

10. See response to your question #8.

11. The Strategic Target System Environmental Monitoring Program report for the 26 February 1993 launch of the Strategic Target System from PMRF analyzed pre- and post-launch air quality and confirmed there were no exceedances of guidance levels at any public exposure location. Sections 3.1.1.1 and 4.1.1.1 address potential effects to air quality. We believe the monitoring was adequate to determine any realistic threat to human health and safety outside the LHA.

12. As described in Response 5 of the 1993 Restrictive Easement EIS, we believe the Short-term Public Emergency Guidance Level (SPEGL) is the most appropriate health-based guidance level for this analysis.

13. The reference for Naval Facilities Engineering Command, 1996 has been changed in Section 8.0 and is now listed as "U.S. Department of the Navy, Pacific Division, Naval Facilities Engineering Command, Pearl Harbor, 1996..." To date this has been the only soil sampling conducted. The Soil Contamination Report in the baseline study indicates that all of the samples were well below the U. S. Environmental Protection Agency (EPA) remediation and State of Hawaii cleanup goals for commercial or industrial use property. The public is restricted from this area and therefore, not exposed to the soil. There has been no indication that any contaminants have been found off-base that significantly threaten public health.

14. Any program using the Strategic Target System booster, including their payloads, will not exceed the previously analyzed launch rate of four per year. As stated on p. 2-46 of the Draft EIS, the Theater-Wide system is not sufficiently developed at this point to be evaluated in this document. All testing will be consistent with current U.S. policy on treaty compliance.

15. The Restrictive Easement EIS determined there would be no significant impacts from continued Vandal launches. The current supply of Vandals will run out sometime before 2030. No replacement has yet been identified. Table A-7 in Appendix A identifies possible candidates.

16. No tests are proposed involving rockets powered by nuclear reactors or involving a nuclear propulsion test facility. The number of launches analyzed at PMRF would include any classified launches. As future programs come to PMRF, their proposed action and anticipated impacts will be compared to the activities and

impacts analyzed in this EIS. If required, additional analysis under NEPA would be performed.

17. The Restrictive Easement EIS described what was planned at that time. However, the analysis considered the total number of possible closures (30 per year). The easement also used the same assumptions, but only restricted the maximum number of closures of the easement per year. Table 3.1.2-1 has been revised to more accurately reflect the times the easement was activated.

18. PMRFs mission requires the capability to establish adequate safety zones. To meet this requirement, as with other requirements, periodic updates and extensions of land use agreements are necessary.

19. See response to your Question #5.

20. Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

    The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

21. See response to your Question # 20

22. See response to your Question # 20

23. Depleted uranium would not be used to simulate nuclear weapons.

24. Per your request, these documents were sent to the UH Library on May 12, 1998. They are available for review by you or any other member of the public.

25. See response to your Question #1.

26. This document covers enhanced capabilities for PMRF to support Area Defense and the Aegis Leap Intercept. The Theater-Wide program is not sufficiently developed to be included in this analysis.

27. The proposed action is to enhance the capabilities of PMRF. The EIS has been written to allow flexibility for PMRF, without the constraint of a particular schedule.

28. The use of 30 visitors per day is based on historical data as described in Section 3.0 of the EIS. The use of $189.00 per day is based on per diem allowances ($180.00 from May 1-November 30, and $206.00 from December 1-April 30) in effect as of January 1, 1998.

29. Although the State of Hawaii has not responded formally with a cooperating agency letter, the State has indicated that they consider the EIS to be a joint EIS sufficient to fulfill their requirements on state issues. Extensive involvement of state agencies has occurred throughout the EIS process. This consultation included periodic meetings with Department of Transportation, Department of Land and Natural Resources, Department of Health, Department of Business, Economic Development and Tourism, and the Office of Environmental Quality Control as well as frequent meetings with the Governor's Office and Department Heads. Thank you for bringing to my attention the fact that this involvement was not described in the draft document.

30. Based on our recent correspondence from the Department of Energy (see attached), the "Linking Legacies" report does not indicate the type of contamination found in the soil and water samples. The KTF site investigation results were submitted to EPA. Based on the submitted information, EPA was able to make a decision that no further action was needed under CERCLA.

31. The typographical errors you cited have been corrected.

Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your support and trust.

Sincerely,



J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0220

Department of Energy
Washington, DC 20585

June 4, 1998

Mr. Ted Wolff
Sandia National Laboratory
Albuquerque, NM 87185-1313

Subject: ***Linking Legacies*** **and the Kauai Test Facility**

Dear Mr. Wolff:

Thank you for your recent inquiry concerning Kauai Test Facility (KTF) data listed on pages 79, 81, and 209 of the Department of Energy report *Linking Legacies, Connecting the Cold War Nuclear Weapons Production Processes to Their Environmental Consequences (report number DOE/EM-0319)*. Before I provide the background necessary to address your concern, let me first unequivocally state that the Department of Energy has never introduced, nor has plans in the future to introduce nuclear weapons, materials, or waste to the Kauai Test Facility.

The *Linking Legacies* report was compiled to address Congressional language in the 1995 National Defense Authorization Act directing the Department of Energy (DOE) to describe the waste streams generated by each phase of the nuclear weapons production process. The Office of Environmental Management examined its materials in inventory, surplus facilities, contaminated environmental media, and wastes and attributed them to nuclear weapons production processes and to non-weapons processes.

Non-weapons processes included Department of Energy and predecessor agency missions that were unrelated to the nuclear weapons program, such as the civilian nuclear power program and the naval nuclear propulsion program. Weapons production processes were further divided into eight steps:

- Uranium Mining, Milling, and Refining
- Isotope Separation (Enrichment)
- Fuel and Target Fabrication
- Reactor Operations
- Chemical Separations
- Weapons Component Fabrication
- Weapons Operations
- Research, Development, and Testing

The KTF's existence is mandated by Safeguard C of the 1963 "Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water" (Limited Nuclear Test Ban Treaty). Congress imposed the safeguard to ensure that certain Pacific support facilities, including the Kauai test facility, be maintained to support the resumption of nuclear testing if world events make it necessary. Although no nuclear weapons were ever launched from KTF and none are proposed, KTF rockets with high altitude instrumentation probes which gather data during nuclear events would once again be launched if nuclear testing were to resume in other Pacific locations. As such, contaminated environmental media at KTF fall within the weapons production category because the mission supported Research, Development, and Testing of nuclear weapons. Test sites in the Research, Development, and Testing step are broken out into nuclear and non-nuclear sub-categories in Appendix B (page 206) and Appendix C (page 209) to differentiate KTF and other test sites that did not contain radioactive materials from sites where nuclear events actually occurred.

The report (p. 79-81) identifies 1,400 cubic meters of contaminated solid media and 5,700 cubic meters of contaminated water present at the facility. In the tables where these values appear in *Linking Legacies*, the report does not indicate the type of contamination (the volumes listed include the total hazardous chemical and/or radioactive and or mixed constituents as well as the affected media). These inventories were provided by the Office of Environmental Restoration's Core Database (1996 version), which indicates that all KTF volumes stipulated contain only chemically hazardous constituents, and no radioactivity.

Although not addressed in *Linking Legacies*, the Department of Energy submitted the results of the Kauai Test Facility site investigation to Region 9 of the Environmental Protection Agency (EPA) on May 3, 1995. Two of the three release sites identified, a drum storage rack and a photo shop, did not exhibit contamination above background levels. The third release site, a rocket pad area, exhibited concentrations of arsenic (96 parts per million) and lead (270 parts per million) that exceeded background levels but were below EPA action levels. No evidence of radioactive contamination was evidenced anywhere at this site. A No Further Action decision was issued by the EPA to KTF on October 30, 1996.

I hope this information helps clarify the information about the Kauai Test Facility in *Linking Legacies*. If you require further information related to the *Linking Legacies* document, please contact Steven Livingstone of my staff at (202) 586-9874.

Sincerely,

Dan Berkovitz
Deputy Assistant Secretary
Office of Planning, Policy and Budget

Printed with soy ink on recycled paper

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

September 30, 1996

OCT 0 3 1996

Mr. John Gould
U.S. Department of Energy
Albuquerque Operations Office
P.O. Box 5400
Albuquerque, New Mexico 87115

RE: Kauai Test Facility EPA ID No.: HID984469908

Dear Mr. Gould:

Enclosed are the results of the Site Inspection (SI) documentation review by the U.S. Environmental Protection Agency for the U.S. Department of Energy regarding the Kauai Test Facility. The purpose of the review was twofold: 1) to determine if the facility meets CERCLA requirements as defined in Section 120; and 2) to determine if site conditions at the facility pose a significant threat to human health and the environment such that it warrants placement on the National Priorities List (NPL).

You have submitted enough information for the EPA to certify that the SI requirements have been met for the facility. This decision will be entered into the CERCLIS database. Based on the submitted information, EPA was able to make a decision that no further action is warranted at this time under CERCLA. You should be aware that if additional information is provided to the EPA that impacts the status of the no further action decision, this site may be reevaluated. A copy of our evaluation is enclosed.

EPA is referring this site to the State of Hawaii Department of Health's Hazard Evaluation and Emergency Response Office for any further oversight. EPA is recommending that periodic reevaluation for environmental contamination from or at this site is warranted, particularly because of the continued use of the Launcher Field which contains 16 launcher pads. The exhaust and explosions associated with rocket launches are the primary causes of metals and other hazardous chemical releases at the Launcher Field. Of some concern is potential contamination after heavy rainstorms in the water runoff from the Launcher Field into the ditches that empty into the ocean approximately 2 miles south of the site. The downstream pathway includes habitat for several federally designated endangered or threatened species. Please see the enclosed report for further details.

Should you have any questions pertaining to this matter, please contact me at (415) 744-2328 in the EPA Region IX Superfund Office of State Planning and Assessment Section.

Sincerely,

Michael Ardito

Michael Ardito
Hawaii State Project Officer for Superfund

Enclosure

cc: Steve Armann, Hawaii Department of Health, HEER Office

Printed on Recycled Paper

P-W-0221

Marion Kelly
4117 Black Point Road
Honolulu, Hawai`i 96816

DATE: April 25, 1998
TO: Vida Mossman
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Kaua`i, Hawai`i 96752-0128
FROM: Marion Kelly
Associate Professor
SUBJECT: Testimony on Draft Environmental Impact Statement
Pacific Missile Range Facility

6 pp.

I am again appalled, but not surprised, at the arrogance of the U.S. military in presenting a Draft Environmental Impact Statement with so little concern for the environment, for endangered animals and for its complete lack of concern for the culture and the rights of the indigenous people of Ka Pae `Aina (The Hawaiian Archipelago). Add to that the U. S. military twisting of facts regarding the rightful claims that Kānaka Maoli have on the so-called "ceded" lands. These are lands stolen from the Kānaka Maoli with the assistance of guns and cannon in the hands of the U.S. Marines. They aimed their canon at the Royal Palace, the seat of the government of the Kingdom of Hawai`i in 1893. All this and more is admitted in Public Law 103-150 passed by the U. S. Congress and signed by the President of the United States in 1993. Yes, it took a hundred years for the U. S. government to apologize. I am sure it will take a lot longer to right those wrongs, especially with so much denial in evidence among the military leadership (See PMRFEC, Appendix E, Vol. 2. e1 to 4).

The first portion of my testimony is addressed to Appendix E, Vol. 2, "Land Title" of the Draft PMRF Enhanced Capability DEIS (E-1 to E-4).

As a student of Land Tenure in Hawai`i for the past 48 years and teacher of this history for the past 30 years, I would like to share some of what I have learned, and hopefully to correct your misreading, deliberately, or otherwise, of this history.

A Very Brief History of "Ceded" Lands and Native Hawaiian Rights to them:

The Māhele of 1848 was triggered by fear. Kamehameha III was told by his American advisors that if a foreign power took over the Islands it would confiscate all lands that were not privately owned. King Kamehameha III was told that only by privatizing the land could he protect the rights of his people to sustain themselves on the lands of these islands. The foreign advisors, namely Rev. William Richards, Dr. Gerrit P. Judd, and their lawyer, William Little Lee, came up with a plan to privatize the lands of Ka Pae `Aina. Their plan, in effect, gave the land away to private owners in order to "save" it. [One is reminded that My Lai, a village in Vietnam, was burned in order to "save" it.]

M. Kelly

On January 27, 1848 the first māhele (division) was agreed upon and recorded. Subsequently, King Kamehameha III met with 250 high chiefs and divided the land of Ka Pae `Aina among themselves, thus privatizing the land in the Islands for the first time. These lands and the names of the chiefs are recorded in The Māhele Book. On March 8, 1848, the day after the last division was recorded, Kamehameha III divided his lands. He set aside a large portion of them, approximately 1,495,000 acres, as Government Lands. He said they were to be lands for his chiefs and his people. The remainder of his lands were the lands that he kept for himself as his private lands, amounting to approximately 984,000 acres. Queen Kalama owned dower rights in them. According to the constitution of the Kingdom, the king and the government, in regard to property, were two separate entities (Spaulding 1923:9). Kamehameha III wrote in Puke Māhele regarding his lands:

> ...I...have given this day of my own free will and have made over and set apart forever to the chiefs and people the larger part of my royal land, for the use and benefit of the Hawaiian Government, therefore by this instrument I hereby retain (or reserve) for myself and for my heirs and successors forever, my lands inscribed at pages...these lands are set apart for me and for my heirs and successors forever, as my own property exclusively. (2 Haw. R. 723 and 45 Ct. Cls. 429; cited by Spaulding 1923:9)

However, those who controlled the courts of the Kingdom did not want to let go of these lands so easily.

As for the chiefs, their private lands totaled approximately 1,619,000 acres (Lind 1938:46).

Kamehameha III died in 1854 and questions were raised about his heirs. By 1865, during the reign of the last reigning Kamehameha (Lot Kamehameha, aka Kamehameha V), the Americans in power in the government insist on taking over the private lands of Kamehameha III, the King's Lands. They created the "Crown Lands" in 1865. Because the King's private lands had always been and still were managed separately from the Government Lands, they continued to be controlled separately. A "Commissioner of Crown Lands" was appointed to oversee the leasing or selling of these lands. These lands were kept separate until a year after the illegal 1893 take over of the Hawaiian Government by the American missionary descendants and traitors: Lorrin A. Thurston, Sanford B. Dole, William Owen Smith, William R. Castle, S. M. Damon, etc., and their friends, acting in concert with the military assistance of the U.S. Marines.

In 1894, after failing to convince the U.S. Congress that it should annex the Hawaiian Islands immediately, the traitors created the so-called Republic of Hawaii, and illegally consolidated the former King's privately owned lands with the Hawaiian Government Lands that they had stolen from the Kanaka Maoli people and called them "Public Lands."

M. Kelly

All these maneuverings, subsequent to the illegal overthrow by the U.S. Marines and their American cronies, continue to be illegal. These stolen lands cannot be legally "owned" by anyone. There is a "glitch" in the title. This is evidenced in the treatment of these lands under the Organic Act of 1900. This is also evident in the Statehood Act of 1959, and in Public Law 103-150. There are also other "glitches" in the title of all so-called private lands in Hawai`i. This has already been acknowledged in the Public Access Shoreline Hawai`i (PASH), State Supreme Court decision in 1995. According to this decision, Native Hawaiians today have access and gathering rights on privately held land.

To claim today that the U.S. Government has legal title to these "ceded" lands suggests that the gunboat diplomacy of U. S. imperialism and its exploitation of a defenseless independent Hawaiian Nation is still alive (Appendix E, E-1).

It has been more than a hundred and seventy years since the first recorded "treaty" of friendship between the United States and the Kingdom of Hawai`i. It was made when the American gunboat, *U.S. Peacock*, came to Hawai`i in October 1826. With guns to back him up, Captain Thomas ap Catesby Jones demand that the Kanaka Maoli pay the sandalwood claimed by American traders. It was these same traders who had cheated the Kanaka Maoli chiefs by offering ships with rotten bottoms, in exchange for thousands of tons of sandalwood. The Kanaka Maoli rightfully refused to pay the traders when the rotten ships sank at dock side. Nevertheless, the chiefs tried to pay the debt by taxing their people. The men were forced to cut sandalwood in the mountains and strip off the bark. With the logs tied to their backs long lines of Kanaka Maoli walked down the mountains to the seashore. They left the sandalwood there to be picked up by the traders.

Apparently, nothing has changed in these past 172 years. The U. S. military today (Appendix E, Vol. 2) refuses to recognize the legitimate rights of Kānaka Maoli. The indigenous people of these Islands are the heirs of these lands that were stolen by traitors. The traitors were supported by the United States military. From 1826 to 1893, the U. S. had been masquerading as a "friendly nation." These traitors then "ceded" land that did not belong to them to the U.S. These lands belonging rightfully to the Kānaka Maoli of Ka Pae `Aina.

However, the old saying, "let the buyer beware" still holds. The U.S. government knows they do not "own" those lands. That is why they placed them in "trust" with the people of Hawai`i being the beneficiaries. Even when the U. S. "returned" most of the "trust" lands to the State of Hawai`i in 1959, they knew that these lands were not ordinary freehold lands. These lands were again placed in a "trust." The Kānaka Maoli by this time appeared in the Statehood Act as only one of five uses for these "trust" lands. Thus, the U. S. unilaterally diminished the rights of the Kānaka Maoli, at the same time admitting that these were "trust" lands. Colonialism is alive and well, even under Statehood.

M Kelly

Unfortunately, this history lesson is surely lost on the U. S. Navy at this point in time; however, this fact does not make the history any less correct or any less important. Perhaps justice will find a way, someday. But apparently not today, if I read the signs correctly.

At this point I will leave the "ceded" lands issue and move on to Wildlife Reserves, endangered animals and birds, preservation of coral reefs, and the seas around them.

The Endangered Populations of the Northwest Hawaiian Chain of Islands:

I would like to address briefly my concern for the remarkable birds that use these Islands, either year-around, or for breeding purposes when they seek refuge from the cold of far away lands such as Alaska and Canada. The devastation of the bird population as a result of the military activities (particularly the airplanes) on Midway and French Frigate Shoals (Tern Island) is well known. This should make us more environmentally sensitive, not less. How many birds will die or be maimed each time a missile is fired, each time a plane takes off, or lands? Some of these birds are already endangered. How can you propose to invade Wildlife Refuges? Or, is our senator going to get the Navy exempt from all environmental laws?

Along these same lines, we need to stop killing, displacing, removing from their rightful space the Hawaiian Monk Seals, and the Hawaiian Green Sea Turtles, already on their way to becoming extinct. Instead of proposing these sensitive areas as missile sites, we should stay away from these islands and let these animals recover, if they possible can. It is unacceptable to write that "...the operational activities of the Proposed Action are not expected to affect viability or jeopardize the continued survival of either of these two sensitive species" (Executive Summary es-7, Vol. 1). For some animals it is already too late. The U.S. military occupation of Midway has already exterminated the Hawaiian flightless rail.

As a youngster I was privileged to have been a visitor to Midway in the late 1920s. I remember well the experience of watching these tiny flightless birds on Midway. Also, with my parents, I visited the atolls of Laysan, Lisiansky, and French Frigate Shoals (Tern Island). As a student of the Pacific Islands, I understand very well how fragile are these environments, and how easily their natural resources can be obliterated by mindless men.

It is frightening to me how easily the EIS finds "No Impact" or down-plays what must surely impact the resources of these small islands by stating that they "may experience impacts resulting from the Proposed Action." (es-7, Vol. 1), or "the species is not expected to be jeopardized" (es-8, Vol. 1). I also feel compelled to point out that the language used in the EIS in many cases eludes rational thought and is often obtuse and obfuscating.

What is the Alternative to the Proposed Action?

To summarize, it is certainly clear that to continue with preparation for war in the name of "defense" will surely lead us into another war. I would have

M. Kelly

hoped that our experiences in the Korean War and the Vietnam War would have taught us some lessons. As we approach the 21st century, we should be working toward building peace between nations. If we were to put as much energy into building bridges between nations, helping to create peaceful cooperation among nations, as we have in preparing for war in the name of defense, we would be creating a world in which cooperation is more important than war, in which protecting the environment is more important than trashing it, in which we spend more on education of our people than in building missiles and playing war games.

My experience tells me what the U.S. Navy is proposing to do is wrong from many aspects. The U. S. Navy should, in my experienced opinion, withdraw its Pacific Missile Range Facility so-called "enhancement" plan and work toward closing down the entire program as a step toward supporting global peace.

Recognition of the Rights of Kānaka Maoli:

Another step toward peace could be easily taken very soon, and that is to recognize the rights that Kānaka Maoli have to the lands illegally "ceded" to the United States by the illegal Dole government. The Navy should also recognize the rights that Native Hawaiians have to all other lands, including so-called "privately owned" lands (PASH 1995 Supreme Court Decision). It would be a great day for the world's environmental health, and that of its ocean creatures and land animals, including birds, if the U.S. Navy were to clean up Pearl Harbor, remove any and all nuclear material, including its nuclear ships, and, if it is not too late already, allow the once highly productive "Pearl Lagoon" to return to the condition it was in when the U. S. took it over. In addition, I would suggest that the U.S. military concentrate on a thorough cleaning up of the Island of Kaho`olawe that the U.S. military trashed so thoroughly for fifty years. We also need to have the U.S. army clean up Mākua Valley and return it to the Kānaka Maoli. The army once promised to return it in the condition it was when they took it over. Lualualei is another land that needs to be cleaned up and returned.

I do not believe this will happen soon, but it must eventually become a goal for the Nation if the people of this Nation wish to have the respect of the people of the rest of the world. After all, life on this planet will continue only if we nurture it, beginning right now.

Some people identify me as an environmentalist. Why are not we all "environmentalists?" Should we not care for and preserve these fragile islands and the sea around them so that they are healthy and productive for future generations? Isn't that an acceptable goal for all people, today? After all, life on this planet will continue only if we nurture it. So let's begin right now! Cancel the missile program.

M. Kelly

References

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1938 *An Island Community: Ecological Succession in Hawaii.* Chicago: University of Chicago Press.

Spaulding, Thomas Marshall
1923 *The Crown Lands of Hawaii.* Occasional Papers No. 1. Honolulu: University of Hawaii Press.

6

M. Kelly

9-337

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0960
23 OCT 1998

Ms. Marion Kelly
4117 Black Point Road
Honolulu, HI 96816

Dear Ms. Kelly,

Thank you for your comment of April 25, 1998 on the Pacific Missile Range Facility Enhanced Capability Draft Environmental Impact Statement (EIS). Your views on the history of land tenure in Hawaii are informative and have been noted. We appreciate your opinions on the Draft EIS, as public input is critical to the EIS process.

Please be advised that no proposals are being made regarding Midway. Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

As to threatened and endangered species such as the monk seal and green sea turtle, we are in consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service under the Endangered Species Act as indicated in Appendix K.

Your comments and proposal regarding closing down the program and the recognition of rights of native Hawaiians to lands are noted but are outside of the scope of this EIS.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

9-338

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0221

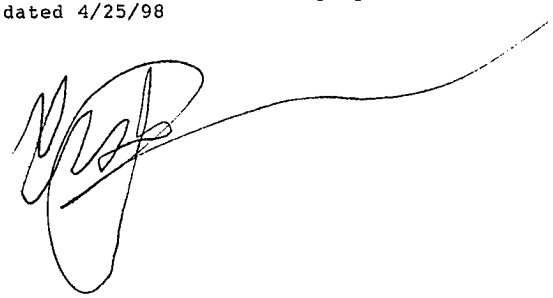
kewalo@hotmail.com, 09:11 AM 4/25/98 , Stop the stupid Ni'ihau missil

P-W-0222

To: kewalo@hotmail.com
From: kalawe <aumakua@aloha.net>
Subject: Stop the stupid Ni'ihau missile range!
Cc:
Bcc:
Attached:

>Date: Sat, 25 Apr 1998 09:09:07 -1000
>To: lcruz@hawaii.edu
>From: kalawe <aumakua@aloha.net>
>Subject: Stop the stupid Ni'ihau missile range!
>
>>Date: Sat, 25 Apr 1998 08:35:32 -1000
>>To: castanha@hawaii.edu
>>From: kalawe <aumakua@aloha.net>
>>Subject: Stop the stupid Ni'ihau missile range!
>>
>>Request for copy of the draft EIS should be sent to Vida Mossman,Pacific Missile Range Facility,P.O. Box 128,Kekaha,Hawaii 96752-0128.The deadline for written comments is may 26.
>>The proposed missile range facility is just another excuse for the American government to control Hawaiian lands and resources. Like all the other millitary bases in Hawaii and the pacific ,the mililtary will start building fences then soon either evict the hawaiian people from Ni'ihau or have them exterminated.The desecration of pacific islanders and there cultures in the pacific by the U.S. government is documented history.Just ask some of the people from Bikini atoll or Guam,Micronesia,Hawaii,Marshal Islands,etc.The people from Ni'ihau do not have the last say inregards to the proposed misssile range site.Ni'ihau,Waimea Ahupua'a,Hanapepe Ahupua'a , Kekaha Ahupua'a all have an undivided interest in land title. There are hundreds of land commission awards and royal patents that were issued during the priod of the Geat Mahele.That means there are thousands of hawaiians that still lay claim to these property.
>>The hawaiians that can trace there genealogy to the legal documents generated by the Great Mahele in regards to the property in question have the last say.In otherwords the hawaiians with the vested interest have the last say.The Robinson family are presently in the process of clearing the title to the property.The Robinson family do not have clear title to any property that they control today including Ni'ihau.
>>I am presenly involved in a quite title case in Hanapepe
>>Kauai.My ancestors had a vested interest and I have a vested interest today.I am one of those hawaiians that have the last say and say no missile range.I'll never sell out my vested interest to the U.S. government.
>I am Eric Po'ohina a direct descendant of Keola(k)Ali'i
>Nui of Kaua'i.My case number involving the Hanapepe Quiet Title action is 97-0362 5th Circuit Court Island of Kaua'i.
>Eric Po'ohina
>340-B Hualani St.
>Kailua Hi 96734
>email# aumakua@aloha.net
>fx/phone# 1-808-261-1814
>

Official written Testimony by Eric F.Po'ohina
dated 4/25/98



DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0903
23 OCT 1998

Mr. Eric Po'ohina
340-B Hualani Street
Kailua, HI 96734

Dear Mr. Po'ohina,

Thank you for your letter of April 25, 1998.

Your assertion of an ownership interest by others in Niihau is noted. The Navy is working with the residents of Niihau and the presently recognized owners. Should title be proven to reside with others, our actions will be modified accordingly.

We do not foresee that any of the actions being proposed for Niihau would force the relocation of the residents.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0222

9-339

P-W-0223

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I Strongly oppose the expansion of PMRF facilities I do not believe the impact on an environmental basis is minimal. The sealife of whales, dolphins Sea turtles, & monk seals will suffer. Also the impact of sonar testing upon humans is not truly disclosed in your environmental impact study. I do not believe the economic benefit brought by the additions will outweigh the detrimental - long term impact - upon our beloved island!

Please place form in the comment box or mail to:
- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name: A Concerned Kauai Resident
Address: Wailua Homesteads

Printed on recycled paper

6-340

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0961
23 OCT 1998

Dear Concerned Citizen:

Thank you for your comments on the Pacific Missile Range Facility Enhanced Capability Draft Environmental Impact Statement (EIS). We appreciate your opinions on the Draft EIS, as public input is critical to the EIS process. Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

No impacts to humans are expected during operation of sonar tests due to the fact that PMRF will not conduct any operation if humans or marine mammals are known to be in the operation area.

While the Navy does not claim that the proposed enhancements will have a substantial impact on employment or the local economy, we recognize that business and civic leaders consider the proposal to enhance PMRF's capabilities a positive development for the economic stability of Kauai and the larger Hawaiian community.

We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0223

P-W-0224

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

Statement against the proposed action:

1. Proposed missiles and their potential danger to neither the island of Kauai nor humans or animals are specified.

2. Potential adverse impacts were identified for Ren Island and Niihau (disturbance of Hawaiian monk seals, sea- and shorebirds).

3. Despite a good record PMRF can not guarantee for safety. Referring to transportation and storage of the oxidizer: What would happen to the island of Kauai if 1650 gallons of oxidizer explode? Let me remind you of Tschernobyl as one example in history. It was supposed to be safe also.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name Tanja Henks
Address PO Box 1318
Koloa, HI 96756

Printed on recycled paper

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0962
23 OCT 1995

Ms. Tanja Menks
PO Box 1318
Koloa, HI 96756

Dear Ms. Menks:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement (EIS). Our country was built on the idea that we all should be able to express our views and be heard.

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

As to threatened and endangered species such as the monk seal and green sea turtle, we are in consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service under the Endangered Species Act as indicated in Appendix K.

The potential safety impacts to humans are addressed in the Health and Safety Sections of Chapter 4. Oxidizer is not explosive—only when combined with other chemicals in the correct proportions will it burn. Its hazards consist of corrosiveness and irritation of the respiratory system, and the analysis of the unlikely event of a spill is addressed in Section 4.1.1.7.2.2.

The Congress of the United States has determined that we need to have effective defenses for our armed forces and allies against missile attacks, like the ones that killed many of our young men in Saudi Arabia during the Gulf War. Congress has also recognized that PMRF provides an ideal setting to test these systems because of its established technical infrastructure and the wide ocean expanse to conduct the actual intercept tests.

The leaders of our country must make many difficult decisions concerning how and where to conduct activities that will provide us with a strong defense. PMRF already conducts many testing functions vital to our national defense. The EIS is analyzing the environmental impacts of enhancing its capabilities to perform testing of missile systems to protect our armed forces and allies.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain and maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0224

P-W-0225

9-342

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

~~forth I believe.~~

From the ones who shared their mana'o (thoughts/opinions) to the ~~ke~~ have done well, ke'ia's who warmed the seats inside and the grasses outside, the Niihau people, that ~~were~~ walked I could understand the frustrations and anger of the Activist people, and their reasons for opposing this project. Kahidalaire, Liliuokalani and so forth, are our y + can not be forgotten. So, I do respect each individuals opinion - whether good or bad. The thing is, we have voices, and we can talk. We may not be well versed in the English language but we can get our point across if we want to, or better yet, have to. Whatever we decide, we are the one's who will live and suffer the consequences be there any. "Niihau can speak for its own" (L. Kaohelaulii, 1978). Thank you for giving us the time to speak our mana'o, and I hope that our mana'o will be sufficient in the process of decision making. I do support this project.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

NAME: Kahea Kaohelaulii
ADDRESS: 742 A Lukepane Ave
Honolulu, Hawaii 96816
808. 734. 6010

April 1998

Printed on recycled paper

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0904
23 OCT 1998

Mr. Kahea Kaohelaulii
742 A Lukepane Avenue
Honolulu, HI 96816

Dear Mr. Kaohelaulii:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement.

We recognize the concerns relating to Niihau and its residents. To ensure the participation of Niihau residents in the process, we have conducted two informational meetings on Niihau. We believe that these meetings, coupled with the testimony of several Niihau residents at the Waimea public hearing April 25, 1998, indicate a full and complete understanding of the proposed action and its potential impacts.

Let me assure you that those of us who have the privilege of working at PMRF want to do everything we can to gain and maintain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0225

P-W-0227

April 28, 1998

In regards to the use of State, Federal and private lands to support range enhancements at PMRF:

We feel that these enhancements are important protection against SCUD missiles that may be a real threat in the future from countries such at North Korea and China. It seems that the TBMD and TMD program have gained the support of many people in the Kauai County, especially Niihau.

Would it be possible to limit the enhancements to Kauai and Niihau? The residents of Tern Island and Johnston Atoll (monk seals, turtles, and birds) cannot voice their concerns. While we must protect ourselves from hostile forces, we must also protect the wildlife to which we are stewards. Please don't consider Tern Island and Johnston Atoll as launch areas.

Sincerely,

Debbie Mullen
Michael Mikellis

9-343

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0964
23 OCT 1998

Ms. Debbie Mullen
Mr. Michael Mikellis
6590-J Puupilo Road
Kapaa, HI 96746

Dear Ms. Mullen and Mr. Mikellis:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to maintain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0227

P-W-0230

9-344

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I am against any expansion of the military including the Pacific Missile Range Facility. Excess causes decline.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name KATHERINE STACK
Address 1918 Ho'one Rd.
Koloa Hi. 96756

April 1998

Printed on recycled paper

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0967
23 OCT 1998

Ms. Katherine Stack
1918 Ho'one Road
Koloa, HI 96756

Dear Ms. Stack:

Thank you for your comments on the Pacific Missile Range Facility Enhanced Capability Draft Environmental Impact Statement (EIS). We appreciate your opinions on the Draft EIS, as public input is critical to the EIS process. Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0230

P-W-0231

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

I am certainly a "animal activist" I love the whales, swales etc. But If there a choice between my life, my sons life or my grandchildren — versus marine life — sorry — I must to be protected. I am also a business person who realizes what PMRF does for the community

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name Gloria M. Duarte
Address PO Box 1027
Waimea HI
96796

April 1998

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9-345

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0905
23 OCT 1998

Ms. Gloria M. Duarte
PO Box 1027
Waimea, HI 96796

Dear Ms. Duarte:

We appreciate your expression of support for PMRF. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0231

David S. Nekomoto
P.O. Box 123
Lawai, Kauai, HI, 96765
(808)332-7287

25 April 1998

Pacific Missile Range Facility (PMRF)Enhanced Capabilities
Comments on Draft Environmental Impact Statement:

I would like to open by saying that I am in full support of the proposal to enhance the capabilities of the Pacific Missile Range Facility. The enhancements would facilitate PMRF's ability to host tests of Theater Ballistic Missile Defense (TBMD) systems. I am of the belief that the many men and women who work to make these programs happen are success oriented and the risks are definitely worth the rewards. Our nation needs these missile defense systems, and the Americans we send into harms way should have the best possible equipment to operate with. The State and County also stands to benefit economically in a very significant way.

The issues surrounding the use of Niihau will certainly be a center of controversy. I have worked with and for the Robinsons for over 15 years from my days as PMRF's Aircraft Maintenance Officer and Executive Officer, and subsequently as an employee of Niihau Helicopters and Niihau Ranch. Over this period, I have probably seen more of Niihau and its people than any non resident has. I consider the people of Niihau my friends, and would never think of doing anything that would cause them problems. I also know the Robinsons, and can say without doubt that they also are very sensitive to the feelings of the residents on Niihau whenever anything new is introduced to the island.

I constantly learn new things about Niihau and I have been distressed by articles I read about the place written by people who have barely stepped foot on her shores. There is no way anyone can capture the essence of the island in a few momentary meetings with only several individuals, recording their view of the world as the standard by which all Niihau events should be judged.

Niihau is the home of a ranch. Employees drive trucks, ride horses, work cattle and sheep, make charcoal, harvest honey. PMRF has been there for fifteen years, providing some employment to support two sites, each leased to the Navy by the Robinsons for a dollar a year. The Navy leases the Robinsons the landing craft used to support the ranch and the Navy for a dollar a year. It's been a good relationship. The radar site on Niihau provides a valuable look at Kauai's north coast to ensure safety. The Makaha Ridge radars cannot see the same view due to their elevation which creates a blind spot. US Marine Corps helicopters train on Niihau on an established terrain flight training route, and receive valuable electronic warfare training there. Returning pilots from Dessert Storm have attested to the value of this training. Marine Reconnaissance Forces have conducted training operations on Niihau, claiming that the training received was outstanding and probably the best they've ever had. The people of Niihau have proudly supported all of this. The Robinson's are personally committed in supporting the Department of Defense and PMRF as their neighbor.

There is a common perception that Niihau should be preserved as the "last bastion of Hawaiiana"--what does this mean??? People on Niihau don't live in grass shacks, pound poi or do Hawaiian crafts all day. They do speak their own dialect of the Hawaiian language, and they do want to maintain the style of life that the Robinsons have been committed to preserve for them for the past one hundred thirty four years. Is that style of life the same today as it was a hundred years ago? What about our own lifestyles? Definitely not the same--would we want it to be the same? I think not. Today, by their choice, Niihauans have solar electric systems in their homes, and I see wind generators which also help power lights, refrigerators, televisions, VCRs and freezers. Their style of living is evolving, a bit slower than ours, but definitely on the move. They like their western shirts, cowboy boots, hats and country music and going to Las Vegas or Disneyland as much as anyone else would.

On the 17th of April, PMRF launched a target rocket which was part of a tracking exercise. The rocket is equivalent to the largest type which would be considered for launch from Niihau Island. About a hundred Niihauanswere invited to see the rocket on the pad, watched the launch and went to the launch pad to view the after effects of the launch. What they saw there comforted them. The paint on the launch rail was singed (less than 25% of the total surface area) and the ground and grass in a small area (about 10'x20')on one side of the launcher was similarly singed. Every Niihauan I spoke with there didn't think it was a big deal.

Please lets not build a big emotional case about destruction of the last remaining bastion of Hawaiiana by "killer missiles". Niihauan residents should be their own spokesmen as to whether they want this activity there.

What about the fishery and Monk Seals on Niihau? It's true that Niihauans depend on the sea for much of their subsistence. On more than one occasion, I've seen pretty large fishing boats crashed upon the reef, debris and diesel oil flowing from the wreckage, and the Robinsons having to foot the bill for the cost of the cleanup. I have watched a local fishing boat year after year net tons upon tons of akule (bigeye scad) from Niihau's inshore waters, aided by an aircraft fish spotter who flies there from Kauai. Recently I've noticed a fairly large dive/charter boat regularly operating close to shore, discharging divers, and surfers in the waters off Poleho. I've observed people walking the beaches uninvited, I've even seen where someone shot many bottles on the beach, leaving dangerous shards of glass in the sand. Many people go ashore and take opihi, they shoot at the sharks. In my opinion, these have far greater impact on the seals and fishery on Niihau than any defense project would ever have, and to exacerbate the situation, they leave no benefits for the Niihau people, whereas the TBMD effort will provide work and much needed income.

Flying around Niihau as often as I do, I keep watch for the breeding sharks, I notice the Monk Seal pups every year, I see the tracks of sea turtles on the beach when they come up to lay their eggs, I know when Niihauans have a good salt year at Leahi, and when the animals have to scrounge for water at Keanahaki. The Robinsons and Niihauans know these things and much more. They keep track of all the natural cycles on the island--the oama, moi, akule, the golden plover, the albatross. They are good wards of the land--all Navy operations to date conducted at Niihau have been subject to strict protocol established in agreement between Niihau Ranch and the government, designed to allow operations while maintaining privacy of the residents and protection of land and biological resources. Compliance with this protocol is mandatory. There have been no incidents to date. Navy, Marine Corps, government civil service and contractor personnel involved have been good guests. There is no reason for me to believe that things will be different in the future.

I just read news articles about fifteen Chinese Silkworm type surface to surface and surface to air missiles being stolen from an underground tunnel in Albania, and another article which reported that China's defense budget reflects a fifteen percent increase over last year's. The latter article also reflected a military analyst's assessment that China has

improved its missile programs based on Russian technology. Not too long ago, I read where Iran just tested a new missile system. The fact is there are over 30 nations with cruise missile or theater ballistic missile (TBM) capabilities, many of which are not friendly towards the US. Russia has sold much of her military technology in the world market in a garage sale fashion, to ease their financial pains. It's no secret that Saddam Hussein used this technology every time he launched a SCUD at allied forces or towards populated areas in Israel. Senator Inouye was one of the principals responsible for keeping the Patriot missile system "on the shelf" instead of being scrapped, as was the general outcry. The US employed the Patriots, (which were originally designed to defend against aircraft) to the battle area to counter the SCUDs. The Patriots achieved some intercepts but drew criticism later because of it's less than perfect record (which was to be expected, as TBMs are much faster and generally much smaller than aircraft). I think that the US would have drawn even more criticism if the Patriot had been scrapped earlier, leaving us without a suitable system to defend against Iraq's TBM threat--our nation as well as the coalition of nations involved in Operation Desert Storm owe a debt of gratitude to Senator Inouye and the other congressmen who supported retention of the Patriot missile system.

Desert Storm taught us about the need to detect and intercept TBMs much earlier than we are now capable of doing. Congress and the Department of Defense established the very highest national priority for theater ballistic missile defense (TBMD) and cruise missile defense (CMD) programs. The brilliant minds of America were put to task to come up with solutions for these problems. We needed to develop better detection systems, much more capable data links, and a new system architecture. PMRF played a very significant role in initial experiments of the concepts developed. Senator Inouye, who is intimately aware of PMRF's capabilities to support TBMD testing was responsible for Congress' support of PMRF as the primary range facility to support Navy TBMD testing. PMRF has not let Congress down--the Extended Track and Control Experiment, the Mountaintop Advanced Capability Technical Demonstration, the Army Mountaintop Experiment and the Littoral Area Air Defense Exercise were all extremely successful operations hosted on Kauai which generated vital data and initial proof of the concepts being developed. PMRF's four highly successful STARs launches from the Kauai Test Facility also proved our abilities. The whole crew at PMRF from the skipper on down have performed marvelously,supporting and executing these complex evolutions in a safe, professional manner.

In keeping with Congress' designation of PMRF as the primary Navy TBMD test range, supported by their own internal assessment of all of the ranges in the world which could support their programs, the Program Executive Office for Theater Air Defense, or PEO(TAD) plans to do their testing at PMRF. PMRF's Program Managers have been working very closely with their counterparts in Washington DC for several years now, and have done a superb job executing the successful concept demonstrations and coordinating the myriad of requirements necessary to establish the Navy programs at PMRF. As soon as nominal test scenarios were disclosed, it became obvious that no range in America's inventory could support the requirements without improving infrastructure and involving much larger areas than ever before. The need for a sea test range such as PMRF to support these new systems was evident. This EIS effort was initiated, and all sites and systems which possibly could support the proposed scenarios were considered, as required by the National Environmental Protection Act (NEPA) and Hawaii's equivalent HEPA. PMRF, Niihau, Tern Island and Johnston Island are being considered as support sites in PMRF's proposal to support the Navy Area program--many others were considered, but rejected for one reason or another--Palmyra, Kahoolawe, South Point on the Big Island, Lanai, Kingman Reef, Necker, Nihoa, Kiribati, etc. Sites at Midway, Wake and the Aleutians may be assessed at a later date for their ability to support the Navy Theater Wide program.

The National Missile Defense (NMD) program, which had been ongoing as the so-called "Star Wars" program was de-emphasized, as this is defense against long range threats which only the Russians could have fielded. The general feeling was to scrap these programs as Russia no longer appears to be a threat, and for a while, NMD suffered severe funding cuts--resulting, among other things, reduction of the number of STARS missions flown from PMRF. More recently, Congress opted for continuing NMD efforts to enable keeping a system on the shelf just in case our nation would eventually need the capability. At this point, I don't know if this will mean resumption of STARS missions at PMRF. There is an important parallel scenario here between NMD and the Patriot systems--after all, the Russian long range missiles are still out there, and as long as they are, there's the possiblity of their posing a threat to America.

It hasn't been all roses for PMRF, as budget shortfalls and cuts have been a constant plague in recent years, since that day in 1993 when the Chief of Naval Operations staff decided that PMRF's Fiscal Year 1995 operating budget would be reduced to zero. Senator Inouye responded immediately, pointing out that PMRF has capabilities needed by our nation, and effectively reversed the Navy's decision. PMRF's Test & Evaluation range users also rallied and pointed at PMRF's capabilities which were needed to support their programs. After this sobering moment in our history, Bob Mullins, then CO of PMRF concluded that marketing PMRF's capabilities would be crucial to survival of the range. The Kauai Economic Development Board responded immediately to my request for funding to implement this program, obtaining funding from the State Legislature which facilitated, with the PMRFCO's blessings, the birth of a highly successful program to date, which served to educate our nation's leaders in Test & Evaluation and the T&E community in general about the virtues of our range on Kauai. In doing so, we have enjoyed success stories such as the NASA Pathfinder Solar Powered Aircraft project being attracted to Kauai as a result of this marketing effort. On the funding side, Senator Inouye has exerted much of his energy in providing Congressional funding to provide for the developments in PMRF's infrastructure to serve our nation's interest. Senator Akaka is a supporter. Representative Neil Abercrombie also weighed in and obtained House support for PMRF, while the Improvement and Modernization funds that PMRF normally receives for infrastructure development from Navy channels has been almost totally reduced by the budget process. The efforts of many people, combined with the outstanding operations and program support provided by PMRF personnel has kept PMRF alive and functioning despite defense drawdowns to date.

I appreciate the opportunity to provide an input in this process. Please count me in as a solid supporter of PMRF and its programs.

Sincerely,
David S. Nekomoto

9-348

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0906
23 OCT 1998

Mr. David S. Nekomoto
PO Box 123
Lawai, Kauai, HI 96765

Dear Mr. Nekomoto:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement.

We recognize the concerns relating to Niihau and its residents. To ensure the participation of Niihau residents in the process, we have conducted two informational meetings on Niihau. We believe that these meetings, coupled with the testimony of several Niihau residents at the Waimea public hearing on April 25, 1998, indicate a full and complete understanding of the proposed action and its potential impacts.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J.A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0236

ELIZABETH ANNE FREEMAN

Concerning the PMRF Enhanced Capability Draft E.I.S.

April 25, 1998

P-W-0238

To the Endangered Monk seals, the protected Green Sea Turtles and the 17 species of rare seabirds utilizing Tern Island that this proposed action may concern ——

For the past many years the U.S. Fish and Wildlife Service has operated a permanent station on Tern Island laboring quietly and diligently to monitor and assist those of you whose numbers are sadly dwindling due to the onslaught of 'civilization'. As you know — they have regarded Tern as a precious sanctuary — treating all of you with the utmost respect, speaking in hushed tones, never even approaching the beach if a monk seal or green sea turtle were resting there.

Now the intelligentsia in the Ballistic Missile Defense Organization and the Department of the Navy have determined that on this tiny stretch of land in the Northern Hawaiin chain where biologists have 'tiptoed' around in an effort to minimize any human impact on your fragile ecosystem, THEY can LAUNCH MISSILES in the same place with No Significant Impact to any of you! Go figure!

Post Office Box 298; Kilauea, HI 96754 Phone: (808) 828-0014 FAX: (808) 828-0015

page 2

ELIZABETH ANNE FREEMAN

I hope you understand that to most humans this type of irrational reasoning defies credibility!

I am very sorry about this terrible 'Tern' of events.

With deep apologies —

Elizabeth Anne Freeman

Post Office Box 298; Kilauea, HI 96754 Phone: (808) 828-0014 FAX: (808) 828-0015

9-349

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0969
23 OCT 1995

Ms. Elizabeth Anne Freeman
PO Box 298
Kilauea, HI 96754

Dear Ms. Freeman:

Thank you for taking the time to participate in the public comment process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement (EIS). Our country was built on the idea that we all should be able to express our views and be heard.

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

The Congress of the United States has determined that we need to have effective defenses for our armed forces and allies against missile attacks, like the ones that killed many of our young men in Saudi Arabia during the Gulf War. Congress has also recognized that PMRF provides an ideal setting to test these systems because of its established technical infrastructure and the wide ocean expanse to conduct the actual intercept tests.

The leaders of our country must make many difficult decisions concerning how and where to conduct activities that will provide us with a strong defense. PMRF already conducts many testing functions vital to our national defense. The Enhanced Capability EIS is analyzing the environmental impacts of enhancing its capabilities to perform testing of missile systems to protect our armed forces and allies.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain and maintain your trust and support.

9-350

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0238

Ann Leighton
4555 Pouli Rd
Kapaa, HI 96746
PH 808-639-3249
FX 808-822-0267
twowhls@aloha.net
May 8, 1998

Vida Mossman
PMRF Barking Sands
Kekaha, HI 96752

Dear Ms. Mossman,

I was unable to attend any of the public hearings concerning the DEIS for the proposed PMRF enhancements and I would therefore like to submit this written testimony in support of the proposition. I was born and raised here on Kauai and I recognize that PMRF has long been a good neighbor - particularly to the island's west side communities. And, in a larger context, the base has proven itself to be a valuable asset to our nation's defense. The following are my reasons for supporting the proposed enhancements:

*The range offers unsurpassed opportunities for training which cannot be matched at any other facility;

*the base's future depends, in large part, on its ability to providing continuing, high-quality and state-of-the art training scenarios;

*as the Niihau residents have said, PMRF provides them the opportunity to perpetuate their chosen lifestyle by providing funding for both the island's owners (fees) as well as individuals (jobs);

*as much of the enhancements are of a technological nature, the cultural and environmental impacts will be minimal;

*the proposals will enable PMRF to continue to be a significant and stable employer for Kauai and Niihau residents;

*PMRF will continue to be an important contributor to Kauai's struggling economy.

I grew up during the 1960s but I now recognize that our strong national defense enabled us to ultimately prevail in the Cold War. As much as anyone I wish that we could forge bullets into plowshares. However, we enjoy freedoms that many others in the world do not and I feel that it is incumbent upon Kauai to share its assets in the effort to maintain our military's capabilities. We reap the benefits in a multitude of ways and, for those who do not appreciate that point, I respectfully suggest that they purchase a one-way ticket to someplace such as Baghdad.

Thank you very much for this opportunity to express my opinion.

Sincerely,

Ann Leighton

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0907
23 OCT 1998

Ms. Ann Leighton
4555 Pouli Road
Kapaa, HI 96746

Dear Ms. Leighton:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0242

9-351

John Love
5911 Kini Place
Kapaa, HI 96746
823 0865
May 8, 1998

Ms Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Hawaii 96752-0128

Subject: Comments on Draft Environmental Impact Statement dated 3 April 1998

I strongly support the proposed expansion of PMRF capabilities to support development and test of Theater Ballistic Missile Systems. I have only one major criticism, though it has nothing to do with the DEIS *per se*. I am very concerned about the potential impact of our country's slow pace in developing the full range of ballistic missile defenses we should have. Responsibility for that glacial pace lies with the Department of Defense and our politicians in Washington, not with those responsible for test and evaluation.

Congratulations to all involved in producing a thorough and candid draft environmental impact statement (DEIS). At first I lamented the sheer size of the two volumes, and that so many trees had to die for their publication. However, after just a few minutes spent reading, I realized that concern was totally misplaced. You have created a valuable reference and a treasure-trove of information on the diverse subjects necessary for evaluating the proposed actions. The data is clearly and lucidly presented and will be of use long after this review process is complete.

More important, potential negative impacts have been identified and honestly evaluated, with assessments clearly stated. As the evaluation proceeds, proponents and opponents alike have the necessary background information available for informed discussion.

Our friends and neighbors who urge evicting the military and converting PMRF to "peaceful" uses have got it all wrong. PMRF is a force for peace. We urgently need ballistic missile defense in a world growing ever more dangerous, as discussed below. The only way to true peace is to remain more powerful than our potential enemies.

Those who long for a demilitarized Pacific basin might argue that if Hawaii had been a sovereign nation before WW II and the U. S. military had not been here, then Pearl Harbor would not have been bombed. They are correct, but only so far.

The Japanese would simply have occupied Hawaii because of its enormous strategic value. Skeptics should recall that, in spite of our military presence, the Japanese occupied Attu and Kiska in the Aleutians. Captured plans also show they hoped for a decisive naval victory at Midway, to be followed by occupation of Midway and the rest of the Hawaiian chain.

Our need for military strength to preserve peace is greater than ever. China continues to aggressively improve her military with the clear intent of projecting power in the Pacific. She has deployed about a dozen DF-5 ICBMs with 13,000 km range and nuclear warheads.

These ICBMs can reach all 50 of our states. China is developing the DF-41, with 12,000 km range and multiple independent re-entry vehicles. Why do they think they need this capability? One must also be reminded of Japan's commitment to power projection in the 1930's. Is China on a similar course 60 years later?

Russia still has a huge nuclear arsenal. The possibilities for its misuse are growing. Russia is less stable this year than last. The Russian Mafia is ever more powerful, and the people are less well off. The situation is very reminiscent of Germany before WW II.

Even the current Russian government gives ominous signs. They are investing in a new generation of ICBMs. They are upgrading their ballistic missile defense system which has been operational for many years, protecting Moscow. (Many Americans are surprised to learn that we still have absolutely no defense against ICBMs.)

With Russian and Chinese help, third world nations including Iraq and Iran are developing chemical, nuclear, and biological weapons and missile delivery systems faster than predicted just a year ago. Some argue that such weapons can be delivered other ways. Then why is the third world so anxious to own missiles?

Desert Storm made clear the urgent need for theater missile defense. 50 state defense is equally important. Because of its existing capabilities, modest expansion of PMRF is the lowest cost way to support realistic testing, to be certain such systems will work when needed.

Yes, some wildlife may be disturbed in the process, but that must be kept in perspective. For example, worst case expansion at Tern Island would involve human activity dwarfed by what has gone before. Tern Island has seen humans for decades, including current day naturalists. A runway has been built. Ships and planes have come and gone. Wildlife still flourishes. With reasonable care, wildlife will continue to flourish.

Many in our community have voiced concern for what might happen if one of the various missile launches (test targets, interceptors, etc.) should go wrong. These

are natural concerns and would be quite valid but for the stringent range safety practices developed and practiced in this country since the dawn of the space age in 1957.

Lay people may not realize that range safety has its roots in detailed analyses of the launch vehicle and its payload long before launch. The object is to identify any failure which can possibly occur, and if it should occur, what would the safety implications be. The results of these failure analyses are fed into detailed simulations to establish safety boundaries on mission parameters.

These safety boundaries may be keep-out zones around the launch pad or in a fan like pattern under the nominal trajectory over the ocean. They also include constraints on the allowable wind strength and direction at the time of launch. On the day of the launch, range safety officials are responsible for verifying that all of the pre-launch constraints have been met, e.g. that no people or animals have strayed into the keep-out zones, winds are acceptable, etc. If those conditions are not met, the launch is scrubbed or delayed.

Once the rocket is launched it is monitored and tracked. If a guidance or control failure causes it to veer off course, the range safety officer is responsible for destroying it before it can possibly fly outside of the pre-established safety zones. To do so, destruct packages controlled by independent command links are used.

PMRF has applies these practices and has an excellent safety record in launching many rockets over many years. Testing Theater Ballistic Missile Defense systems will add a new dimension because of the number of vehicles involved. Review of the notional test geometries in the DEIS indicates the problems should be manageable by extending current practices. The safety issues for each individual land based launch site are those we are used to dealing with. Coordination is required to assure that safety constraints at all the sites involved in a test are met before the test is started.

Most of the new complexity involves multiple vehicles operating on and over the surface of the open ocean. Here PMRF's experience and expertise in controlling fleet exercises will come into play. It appears difficult to keep risk levels as low as I am accustomed to in civilian peacetime operations; I defer to military experts to judge both risks and their acceptability. However, I see no reason for our civilian population to be concerned.

The DEIS tends to understate the socioeconomic impact. We are not just talking about the jobs on base. Like us, those who work on base keep precious little of what they are paid. They need food, housing, doctors, lawyers, teachers, cars, clothes, etc. In short, the imported money they spend generates other jobs on island. Studies of other bases indicate each job on base probably generates 3 other jobs in the community.

On this subject, there have been letters in the local press critical of the figure of $189 per day used on page 4-71 of the EIS to estimate expenditures by workers visiting PMRF to support tests. Some of the acrid criticism (e.g. "fraud" and "misuse of government funds" and "a vacation...on our tax dollars") indicates great misunderstanding by people who have never been there and done that.

First, no government agency or contractor sends a worker on temporary assignment, or TDY, unless the need is urgent and cannot be done by local personnel. It is too expensive. Second, temporary relocations are far from being vacations. They never send more people than absolutely necessary, and schedules are usually demanding. Twelve hour workdays are more common than not. Some vacation!

Third, the EIS does not mention per diem, just an estimate of what visitors on TDY will probably spend. The government stringently regulates what costs can be compensated for people on TDY. Government workers have a maximum per diem which is adjusted to reflect the local cost of living, and which never allows luxury living.

Contractor personnel are compensated for some but not all of their actual expenses. The companies I know have firm guidelines for how much can be spent for all expenses including hotel rooms and car rental. Government and contractor employees alike must submit receipts proving expenditures were actually made.

People on TDY still have bills to pay back at home. The mortgage and car payments don't go away just because they have the "privilege" of working thousands of miles away from home and family. It is reasonable and just that they be compensated for the extra costs of living incurred.

And for those who think an estimate of $189 a day may be too much, try pricing modest hotels and three meals a day in restaurants on the West and South side of Kauai. Don't forget tips and all the taxes. Add in a compact rental car, laundry and dry cleaning. You will find precious little left over for non compensated discretionary spending.

Godspeed to you who labor on behalf of our freedom at PMRF, and to those in Washington ultimately responsible for our national defense.

Aloha,

John Love

John Love

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0908
23 OCT 1998

Mr. John Love
5911 Kini Place
Kapaa, HI 96746

Dear Mr. Love:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. This proposal recognizes the necessity of keeping our armed forces strong and technically superior to potential adversaries, particularly in the area of missile defenses.

PMRF is proud of its safety record and stewardship of the environment in its more than 35 years of launching and testing missile systems. We have been able to conduct our programs over the years with very little environmental impact, and our goal is to continue to do so. We recognize that many who have opposed PMRF programs have claimed that there would be unacceptable environmental impacts as a result. We do not believe this has been borne out.

We believe that with the continued viability of PMRF through enhanced capabilities to conduct advanced missile testing, its employment base will remain strong and promote continued economic stability on Kauai. We look forward to continuing to be a good neighbor to the people of Kauai.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0243

Testimony on the Pacific Missile Range Draft EIS
By Nani Rogers, April 25, 1998, at Waimea, Kaua`i

Aloha me ke aloha pumehana kākou. My name is Puanani Rogers. I was born and raised and still live in the ahupua`a of Kealia, Kaua`i, where my grandparents lived. I have six children and six grandchildren. He Hawai`i au. The blood is in my veins.

It is very hard for me to stand here and to speak to you. To be honest with you, I am very nervous, so olu`olu `oe (please) forgive me if I may hesitate along the way.

It is very hard because of the emotions that this issue brings to the surface. It is very hard because 5 years ago, I stood in the Kaua`i War Memorial convention hall to speak at a public hearing with the Navy, and spoke in opposition of the first launch of the STARS missile program at PMRF. Although there were many people that were against it, the missiles were launched anyway, we could not stop PMRF.

I feel defenseless against PMRF, like a flea against an elephant. But as the saying goes, "You can eat an elephant, one bite at a time."

For the past 5 days I have been mulling over and over in my mind about what I would say, and up to last night, I still had nothing written down on paper. I could not sleep, and at 12 midnight I got out of bed, went to my table, picked up a tablet and with pencil in hand, this is what I wrote.

PMRF = war. War = kill. Ke Akua's (God's) law says, "Thou shalt not kill." PMRF does not follow Ke Akua's law.

If you support PMRF, if you work for PMRF, then you support War, and you support Killing. And you go against Ke Akua's law.

PMRF sits on sacred lands. PMRF sits on stolen lands. Ke Akua's law says "Thou shalt not steal." If you support PMRF, if you work for PMRF, you are going against Ke Akua's law.

Many of the words of PMRF is deceitful (ma`alea). They say we are safe, there will be no harm to land, people or living things in our ocean, and yet they test weapons that will kill all of these things. Ke Akua's law says "We must not harm any human nor any thing." PMRF ignores Ke Akua's "Law of Harm."

Ke Akua says we must pule (pray). He says we must have faith in our pule. Our faith and pule will protect us. PMRF says they are protection, but it is we who need to be protected from them. They are the evil doers.

We pray for the mana (spiritual power). The mana will take care, we say. But I say, "Use wisdom (mana`o akamai) and beware of those who will suck our mana, and try to weaken our strength."

We must kū`e hou (resist again). We must ho`omau (persist in). We must ho`opa`a in `oia`i`o (the truth). We must be non-violent. We must ho`okūkahi, stand together for peace, not war (kaua).

We must live as people of aloha, because that is who and what we are.

Pule to Ke Akua to let his love/truth/light to shine upon us, and may we all dwell in Peace among ALL Mankind.

Ke Akua pū.

Mahalo

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/0972
23 OCT 1998

Ms. Nani Rogers
PO Box 88
Kapaa, HI 96746

Dear Ms. Rogers:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement. Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

Let me assure you that we who have the privilege of working at PMRF want to do all we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0244

P-W-0246

Rev. Ilse N. Peetz
P.O.Box 298
Kekaha, HI 96752
Tel. 337-1464
(after June 10:
33115 N. 135 St.E
Pearblossom, CA 93553)

May 8, 1998

Captain J.A. Bowling, U.S.Navy
PMRF Commanding Officer
P.O.Box 128
Kekaha, HI 96752

Dear Captain Bowling:

Thank you for your letter of March 11 in answer to my comments on PMRF's expansion plans.

I am diligently reading Section 4 of the Draft EIS, concerning Niihau.

I am reading that Hawaiian Monk Seals and the Green Sea Turtel might be disturbed by landing crafts. The EIS suggests that the appropriate bays be monitored before any craft will land. How will this be done? Will it be that when a craft approaches, a crew member would swim toward the coast to see if any seals or turtles are sharks are beached; and if so, the craft would land elsewhere? How does the monitoring proceed?

I appreciate that the Navy is concerned about native vegetation and animals. However, non-native Kiawe trees as well as feral pigs and sheep do not seem to matter much to the Navy and could well be destroyed. I wonder how Missile launch pads and airstrips are more congruent with the native environment on Niihau than non-native trees and animals.

I also appreciate how the Navy apparently tries to minimize any adverse impact on population and natural environment in its proposed operations on Niihau. Therefore, I suggest that the population be monitored for asthma and other lung ailments in response to the emission gasses of the operations.

Unspent solid and liquid fuels should not be allowed to enter the soil on Niihau but collected, cleaned and recycled. I feel very strongly that, if hazardous waste cannot be transformed into non-hazardous substances, the operations causing such waste must not be undertaken.

On page 4-135, I read the sentence: "Calcium is also water soluble, so ϕt is anticipated that any resicual material or unreacted fuel would be washed into the groundwater or directly out to sea." My question: What will it do there?

In various places, I read, "mitigation measures could be implemented ...". I say, where ever the EIS writes "could", it should write "should" or even "must", because the Navy has to commit herself to these suggested safeguards, completely.

I will direct my comment #2 to Congress who makes policy on TBMD. I do not want another arms race to occur on earth.

Concerning your response #3 to my comment #3, I highly recommend that PMRF establish a program by which people on Kauai now on Welfare can acquire skills that lead to gainful employment. It is the US Government who introduced the present welfare reform. So it would be only fair that a government agency like the Navy would take part in the transition from welfare to work.

Respectfully, Rev. Ilse N. Peetz

9-355

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0974
23 OCT 1998

Reverend Ilse N. Peetz
33115 N. 135 Street E
Pearblossom, CA 93553

Dear Rev. Peetz:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

Monitoring the beaches for the presence of Hawaiian monk seals and green sea turtles that might be disturbed by landing craft would be accomplished by Niihau residents walking the beach before landing. If their presence is noted, the landing craft would either wait for their departure or land elsewhere on the island.

Feral pigs and sheep are considered pests on Niihau and so the extremely unlikely event of a mortality would actually be beneficial for the island's ecology.

Exhaust plumes would dissipate quickly with no exceedance of ambient air quality standards beyond the bounds of the Ground Hazard Area, which would be well-removed from Niihau's population center. Therefore, monitoring of Niihau's population for asthma and other lung ailments would not be necessary.

No liquid fueling operations would take place on Niihau and all reasonable precautions would be taken to avoid spills. In the unlikely event of soil contamination from the accidental release of the small quantities of the oxidizer, the contaminated soil would be quickly removed, thereby eliminating the potential for groundwater contamination. Any oxidizer or calcium nitrate washed out to sea would be quickly diluted below problematic concentrations.

We recognize the importance of, and need for, mitigation measures to minimize impacts. Recommendations for their implementation will be made, and the Record of Decision will identify those deemed necessary.

Establishing a skills-training program for welfare recipients is not within the purview of the Navy.

The Congress of the United States has determined that we need to have effective defenses for our armed forces and allies against missile attacks, like the ones that killed many of our young men in Saudi Arabia during the Gulf War. Congress has also recognized that PMRF provides an ideal setting to test these systems because of its

established technical infrastructure and the wide ocean expanse to conduct the actual intercept tests.

The leaders of our country must make many difficult decisions concerning how and where to conduct activities that will provide us with a strong defense. PMRF already conducts many testing functions vital to our national defense. The Enhanced Capability EIS is analyzing the environmental impacts of enhancing its capabilities to perform testing of missile systems to protect our armed forces and allies.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain and maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0246

Beverley Chanley
Capt. Corbin Cherry, U.S. Army (Ret.)
245 Morning Sun Ave.
Mill Valley CA 94941
April 27, 1998

Captain J.A. Bowlin
Dept. Navy
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Hawaii 96752-0128

Dear Captain Bowlin,

We thank you for sending us the Environmental Impact Statement concerning the proposed construction of missile sites in and around delicate environmental areas in Hawaii. We regret that we could not come to the public meetings this month in Hawaii.

We continue to oppose the construction of missile sites in pristine, environmentally sensitive sites where endangered creatures are struggling to exist and procreate, especially the sea turtles, monk seals, and whales. The earth cannot continue to sustain the types of environmental degradation and habitat destruction that industrial and military pursuits are imposing. It seems to us that the United States should begin to take a global leadership role in the development of strategies to preserve our planet, for our children and for our fellow creatures; to devote much needed resources toward cleaning up the only home we have, rather than toward making instruments of war. The time to start is now, before it is too late. We sincerely hope that the Navy will abandon its plans regarding these missile launching sites, and devote its attention to benevolent, earth-friendly pursuits.

Sincerely,

Beverley Chanley
Corbin Cherry

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0975
23 OCT 1998

Ms. Beverly Chanley
Mr. Corbin Cherry
245 Morning Sun Avenue
Mill Valley, CA 94941

Dear Mr. Cherry and Mrs. Chanley:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement. Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

Let me assure you that we who have the privilege of working at PMRF want to do all we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0247

9-357

P-W-0248

May 8, 1998

PMRF Public Affairs Office
P.O. Box 128
Kekaha, Hawaii 96752-0128

On Saturday, April 25, 1998, I attended the hearing in Waimea, Island of Kauai, regarding the Environmental Impact Statement (EIS) for the proposed Enhanced Capability of the Navy's Pacific Missile Range Facility (PMRF) in Hawaii.

To introduce myself, I am Jack Williams, age 62 and retired from California state government. I am a permanent Kauai resident and live here with my wife Sandy. The beauty of the island with its abundant plant and animal life were factors that drew us to the island. During my entire adult life, I have been concerned with conserving and preserving plant and animal species so that they will continue to be here for posterity, including my children, grandchildren, and succeeding generations of others. I consider myself a "responsible" environmentalist and am a member of the Sierra Club, the Nature Conservancy, Audubon, and other groups that share my concerns. The thoughts I present here are totally mine, however, and do not necessarily reflect the policy or position of these organizations. Following are some of my thoughts and observations of the PMRF hearing:

Organization

Acknowledging that the hearing was conducted in an orderly manner and allowed for free expression from those assembled, I came away feeling that the meeting was "front loaded". Those promoting the "enhancement" spoke first, laid the groundwork, and created an emotional environment which left little room for diverse opinions. There seemed to be a polarity wherein anyone opposed to the enhancement, en toto, was against PMRF and not supportive of economic growth on Kauai.. For example:

- A large tarpaulin covered area in a field across from the meeting hall was identified for Friends of PMRF (sponsored by the Navy League, I believe). Free hot dogs, drinks, and cookies were provided. Petitions were provided for those in attendance to sign, signifying their support of PMRF.
- The hearing began with a statement and rather lengthy prayer by Bishop Tom Takehashi from Ni'ihau. His political statement and his prayer focused on accepting the PMRF proposal, in effect saying that God was giving his blessing to the proposal as written.
- While ground rules for the hearing were that each speaker had a maximum of five minutes, Captain Bowlin, the PMRF commander and first speaker, spoke for twenty minutes.
- Elected public officials spoke next. Five officials, all favoring the proposal, included Mayor Maryanne Kusaka, Councilman Ron Kouchi, Patrick Alvarez speaking for Congressman Abercrombie, Councilman Bryan Baptiste, and Councilman James Takioka.
- All "up front" speakers spoke in generalities about the benefits Kauai derives from PMRF, such as money, jobs, and help during natural disasters. They all focused on PMRF being a friend. I heard no facts or figures about the benefits versus any negative implications of the PMRF "enhancement"

Heartfelt Concerns

A. The Hawaiian Paradise

As a relatively newcomer to Kauai, I am rather reluctant to espouse views contrary to what I perceive to be those of individuals who have lived here much longer than I, and certainly those of native Hawaiians. At the same time, I am aware that many plant and animal species worldwide are vanishing at an alarming rate. The cause of this demise is largely human intervention. You are probably aware of the following, but I feel a need to recap it here:

- The islands of Hawaii include just two tenths of one percent of the U.S. land area. Yet, three quarters of the nations extinct plants and animals once lived in Hawaii.
- More than a third of the 526 plants and 88 birds on the U.S. endangered and threatened species list come from Hawaii.
- Because of their remoteness, the Hawaiian islands are more vulnerable to ecological invasion than any other land masses.

B. Tern Island

Tern Island, one of the proposed missile launching sites for PMRF under the "enhancement", is a wildlife refuge. It has served as a permanent field station for the U.S. Fish and Wildlife Service since 1979 and provides an essential base for monitoring all islands in French Frigate Shoals.

- Endangered species, such as the monk seal, green sea turtle, and various bird species are resident to Tern Island.
- Human activities cause or contribute to the decreased survival and productivity of these species and to the degradation and destruction of their habitat which is critical to their survival
- Landing strips and aircraft landing, as well as missile launching, can negatively effect the breeding and nesting habitat for birds and animals, including endangered species.
- The Navy has acknowledged that there would be some impact to these animal species. Words like "*some*", "minimal", or "no significant effect" can, in reality, cover some very undesirable results, especially coming from a study which has a desired result to those preparing it.

C. Johnston Atoll

Johnston Atoll, a second site for the PMRF enhancement, is also a preserve. As the only shallow water and dry land area in millions of square miles of ocean, Johnston is an oasis for reef and bird life.

Two unique forms of marine life found at Johnston Atoll, protected under Federal laws controlling threatened and endangered species, are the green sea turtle and the Hawaiian monk seal. . Both are highly vulnerable to human predation and disturbance.

Another animal to be considered is coral. Corals and coralline algae are responsible for the existence of the atoll. Corals are real animals. The colonies of algae contained in their tissues contribute to the photosynthetic production of the coral, receiving in return secure space in the sun and the coral's wastes as nutrients.

D. Ni'ihau

While I also have concerns about wildlife habitat in Ni'ihau, the residents of Ni'ihau have spoken. They seem to overwhelmingly favor the PMRF enhancement as it relates to their island. I assume they have been presented with pertinent facts and, therefore, do not question their wisdom.

Conclusion

The Navy and, specifically the PMRF facility, in Kauai are considered good neighbors and are well thought of and highly respected by island residents. Benefits to the economy and to the security of Hawaii and the free world are major reasons for these feelings. I share these feelings and support a responsible military presence in Hawaii as well as various sensitive spots throughout the world. Within this context, I am a supporter and friend of PMRF.

But, I am opposed to the "enhancement" in its present form due to the potential negative effects on environmentally sensitive areas. Protection of the free world does not depend on this disruption and possibly destruction of plant and animal life.

Sincerely

Jack Williams

John K. (Jack) Williams
P.O. Box 3016
Lihue, HI 96766-6016

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0976
23 OCT 1998

Mr. Jack Williams
PO Box 3016
Lihue, Kauai, HI 96766-6016

Dear Mr. Williams:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement (EIS). Our country was built on the idea that we all should be able to express our views and be heard.

The public hearing was conducted following normal, well established procedures. The U.S. Navy has no control over the methods or tactics of supporters or detractors of the proposed action.

In terms of your heartfelt concerns about biological resources found in Hawaii, on Tern Island, Johnston Atoll and in Niihau, the potential for adverse impacts to flora and fauna, including Threatened and Endangered Species is addressed in the Biological Resources sections of Chapter 4.

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

As to threatened and endangered species such as the monk seal and green sea turtle, we are in consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service under the Endangered Species Act as indicated in Appendix K.

The Congress of the United States has determined that we need to have effective defenses for our armed forces and allies against missile attacks, like the ones that killed many of our young men in Saudi Arabia during the Gulf War. Congress has also recognized that PMRF provides an ideal setting to test these systems because of its established technical infrastructure and the wide ocean expanse to conduct the actual intercept tests.

The leaders of our country must make many difficult decisions concerning how and where to conduct activities that will provide us with a strong defense. PMRF already conducts many testing functions vital to our national defense. The EIS is analyzing the environmental impacts of enhancing its capabilities to perform testing of missile systems to protect our armed forces and allies. Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0248

P-W-0251

9-360

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

Yvonne E. Shipman-LaBarge

Enough is enough! This will not go unnoticed. The oceans are already being depleted of resources which sustain the ~~dwindling~~ lives of many creatures. The military's record of pollution is atrocious. These islands of refuge do not need added burdens, disturbances and deafening blasts.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0978
23 OCT 1998

Ms. Yvonne E. Shipman-LaBarge
95 Hockanum Road
Hadley, MA 01035

Dear Ms. Shipman-LaBarge:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0251

P-W-0252

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

M Bechar

Magda Bechar
505 Daniel Shays Hwy
Belchertown, MA 01007

9-361

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0979
23 OCT 1998

Ms. Magda Bechar
505 Daniel Shays Highway
Belchertown, MA 01007

Dear Ms. Bechar:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0252

P-W-0253

9-362

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

Ronald Nester

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0980
23 OCT 1998

Mr. Ronald Nester
64 North Maple Street
Hadley, MA 01035

Dear Mr. Nester:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0253

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

Anne G. Cann

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0981
23 OCT 1998

Ms. Anne Cann
181 Mill Lane
Amherst, MA 01002

Dear Ms. Cann:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0254

9-364

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

Janet Ortiz

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0982
23 OCT 1998

Janet Ortiz
536 Market Hill Road
Amherst, MA 01002-1246

Dear Ms. Ortiz:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0256

P-W-0257

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,
Harvey D Allen

9-365

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0983
23 OCT 1998

Mr. Harvey D. Allen
979 South East Street
Amherst, MA 01002

Dear Mr. Allen:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0257

P-W-0258

9-366

12 Merrill Drive
Shutesbury, MA 01072

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

Allison C. Nairn
Ian McIntosh

ALLISON NAIRN
IAN MCINTOSH

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0984
23 OCT 1998

Ms. Allison Nairn
Mr. Ian McIntosh
12 Merrill Drive
Shutesbury, MA 01072

Dear Ms. Nairn and Mr. McIntosh:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0258

P-W-0260

Joanne M. Parker
Robert T. Wilce
34 Wildwood Lane
Amherst, MA 01002

May 12, 1998

Vida Mossman
Pacific Missile Range Facility
PO Box 128
Kekaha, Kuauai, Hawaii 96752-0128

Dear Sir:

Please oppose the proposed use of National Wildlife Refuge lands as launching or testing sites for Theater Defense Missiles. This is a completely inappropriate use of our federal lands, as is clearly shown in the National Wildlife Refuge System Improvement Act of 1997. Only activities that put wildlife first and are related to management and protection of wildlife should occur on wildlife refuges.

Using our refuges as defense sites are unacceptable, and your agency has the responsibility to publicly oppose and fight such proposals.

In the Draft EIS (April 3, 1998), no effects of support missions (i.e., flights to and from the proposed sites, or ship traffic to and from the proposed sites) are factored into the analysis of impact on the threatened and endangered species. The DEIS states that 4 launches per year will have no impact, but do not take into account the numerous support missions needed to carry out the launch.

Thank you for your time.

Sincerely,

Joanne Parker
Robert T Wilce

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0986
23 OCT 1998

Ms. Joanne Parker
Mr. Robert Wilce
34 Wildwood Lane
Amherst MA 01002

Dear Ms. Parker and Mr. Wilce:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0260

P-W-0261

9-368

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

Dr. Leland R Benedetti

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0987
23 OCT 1998

Dr. Leland Benedetti
PO Box 310
Athol, MA 01331

Dear Dr. Benedetti:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0261

16 May 1998

TO: U.S. Navy -Contact: Vida Mossman
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Kauai, HAWAII 96752

FROM: Bonnie Bator and Family
P.O. Box 565
Kurtistown, HAWAII 96760

RE: Ser 7080/0305 (dEIS)
The joint Sate of Hawaii and U.S.Navy draft Environmental Impact Statement for the Theater Ballistic Missile Defense & Department of Defense Theater Missile Defense program.

We are opposed to the existence of, and the proposed expansion for, the Pacific Missle Range Facility Expansion. We are opposed to the increasing global militarization and request that the U.S. military sponsor programs in which the military helps communities. The military can do more for national security, when it supports humane endeavors which maintain peaceful pro-life principles. The world has been caught surprised by India's nuclear tests and asks Pakistan to stop its plans to also test -(just to show that they are the better of the two.) Now, let's implement U.S. military policy which is non-nuclear, and end all weapons production. Here are some indicators of the alternative value of the area proposed for the PMRF expansion.

The Albatross Project was shown to have received a $200,000 grant from the National Science Foundation in a March 29, 1998 article of the Hawaii Tribune-Herald, "As part of the project, more than 1,000 schoolchildren are avidly tracking the birds with the help of microprocessors and satellites...'One Laysan albatross flew more than 2,000 miles to...a small island in the Aleutians, flew back to Tern Island, stayed over a day, then flew straight back to the same Aleutian island.'"

The March 28, 1998 Honolulu Advertiser featured an article on Tern island which found that, "For years, scientists have been struggling with an ornithological puzzle: Where do big marine birds go when they leave their newly hatched nestlings on isolated Pacific islands and vanish for weeks at a time?... Now, sophisticated tracking devices have allowed researchers to track birds from tiny Tern Island in the Northwest Hawaiian Islands to San Francisco, 2,600 miles away. Other birds have been tracked to Alaska."

The dEIS on page es - 7, **Tern Island** states, "Terrestrial and marine biological resources at Tern Island may experience impacts resulting from the Proposed Action." The existing endangered Hawaiian marine life that lives in the PMRF area is already at risk and needs protection, not further risks of more negative impacts. The U.S. Navy and the State of Hawaii has no planned restoration for the endangered Hawaiian Monk Seal (*Monachus schauinslandi*) that which barely survived the virtual extinction of the foreign seal trade of the 1800's. Also, no respect is shown for the rights of the Albatross as to its right to exist and, the other seabirds which inhabit Tern Island and the other Northwest Hawaiian Islands.

The same need for protection of endangered Hawaiian animals and marine life and habitats exists beyond Tern island. For example, an April 8, 1998 Honolulu Advertiser article stated that, "Midway Atoll [which] provides vital habitat for more than a dozen species of seabirds as well as the endangered Hawaiian monk seal, sea turtles and spinner dolphins."

The entire Hawaiian Islands should be a nuclear free Wildlife Refuge, a neutral zone, like Switzerland, in the middle of the Pacific. Hawaii's unique and precious location and environment should be preserved in its purest, life giving, form NOW, before the increasing global militarization and industrialization trends destroy the clean air, water, lands, and oceans that we enjoy today. Already there is a drop in global fish production, ocean cleanliness, and ozone depletion problems. We have been given a gift of life and we should not pollute and destroy it.

This unique Pacific island environment is an extremely poor choice to locate these rocket launch sites, added radars, liquid fuel and rocket engine storage areas and tracking capabilities. The toxic exhaust fumes with the destructive pollution generated from the construction of this ill conceived proposal is an abomination. The proliferation of the toxic seaweed that breeds ciguatera, which renders shoreline fish inedible, will affect the Niihau residents' ability to sustain themselves from their "ice box"-- the natural abundance of the sea.

Will The Navy hire a consultant to deal with the Niihau people's post traumatic stress syndrome when their fish is unfit to eat and when the horrible symptoms of ciguatera set in? The **long term effects** of Acid Rain caused by the proposed multiple rocket launches will destroy the sustainability and productivity of our precious agriculture lands and aquifers. These negative impacts do not warrant a need for expansion of missile reproduction. The Cold War is over, the USSR has collapsed. The war on hunger and homelessness must be won, <u>especially</u> the battle of the plight of "Houseless Hawaiians" living in their own homeland.

Dr. Martin Luther King said that "the choice is not between non-violence and violence but between non-violence and extinction". Already, too many military installations are located in Hawaii Nei. No more moku (islands) beyond beautiful Kauai must be desecrated; sacrificed upon the altar of "jobs" that have at their end ----- death. It is genocide against a people's culture when they are never supported in their natural sustainable economics and are only given big money, quick-cash "deals" for a short term, pollutive and dangerous industry. Hawaii Nei is sacred, each moku (island) a precious jewel, she is not to be used to foster death and destruction, but rather, everlasting, abundant life.

Please, search the depths of your soul, find the means to promote "jobs" of life instead of death. Use the land, with assistance from the military, to develop indigenous sustainable community programs. A combination of nursery, preschool and care giving and support for the elders. The added benefit would be that the elders could share their treasure-trove of life long knowledge and wisdom.

"Peace which passeth all understanding" -----Bible
"Liberty in tranquillity" ---Cicero

Please, in the plea for the future existence of the human species, let the U.S. Navy choose to perpetuate the proliferation of the essence of humanity, instead of death and toxicity.

Thanks for the opportunity to comment and for true attention to this grave subject.

Sincerely,

Bonnie Bator

9-370

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0988
23 OCT 1998

Ms. Bonnie Bator
PO Box 565
Kurtistown, HI 96760

Dear Ms. Bator:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

As to threatened and endangered species such as the monk seal and green sea turtle, we are in consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service under the Endangered Species Act as indicated in Appendix K.

None of the Navy activities proposed to be conducted at Niihau would increase the presence of ciguatera, since there would be no disturbance of the coral reef. Additionally, launches of the size missile proposed would not contribute to acid rain.

The Congress of the United States has determined that we need to have effective defenses for our armed forces and allies against missile attacks, like the ones that killed many of our young men in Saudi Arabia during the Gulf War. Congress has also recognized that PMRF provides an ideal setting to test these systems because of its established technical infrastructure and the wide ocean expanse to conduct the actual intercept tests.

The leaders of our country must make many difficult decisions concerning how and where to conduct activities that will provide us with a strong defense. PMRF already conducts many testing functions vital to our national defense. The EIS is analyzing the environmental impacts of enhancing its capabilities to perform testing of missile systems to protect our armed forces and allies.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0262

P-W-0263

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

Anne Lombard
Northampton MA
former Hawaii resident

9-371

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0989
23 OCT 1998

Ms. Anne Lombard
26 Washington Avenue
Northampton, MA 01060-2823

Dear Ms. Lombard:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0263

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

Penny Beebe

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0990
23 OCT 1998

Ms. Penny Beebe
391 Old Farm Road
Amherst, MA 01002

Dear Ms. Beebe:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0264

P-W-0266

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

Merrilyn B. Cushing
454 Bay Rd.
Amherst, MA
01002

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0992
23 OCT 1998

Ms. Merrilyn B. Cushing
454 Bay Road
Amherst, MA 01002

Dear Ms. Cushing:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0266

9-373

P-W-0267

9-374

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,
Allan & Judy Richards

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0993
23 OCT 1998

Mr. and Mrs. Alan Richards
7 South Main Street
Sunderland, MA 01375

Dear Mr. and Mrs. Richards:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0267

P-W-0268

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

Sara Hills
12 Meadowbrook Dr.
Hadley, MA 01035

a member of Hampshire Bird Club
Amherst, MA 01002

9-375

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0994
23 OCT 1998

Ms. Sara Hills
12 Meadowbrook Drive
Hadley, MA 01035

Dear Ms. Hills:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0268

P-W-0269

9-376

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

Sarah A Venman

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0995
23 OCT 1998

Ms. Sarah Venman
43 Ridgecrest Road
Amherst, MA 01002

Dear Ms. Venman:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0269

P-W-0270

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely, Edith C Minear

EDITH C MINEAR
191 ROLLING RIDGE RD
AMHERST, MA 01002

9-377

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0996
23 OCT 1998

Ms. Edith C. Minear
191 Rolling Ridge Road
Amherst, MA 01002

Dear Ms. Minear:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0270

15 May 1998

P-W-0271

9-378

Here are additional comments on the Pacific Missile Range Facility (PMRF) Enhanced Capability Draft Environmental Impact Statement (DEIS). These comments are related to the lead contamination due to Vandal launches (see comments 13 and 15 in my letter dated 3 May) and are based on my review of the PMRF Environmental Baseline Study dated January 1996. This document is one of those I requested; it arrived at UH Hamilton Library on 14 May.

The baseline study has useful information about lead releases from Vandal launches in 1994 that should be included in the final EIS. In particular, the final EIS should note that the high lead levels observed in the soil samples taken in July 1994 are primarily due to the Vandal launch failure on 8 July. According to the Soil Contamination Report in Appendix E of the baseline study, the 8 July launch failed at the launch pad. The solid propellant separated from its casing and was propelled backward; it landed in the sand about 85 feet from the pad and burned out there. The missile was propelled forward and landed about 100 feet from the pad. The lead level in the soil sample taken where the propellant hit was 190 mg/kg. The lead levels in nearby samples taken 50 feet from the pad ranged from 760 to 980 mg/kg. This information and the map showing where samples were taken (Figure 2 in the report in Appendix E) should be included in the final EIS.

The final EIS should also note that the lead levels at the two sites behind the pad exceed the U.S. EPA Preliminary Remediation Goal of 500 mg/kg as well as the State of Hawaii Dept. of Health cleanup goal of 400 mg/kg. It should address what remediation measures have been taken and indicate what subsequent soil sampling has been done since July 1994. It should give results of consultations with the Hawaii Dept. of Health and the U.S. EPA about this lead contamination.

Finally, footnote 1 on page 2 of the Soil Contamination Report in Appendix E contains incorrect and misleading information about the amount of lead emitted by the AES coal-fired power plant on Oahu. I enclose a copy of the cited Honolulu Star-Bulletin article and the correction to it which was published five days later. The correction states that the AES plant emits 28 pounds of lead per year, not 44,000 pounds per year as stated in the original article. Therefore, a single Vandal launch emits the same amount of lead as the AES plant operating for 20 months.

The information in the baseline study illustrates why it is important that documents referenced in the PMRF DEIS be available for public review in Hawaii. So far only two of the 15 documents I requested are available I suggest that the public comment period be extended until 30 days after all documents requested in comments on the DEIS are available.

Michael Jones
Dept. of Physics & Astronomy
Univ. of Hawaii
2505 Correa Road
Honolulu, Hawaii 96822

Physicist: Rockets drop lead on Kauai

☐ The UH official says each launch dumps 45 pounds of the pollutant into the air

By Peter Wagner
Star-Bulletin

A University of Hawaii physicist says Vandal rockets launched on Kauai are dumping 45 pounds of lead into the air each time they blast off — a form of pollution under heavy regulation in the civilian sector.

"I think it's fairly well established that once lead gets into the food chain it has bad effects," said Michael Jones of the university's High Energy Physics Group. "My biggest fear is it could get into the air people on West Kauai breathe."

Given the 24 launches that have taken place since the program began in 1989 and the 72 planned in the next nine years, a total of 4,320 pounds of lead would be released into the sky by the year 2002.

> "My biggest fear is it could get into the air people on West Kauai breathe."
>
> Michael Jones
> University of Hawaii physicist

Jones fears the toxic metal will end up on West Kauai food crops and in nearby waters.

But state and federal authorities say the rockets, smaller than the controversial "STARS" Polaris missiles also launched at the Pacific Missile Range Facility, pose little threat.

Compared with industrial polluters — the AES coal-fired power plant at Oahu's Campbell Industrial Park puts out about 44,000 pounds of lead a year — Vandal emissions are small, they say.

"I can't say there isn't any significant exposure from these rocket launches, but they are relatively insignificant compared to other sources," said Bruce Anderson, deputy health director.

Pumping lead into the air at the rate of about 5 pounds an hour, the plant emits nearly three times as much lead as a single rocket every day.

Of far greater concern, Anderson said, is the lead-based paint still found in some homes, and

See LEAD, Page A-6

Monday, September 20, 1993 ■ Star-Bulletin

LEAD: Rockets may be leaving it over Kauai

Continued from Page A-1

the cleanup of contaminated soil, such as an old industrial site recently found in Kalihi where children have been found with high levels of lead in their blood.

Even at low levels in the body, lead can cause brain damage, kidney problems and other ill effects.

Now banned in gasoline, lead once came out of car exhaust at such a high rate that Oahu roadways — notably Ala Moana Boulevard — still show high levels of the metal in the ground. The toxic legacy is expected to remain for decades because lead does not easily break down.

Jones, a long-standing opponent of the Army's Strategic Target System program — known as "STARS" — acknowledges the rockets don't themselves pose a major threat. But like other smaller sources of contamination, he said, they contribute to the whole.

"You have to look at all lead emissions, not just the largest ones," he said.

Vandal, not to be confused with the Army's controversial STARS program that began with the launch of one Polaris missile in February and another last month, is a smaller rocket used by the Navy to simulate an enemy cruise missile.

The Vandals are fired as low-flying targets in surface-to-air exercises northwest of Kauai.

According to base officials, 24 Vandals have been launched since 1989 at the Kauai Test Facility, part of the Pacific Missile Range Facility at Barking Sands. And up to 10 launches per year are planned in the next three years, they say.

But a draft environmental impact statement now under review dealing with both STARS and Vandal says 72 Vandal launches are planned in the next nine years.

The document also changes an earlier Army estimate of 40 STARS launches in the next 10 years to 11 in the next nine years.

Jones said the Vandal's 1,200-pound fuel load contains about 45 pounds of lead. He said he made the calculation based on data in a July 1992 environmental assessment by the U.S. Department of Energy.

Robert Inouye, the Navy's environmental engineer on Kauai, says the lead is dispersed over a three-mile area and doesn't pose a problem.

"Only a limited number is being launched," he said. "I don't think the cumulative effect is that big."

Lead levels in air, ground and water have steadily dropped in the United States since the federal Clean Air Act imposed restrictions on refineries and other industries in the early 1970s.

Federal money for highway construction and sewage treatment plant construction was to be withheld unless states met federal air quality standards for lead and five other pollutants.

And the Environmental Protection Agency in 1985 told refiners to take 90 percent of the lead out of gasoline by the end of that year.

Jones, who believes long-range nuclear weapons should be scrapped, has also raised concerns about ozone-damaging halons released by the bigger Polaris missiles.

Federal and state environmental regulators dismiss that concern as well, saying emissions are be small compared with chlorofluorocarbons in the atmosphere from other sources, including car air conditioners.

But Jones says all pollution is not equal. The need for electrical power or automobiles can't be compared with military weapons of war, he said.

"It's a difficult question. What has to be asked is is the benefit provided worth the cost?"

CORRECTION 9/25/93

In a Monday story on lead emissions, the Star-Bulletin incorrectly reported that the AES coal-fired power plant at Campbell Industrial Park puts lead into the air at a rate of 44,000 pounds a year. The private plant in fact emits about 28 pounds of lead a year, company officials say. Under its state Health Department permit, the plant is allowed nearly 50,000 pounds of lead emissions a year.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0997
23 OCT 1998

Mr. Michael Jones
Department of Physics and Astronomy
University of Hawaii
2505 Correa Road
Honolulu, HI 96822

Dear Mr. Jones:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

The Soil Contamination Report also indicates that all of the samples were well below the U.S. Environmental Protection Agency remediation and State of Hawaii cleanup goals for commercial or industrial use property. The public is restricted from this area and therefore are not exposed to the soil. U.S. Navy workers wear coveralls to prevent transferring any dust beyond the work site. Because this property is part of an active Federal installation, remediation is not yet required. There has been no indication that any contaminants have been found off-base that significantly threatens public health.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0271

9-379

P-W-0272

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

Mary B Riley

MARY B RILEY
12 SUTTON CT
AMHERST, MA
01002

9-380

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0998
23 OCT 1998

Ms. Mary B. Riley
12 Sutton Court
Amherst, MA 01002

Dear Ms. Riley:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0272

P-W-0273

Comment Sheet

for the
Pacific Missile Range Facility (PMRF)
Enhanced Capability
Environmental Impact Statement (EIS)

Thank you for attending this meeting. You may use this sheet to write down comments that you have regarding the EIS. Please submit your comments by May 26, 1998 to ensure they are considered in the Final EIS.

Please see attached letter.

Please place form in the comment box or mail to:

- PMRF Public Affairs Office
  P. O. Box 128
  Kekaha, Hawaii 96752-0128

Name
Address

April 1998

Printed on recycled paper

PMRF Public Affairs Office
P. O. Box 128
Kekaha, HI 96752

Rebecca Himschoot
2721 Poipu Rd., #300
Koloa, HI 96756

May 17, 1998

To the Navy,

After waiting through five hours of testimony, most of which was unrelated to the DEIS in consideration, during your Kauai hearing on April 25th, I have opted to submit only the written testimony I had planned to offer that day.

In the FEIS the following points concerning the use of Tern Island must be addressed:

1. The proposed launch site and walkway are adjacent to and on top of primary nesting habitat for the small group of masked boobies which nest on Tern annually. While the masked boobies do nest at other sites on the island, the east end has traditionally been their preference. How will the Navy mitigate the needs of this seabird?
2. Sootie terns, as well as most other nesting seabirds, locate their chicks specifically through the chick's individual vocalizations. At the height of nesting, when the ground is literally wall-to-wall chicks, the parent must first visually locate the nest, and upon landing, must then recognize the "voice" of its chick. As so little is known about seabird auditory needs and performance, Tern Island hardly seems a good place to find out the effects of a sonic boom on the ears of these animals. Unless the risk of a sonic boom can be 100% ruled out, it is inappropriate, indeed impossible, to even consider "mitigating" this risk.
3. While none of the 18 species of seabirds which inhabit Tern Island is currently listed as threatened or endangered, many recent studies point to the likelihood that several of them are in decline, not the least of which is the beloved Laysan albatross. The fact is, much of the research needed to understand the natural history of these animals is being conducted at Tern and began only in 1979, when Tern finally evolved into the wildlife refuge it was designated to be in 1909. In addition, while some of the species are not listed on a federal register, many of them are in fact present in only very small numbers on Tern. This means an adverse effect on their local population could wipe them out, which is hardly a "mitigable" situation in the Northwest Hawaiian Islands. Some of these species cannot afford to lose their local numbers - each habitat lost is a critical habitat for these wide-ranging birds. While these islands all seem to teem with birds, it's critical to recognize these birds are landing on these tiny stretches of land from a several 1,000-mile range. These islands are the gathering point for all the seabirds of the North Pacific. How will the Navy guarantee the survival of the local populations of seabirds such as the Christmas shearwater and the Bonin petrel, found on Tern in very small numbers?
4. The breeding cycle of every species of animal using Tern Island results in only one month of the year that could even come into consideration for increased human activity. The monk seals pup from April until October, the turtles nest from May through September, and the various seabirds nest throughout the year, with the smallest number of chicks present in October. Seabirds are without question unable to raise a chick without two active parents, meaning any threat to breeding seabirds would have to be considered contradictory to the mission of a wildlife refuge. October remains, then, the only month in which the four yearly launches could be considered, and even then there is considerable risk to a number of animals which make French Frigate Shoals their home. Can the Navy guarantee all launches will take place in October?
5. Monk seals are only now returning to Tern Island after the abuses they endured when the island was used by the military and the Coast Guard, including German Shepherds which ran free. In fact, in recent years, there have been some monk seal births on Tern. French Frigate Shoals, however, the atoll in which Tern is only one of several small islands, is home to over 50% of breeding monk seals in Hawaii. A failed launch could easily endanger the other islands used by the seals for breeding, not to mention the risk of flushing seals into the water during a normal launch. Humans in the area are required to be in a safety vehicle. What provisions are being made for a failed launch and the safety of the animals in the area?
6. Beacause several species of seabirds and the threatened green sea turtle are active nocturnally, is there a guarantee that all launches will take place during daylight hours?
7. When a researcher acquires a permit to conduct research at Tern Island, he or she is restricted to only the minimum activities required to complete the research, and every aspect of the research is regulated. A change in plans must be authorized by a new permit. To whom will the Navy answer for their movements on Tern Island? If five personnel are originally required for the task, to whom must the Navy apply to increase that number to 10? Will the Navy be subject to the same strict controls researchers must abide by? Can the Navy give exact numbers for how many additional people will be necessary on Tern, how many flights they wish to operate, etc.?
8. Rare migratory shorebirds, such as the bristle-thighed curlew, make use of Tern during their annual movements. Can the Navy guarantee these shorebirds, which are unable to land on water, will have sufficient habitat to stop at Tern when needed?

Thank you for addressing these concerns. For the record, I am adamantly opposed to the use of any of the Northwest Islands for Navy research. The track record of human interfaces with these islands should be enough of a dismal history to avert any new human interventions in this fragile, and so very limited, ecosystem. If the USFWS allows this expansion to include Tern Island, it will not be because the threats to wildlife could be mitigated. It will be because the Navy will help to improve the aging seawall, provide more regular flights and assist with improving communications to the Northwest Hawaiian Islands.

I look forward to your response in the Final EIS, and to the decision in August.

Sincerely,

Rebecca J. Himschoot

9-382

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 0999
23 OCT 1998

Ms. Rebecca Himschoot
2721 Poipu Road #300
Koloa, HI 96756

Dear Ms. Himschoot:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement (EIS). Our country was built on the idea that we all should be able to express our views and be heard.

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

As to threatened and endangered species such as the monk seal and green sea turtle, we are in consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service under the Endangered Species Act as indicated in Appendix K.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain and maintain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0273

P-W-0275 22 May 1998

Here are additional comments on the Pacific Missile Range Facility (PMRF) Enhanced Capability Draft EIS (DEIS). These comments supplement those I submitted previously (3 May and 15 May) and are based primarily on review of the PMRF Enhanced Capability Coordinating Draft Siting Report dated 3 March 1997, which arrived at Hamilton Library at UH Manoa on 19 May. The final paragragh contains comments on the Range Commanders Council document "Common Risk Criteria for National Test Ranges," which was sent via FAX to Hamilton Library on 22 May. All 15 documents I requested are now in Hamilton Library. Because 13 of these documents have only been available since 19 May (and can only be examined in the library), it is not possible to do a detailed review of all of them by the 26 May deadline. Therefore I request that the deadline for comments on the DEIS be extended.

The Siting Report contains useful details about all launch sites considered within 4,000 kilometers of PMRF, including Midway Atoll, Kure Atoll, Wake Atoll, Kwajalein, 3 sites in Alaska, and Vandenberg Air Force Base in California. These sites are not mentioned in the DEIS because they are more than 1,200 kilometers from PMRF. They should be included in the final EIS to indicate what sites have been examined for possible tests of Navy theater-wide interceptors and the Army's THAAD interceptors, which would be launched from Niihau. The study in the Siting Report and other aspects of the theater-wide program mentioned in comment 26 of my 3 May comments conflict with the statement on page 2-46 of the DEIS that the theater-wide program "is not sufficiently developed at this point to evaluate in this document." The existing information seems sufficient to justify some examination of impacts of the theater-wide program in the final EIS.

Some target launch sites and test scenarios examined in the Siting Report have serious implications for compliance with the ABM-TMD Demarcation Agreements, which restrict the range of targets in TMD tests to less than 3,500 kilometers. Kwajalein, the 3 Alaska sites (Adak, Cold Bay, and Kodiak), and Vandenberg are all more than 3,500 km from PMRF. Wake Atoll is 3,498 km from PMRF. The Strategic Target System booster, which has a range capability exceeding 3,500 km, is given as a possible theater target for launch from Vandenberg to PMRF. The Siting Report does not address treaty compliance for targets with ranges exceeding 3,500 km but does contain a curious comment that Johnston Atoll's position (1,198 km from PMRF) is ideal for launching targets for TMD tests that would comply with the ABM Treaty.

The Siting Report contains a quantitative evaluation of the launch and instrumentation capabilities of the sites considered. There are a number of problems with this evaluation. First, there are numerical errors in the total scores for Midway, Kure, Wake, USAKA/KMR, Adak, Cold Bay, Kodiak, and Vandenberg AFB. These errors are due to subcategory 3.6 being excluded from the total for the cost (3.0) category. Consequently, the total scores for these sites are too low. For example, the correct total for theater target launches at Vandenberg AFB should be 475.9, which would give this site the highest score and would move PMRF to 2nd highest.

The more serious problem with the quantitative evaluation is that the weights given to the six different categories and some of the numerical values assigned seem to be so arbitrary and subjective that it is questionable how meaningful this evaluation is. For example, the safety (20%) and environmental impacts (15%) categories have a combined weight of only 35% compared to operational/technical performance (25%), constructibility (10%), cost (20%) and schedule risks (10%). Does the 35% accurately reflect the

weight given to safety and environmental impacts in the selection of launch sites?

Examples of questionable numerical values are illustrated by the values assigned in some categories for Niihau. A value of 12.8 out of 20 is assigned in the instrumentation cost subcategory. It is hard to believe that the value is reliable to this precision. The highest possible value (50) is assigned in the schedule category even though item 3 in the protocol for use of Niihau (DEIS Appendix G) seems to prohibit launches on Sundays. Finally, the ground hazard area component of the safety category is assigned the highest possible value (50) even though, as noted in the DEIS (page 3-140), the dry climate and kiawe vegetation give the potential for "very large fires" inside the ground hazard area on Niihau.

The total numerical values for instrumentation are also questionable. Table 7.3-5 of the Siting Report gives 459.2 for Vandenberg AFB, 458.4 for Kwajalein, and 458.2 for PMRF. After correcting the numerical errors, the Vandenberg AFB value becomes 479.2 and the Kwajalein value becomes 474.4. Based on these values, one could conclude that the instrumentation at PMRF was comparable to that at the other two sites. However, the 1994 Theater Missile Defense Extended Test Range EIS considered Kwajalein and Vandenberg AFB as test sites but excluded PMRF "because of the lack of the full range of land-based instrumentation sites to observe intercepts and inadequate land area for interceptor deployment or for placement of instrumentation that would have to be brought in from another range." These conflicting evaluations raise questions not only about the methodology but also about changes in instrumentation since 1994. Has instrumentation at PMRF been improved so much since 1994? If so, why were these capabilities of PMRF enhanced before the EIS analysis was done?

A comparative evaluation of launch sites might be useful in comparing the impacts of TMD tests at different test ranges. Such an evaluation would have to include the Eglin Gulf Test Range and Kwajalein Missile Range and would also need to evaluate target launches using ships and aircraft in addition to sites on land.

Finally, the fatality probabilities quoted on page 3-189 of the DEIS are only the individual risk criteria. The collective risk criteria (i.e. the expected number of fatalities in the general public as a whole) given in the Range Commanders Council document are larger. The collective risk criteria in this document are that the expected number of fatalities "shall not exceed" 0.00003 for any single mission and that the annual risk "should not exceed" 0.001 fatalities (i.e. one fatality in 1000 years). As I noted in comment 6 in my 3 May comments, the fact that one fatality occurred in 1988 suggests that the actual risk is considerably greater than the goal set in the risk criteria.

Michael Jones

Michael Jones
Dept. of Physics & Astronomy
Univ. of Hawaii
2505 Correa Road
Honolulu, Hawaii 96822

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1101
23 OCT 1998

Mr. Michael Jones
Department of Physics and Astronomy
University of Hawaii
2505 Correa Road
Honolulu, HI 96822

Dear Mr. Jones:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

1. Our schedule did not allow for extension of the May 26 deadline for comments. We have continued to consider any comments received and have responded to all comments on the Draft EIS as our publication schedule has permitted.

2. As stated on p. 2-46 of the Draft EIS, the Theater-Wide system is not sufficiently developed at this point to be evaluated in this document. Therefore, sites that would be considered for theater-wide system testing were not included in this document.

   The EIS, which was published after the draft Siting Report was prepared, describes the most up-to-date Navy policy on Area and Theater testing programs. In any case, however, all testing will be consistent with U.S. policy on treaty compliance.

3. The December 1988 incident is regrettable. The incident did occur within W-188, a warning area utilized for military training operations. However, the operation was not under the control of PMRF and it was not launched from KTF or any facilities at PMRF and therefore is not appropriately included in PMRF risk calculations.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0275

May 25, 1998

J.A. Bowlin
Captain, U.S. Navy
Commanding Officer
PMRF, PO Box 128
Kekeha, HI 96752-0128

Dear Captain Bowlin,

First, I would like to thank you and your staff for the hospitality shown to me and my friends last Wednesday as we toured PMRF at your invitation. The fact that I was not allowed to take pictures of anything at all within the Sandia Laboratory fence indicated not so much a concern for military safety from a potential enemy, as a concern over corporate secrecy from private citizens.

In this letter, I would like to submit my personal input and recommendations regarding PMRF Enhanced Capability of the draft EIS to be included into the final EIS.

After reading over the draft EIS and listening carefully to other input and dialogue from many members of this community, I have issues that need to be addressed in the final EIS that are serious and may not have solutions.

If the plan to build launch pads, runways and other capital "improvements" on planned sites, including Tern, Johnston and Ni`ihau islands goes forward, there will definitely be impact upon wildlife there. Two of these species that use these islands for procreation, the green sea turtle and the monk seal, are on the endangered species list. The proposed construction plans will definitely cause permanent harm and loss of life and habitat to these two animals, and be disruptive to all other wildlife as well. How will you comply with the Marine Mammals Protection Act?

According to biologists, I understand that the monk seal will haul out to have pups on beaches of these islands and the mother must remain with the pup until weaned. Noise and construction activities will no doubt scare the mother away and result in starvation for the pup. Construction of sea walls and other activities will disrupt egg-laying for the green sea turtle resulting in fewer successful hatches. After construction many turtles will get lost behind the sea wall and die.

Even if military funds can provide for permanent teams of biologists to remain on these islands year round to attempt to mitigate these disruptions, I am certain that some of these endangered species will die. Therefore, I request that the Final EIS include a plan of action to mitigate this deadly situation, and define how many deaths of these endangered species is considered acceptable by the U.S. military.

The "scoping" meetings in April, 1998, that I attended did not provide full information on the proposed PMRF expansion on many topics, including any treaties that may be involved. I would like to know if any Missile Treaties or other treaties exist related to the draft EIS plan of action. I understand that it may be against current international treaties to launch missiles from U.S. military ships. If so, what is the wording of these treaties and how will the U.S. comply so an international incident does not occur.

The public hearings that the military videotaped and placed on government access cable TV were not captioned for the hearing impaired and did not comply with the Americans with Disabilities Act. Kauai has a population of hearing impaired, none of whom had the benefit of receiving equal information during the input process.

The responses to my first two sets of comments (four in one letter and fourteen in another) that appeared in the draft EIS were inadequate. Therefore, I request that all of the comments I submitted earlier be re-addressed fully in the final EIS.

The cultural use assessment in the draft EIS did not include one cultural expert from Hawaii. Including cultural expertise from the culture one is studying is essential. The EIS would not be complete without this expertise. The list of contributors included only one cultural resource, Tirzo Gonzales from California. A broader team, including cultural and anthropology resources from within this state for cultural use assessment is strongly recommended or the final EIS may be deemed inadequate. Contact the University of Hawaii at Manoa and speak to the chair Hawaiian Studies, Haunani K. Trask, on a recommendation for cultural input on the topic of cultural use assessment. On Kauai, you may contact the chair of Hawaiian Studies, Dennis Chun, at Kauai Community College (808)245-8311.

Finally, I must comment on the fact that a goal of this PMRF enhancement to develop missile technology by defense contractors will inevitably escalate the sale of arms and weaponry. After spending millions of tax dollars to develop these weapons, assuming research results in real technological advances and not just a waste of tax resources, who will own this information? Other countries not friendly to the U.S., including mainland China and those in the mid-East, will pay well for this technology. The private defense contractors who may end up owning or controlling this information will sell to the highest bidder. U.S. soldiers will be facing this technology in a few years. Thus, American taxpayers will be forced to pay for the research that may ultimately kill their sons and daughters. Morally, this is wrong but financially, this is intolerable.

Any U.S. military man should refuse an order to kill his own men in battle, and also might refuse to participate in research that will inevitably be used against our own U.S. soldiers.

Again, who will own the information that is about to be researched by the PMRF enhanced capability? Will it be the U.S. or the contractors and sub-contractors? This is not a rhetorical question. Define with confidence how the United States can implement a plan to maintain control over this information and include the plan within the final EIS please.

Thank you for considering my input.

Sincerely,

Carol D. Bain

Carol D. Bain
PO Box 2320, Lihue, HI 96766

PS: Do not send me a copy of the final EIS. I will read it in the Lihue public library if you send me a notice of its delivery there.

9-385

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/1 1 0 4
2 3 OCT 1998

Ms. Carol D. Bain
PO Box 2320
Lihue, HI 96766

Dear Ms. Bain:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement (EIS). Our country was built on the idea that we all should be able to express our views and be heard.

1. Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

   The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

   As to threatened and endangered species such as the monk seal and green sea turtle, we are in consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service under the Endangered Species Act as indicated in Appendix K.

2. We will not implement any actions that are not in accordance with current U.S. policy on treaty compliance.

3. The public hearing was conducted following normal, well established procedures. We believe that all interested members of the public had adequate opportunity to learn about the proposed action and the EIS and make their comments.

4. I am sorry you believe that our answers to your earlier questions were inadequate. We answered them to the best of our ability, within the scope of the environmental analysis.

5. The "Guidelines for Assessing Cultural Impacts" states that cultural impact information can be obtained in a variety of ways. These include "scoping, community meetings, ethnographic interviews and oral histories." PMRF has conducted scoping and public hearings on both Kauai and Oahu. Further, informational meetings were held on Niihau with the residents. As recommended in the "Guidelines," these

procedures have been documented in the EIS along with the verbatim inputs we have received.

Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0278

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely, Isaiah Bechar



DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1106
23 OCT 1998

Mr. Isaiah Bechar
505 Daniel Shays Highway
Belchertown, MA 01007

Dear Mr. Bechar:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

In regards to marine life and endangered species, the U.S. Navy is consulting with the National Marine Fisheries Service and the U.S. Fish and Wildlife Service during the development of this EIS. The EIS details the effects on the environment of the No Action and Proposed Actions to the best of our abilities.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0280

9-387

P-W-0283

Fat Rooster Farm

FOR YOUR INFORMATION

To:	**vida mossman**
Company:	
Fax number:	+1 (808) 3354660
Business phone:	
From:	**Jennifer Lynn Megyesi**
Fax number:	+1 (802) 763-5282
Home phone:	
Business phone:	
Date & Time:	5/26/98 4:12:04 PM
Pages sent:	6
Re:	PMRF DEIS COMMENTS

May 26, 1998

I spoke with Peter McClaran who assured me that these comments would be accepted without signature. Hard copies with original signatures will follow.

Thank you. Jennifer Megyesi

Vida Mossman
Pacific Missile Range Facility (PMRF)
P. O. Box 128
Kekaho, HI 96752-0128

□□□□□□□May 21, 1998

□Comments on the Pacific Missile Range Facility (PMRF) Enhanced Capability
□Draft Environmental Impact Statement (DEIS)

□These comments are particular to the Proposed Alternative and how it will affect the Candidate Site of Tern Island, French Frigate Shoals, Hawaiian Islands National Wildlife Refuge. However, they are broad enough in nature to also pertain to activities proposed for Johnston Atoll and other sensitive, fragile, wildlife areas.

General Comments

□The DEIS continually states that the Director of the U. S. Fish and Wildlife Service (USFWS) must issue a finding of compatibility in order to carry out the Proposed Alternative on a National Wildlife Refuge. In a letter dated 23 June 1997 (pages 7-18, 7-19 of DEIS), the USFWS specifically asked that the PMRF should assess the potential impacts associated with 1) site preparation and installation of infrastructure; 2) actual program testing and training operations; 3) increased numbers of personnel; and 4) increased air, land and ship traffic. The DEIS vaguely addresses numbers 1, 2 and 4, and does not address number 3 at all. The USFWS also asked that the DEIS consider how introduction of alien species will be prevented; the DEIS gives no consideration to this concern. Lastly, the USFWS states that it would be unlikely that the Proposed Alternative would be found compatible with use of a National Wildlife Refuge, and the U. S. Navy publicly stated on 28 April 1998 that these refuges were "fall-back options." Why then, are these sites still being considered as part of the Proposed Alternative?
□The DEIS is much too vague and general in description of its potential impacts on Tern Island resulting from the Proposed Alternative. For example, in PMRF documents dated 10 January 1997, PMRF describes the need for 6-15 personnel stationed on-site for 1-3 weeks per launch (incidentally, these documents are not included in the appendices of the DEIS). Yet, the DEIS describes that only 2 hours (see 4.3.1.8.2.2 of DEIS) will be needed from existing USFWS staff to supervise/consult with PMRF personnel. Obviously 2 hours versus three weeks (the time apparently needed for preparation of each launch, and not the launch itself) would have significantly different impacts on the site and its staff, and the USFWS needs these specifics to make an accurate determination of compatibility of the Proposed Alternative.

Specific Impacts of the Proposed Alternative on the Candidate Site

□Table 2.5-3 states that no adverse impacts on Air Quality will occur. However, in a letter date 3 May 1998, Michael Jones describes emissions from STARS launches that exceed immediately dangerous levels to life and health. Also, exhaust gas concentrates exceed those acceptable by the guidelines of the State of Hawaii. Both situations clearly demonstrate adverse impacts on air quality, as well as potential health and safety hazards.
□In its determination of no adverse impact for Airspace (Table 2.5.3), the DEIS considers only other human air traffic and does not consider the effects of increased air traffic by the Proposed Alternative to flying seabirds on the island, of which over 500,000 are present during some periods of the year. PMRF crews of 6-15 personnel will require a minimum of 1- 4 flights each launch, if an aircraft similar to the one used by USFWS is used. If any larger aircraft is used it will increase the potential for bird strikes and threat to human health and safety from collision with birds and/or resulting plane crashes.
□Table 2.5.3 does not measure the effects of construction activities on seabirds in its assessment of impacts on Biological Resources; nor does it consider 1) the effect of a potential launch site on the east end of the island, where over 100 pairs of Great Frigatebirds as well as Red-footed and Masked Boobies nest, or 2) any contingencies for preventing entrapment of seabirds in fencing surrounding the launch pad. Though there may be just four launches, the fences presumably will remain surrounding the launch pads. Who will be responsible for patrolling these areas to prevent entrapments while PMRF personnel are not on site?
□Table 2.5.3 does not specify any adverse effects to the Threatened Green Sea Turtle, whose hatchlings are attracted to light, and may crawl toward the launch site instead of toward the ocean when hatching. The DEIS must specifically describe the activities scheduled by PMRF personnel in order for the USFWS to determine whether the Proposed Alternative is compatible.
□No potential impacts on seabirds are discussed pertaining to the construction of the launch pad discussed in 2.3.4.3.1.2, nor are potential impacts on seabirds discussed in relation to construction of the buried cable, running the entire length of the north side of the island. It is difficult to believe that 1) only 0.7 acres of habitat will be disturbed and 2) no nesting seabirds will be killed considering the scope of these construction activities, yet the DEIS does not mention this possibility.
□Table 2.5.3 does not consider potential adverse impacts on bird life, endangered Hawaiian Monk Seals and threatened Green Sea Turtles, in relation to launch logistical support transportation to and from the island. Instead, the DEIS discusses only those impacts related to actual launches.
□Table 2.5.3 does not consider logistical launch support missions to and from the site in its determination of no adverse impact on human Health and Safety.
□Table 2.5.3 does not consider the possibility of PMRF and USFWS activities conflicting with respect to Land Use. Currently, activities are heavily restricted to protect the fragile nature of Tern Island, and the number of non DOI personnel traveling to Tern Island for non-management purposes is highly regulated. The DEIS does not explain how the Proposed Alternative will avoid conflicting with scheduled activities of USFWS/NMFS personnel, nor does it describe consequences for PMRF personnel found in violation of the Refuge Manager's island restrictions.
□Table 2.5.3 does not describe who ascertained that Transportation to and from Tern Island/French Frigate Shoals would have a beneficial impact on the site, but it most certainly could not have been USFWS personnel. As stated in the DEIS (page 2-44), flights and cruises to and from Tern Island are highly restricted and are scheduled around breeding seasons of the hundreds of thousands of seabirds nesting there. There are not more frequent flights or cruises to the island because an increase in these activities would have potential adverse impacts on wildlife such as 1) potential for increased number of bird strikes; 2) potential for increased risk to human safety; 3) potential for toxic spills from seagoing vessels; 4) potential direct adverse impacts on habitat resulting from toxic spills in an area where over half of the remaining Endangered Hawaiian Monk Seals pup; 5) potential direct adverse impacts resulting from toxic spills on individual Endangered Hawaiian Monk Seals; 6) potential direct adverse impacts on the Threatened Green Sea Turtle nesting habitat resulting from toxic spills; 7) potential adverse impacts on habitat rich in marine life and essential for the hundreds of thousands of seabirds that fish the waters surrounding the site; 10) increased potential for infestation by exotic plants, insects, mammals, reptiles, etc.
□The difficulties associated with logistical support of the Tern Island field station

(i.e. scheduling flights, maintaining the correct amount of cargo weight on the flights, loading, shipping and in-flight contact by Refuge staff) will not be ameliorated by implementing the Proposed Alternative; they will only occur more frequently with more frequent visits to the island.

□Table 2.5.3 states that impacts to Visual Resources would not be adverse or out of character. However, the Proposed Alternative describes construction of a launch pad in the center of a Great Frigatebird and Red-footed Booby colony, which would most certainly be out of character. Additionally, the DEIS is incomplete in its assessment of the physical structures existing on the island. In fact, no new facilities have been constructed on the island since it was returned to the Department of the Interior in 1979. Every effort to reduce man-made debris has occurred however, and the Woodshop, two paint sheds, all NDB towers and the diesel tanks have been removed. Plans for removal of the Generator building are pending. It is not in the Tern Island Management Plan to increase the number of man-made structures, and any new construction by PMRF would impact Visual Resources by decreasing the available seabird nesting habitat already in existence.

□Table 2.5.3 does not consider potential adverse impacts to Water Resources with respect to the potential of diesel fuel, oil, or other toxic spills resulting from air or marine accidents.

□

Specific Comments on Section 3.3

□Page 3-156 is incomplete in its description of the history of the site. The Northwestern Hawaiian Islands were originally set aside in 1909 by President Theodore Roosevelt as bird refuges. They were then taken by DOD prior to WWII. During their occupation of Tern Island, all seabirds were killed and any new birds were harassed or killed and not allowed to nest anywhere on the island.

□3.3.1.3.1- incomplete. Potential impacts of the Proposed Alternative on travel corridors to and from the island by both aircraft and seagoing vessels must be considered in the Region of Influence section.

□3.3.2.3.2.2 - The Bristle-thighed Curlew is a rare species that winters at French Frigate Shoals and may be adversely impacted by the Proposed Alternative.

□There is no commercial fishing allowed within 50 miles of French Frigate Shoals, to protect feeding, nesting and/or pupping grounds of the wildlife found there.

□3.3.1.8.2.1 - Tern Island is unique in its ability to function as a field station for seabird, Monk Seal and Green Sea Turtle researchers. Though the refuge is not open to the public, several environmental organizations and media groups are scheduled to visit the island each year, so that the public can be informed of the importance of the refuge. In this way, the public has access to the refuge, via books, films, magazine articles and other documentaries. The potential impacts of the Proposed Alternative could destroy the appeal for these organizations to visit the island and then the connection with the general public will lost.

□3.3.1.12.2 - This section is outdated; the woodshop and diesel tanks have been removed, and the generator building is slated for removal.

□4.3.2.3.2.- Tern Island is also critical nesting habitat for 90% of the Threatened Hawaiian Green Sea Turtles.

□4.3.1.2.1 - There will most definitely be impacts resulting from the Proposed Action; half of the Great Frigatebird colony, one third of the Red-footed Booby colony, the majority of 2,500 pairs of Brown Noddies, most of the Bulwer's Petrels and Masked Boobies, approximately half of the 100,000 pairs of Sooty Terns, and all the migratory Wandering Tattlers nest within the designated Proposed Alternative site.

□This section does not specify limited use of aircraft.

□Potential for introduction of insects, plants, rats, snakes and other exotics which would impact French Frigate Shoals are not considered in this section.

□4.3.1.7.2 - The health and safety section does not adequately address the potential for bird strikes, nor does it consider the isolation of Tern Island and lack of emergency medical facilities. One trained medical technician is not adequate to provide medical attention for personnel associated with launches.

□4.3.1.8.2.1 - This section completely ignores launch logistical support missions which would undoubtedly require more than 30 minutes of refuge staff time. In a typical USFWS/NMFS flight, a total of 5 hours is needed to: 1) maintain radio contact with pilot in flight; 2) prepare runway for landings and take-offs, including grading, loafing bird removal, debris removal and emergency equipment preparation); 3) arrival and departure preparations of personnel.

□4.3.1.8.2.2 - The potential impacts on recreation account only for the launch time and do not consider logistical launch support missions including: 1) Oahu office logistical coordination with the field site; 2) Tern Island field station coordination.

□4.3.1.9.2 - Potential impacts from noise associated with the Proposed Alternative does not consider noise associated with logistical launch support missions required for each of the 4 launches.

□The final EIS should reflect these comments and remove plans to use Tern Island, Johnston Atoll, or any other wildlife refuge from the Proposed Alternative.

□□□□□Sincerely,

Jennifer Lynn Megyesi
RR1 Box 139E2
South Royalton, VT 05068

Sheila Conant, Ph. D.
Professor
Department of Zoology
University of Hawaii at Manoa
3663 Alani Drive
Honolulu, HI 96822

cc: □Sec. Bruce Babbit

9-390

☐Rep Patsy Mink
☐Bill Ashe
☐Jerry Leinecke

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1108
23 OCT 1998

Ms. Jennifer Lynn Megyesi
RR 1 Box 139E2
South Royalton VT 05068

Dear Ms. Megyesi:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

General Comments

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Specific Impacts

Table 2.5-3: The Strategic Target System Environmental Monitoring Program report for the 26 February 1993 launch of the Strategic Target System from PMRF analyzed pre- and post-launch air quality and confirmed there were no exceedances of guidance levels at any public exposure location. Likewise, as described in the Air Quality sections of the EIS, we believe that there will be no adverse effects on air quality as a result of the no action or proposed action alternatives.

All shipments to Tern would have been made by barges. No flights in addition to U.S. Fish and Wildlife Service (USFWS) scheduled flights would have occurred.

As to threatened and endangered species such as the monk seal and green sea turtle, we are in consultation with USFWS and the National Marine Fisheries Service under the Endangered Species Act as indicated in, Appendix K. Section 4.3.1.3.2.2 has been revised to discuss in greater detail the effects of lighting sources on the green sea turtle. With respect to Niihau, during operations involving beach landings, a Navy or Niihau Ranch representative will survey beach areas for nesting turtles or monk seals. In cases where monk seals, turtles, or turtle nests are observed, efforts would be made to divert to an alternative landing site.

Specific Comments on Section 3.3

We appreciate the information on the history of the Northwestern Hawaiian Islands.

Your comments on Section 3.3 are not specifically addressed here because Tern Island and Johnston Atoll have been removed as alternatives.

Let me assure you that we who have the privilege of working at PMRF want to do all we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0283

9-391

P-W-0285

Suzanne Marinelli

2335-A O'ahu Avenue
Honolulu, Hawai'i 96822

Telephone (808) 946-5712

May 26, 1998

Ms. Vida Mossman
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

Aloha, Vida.

I have some comments regarding the 'Pacific Missile Range Facility Enhanced Capability Draft Environmental Impact Statement' ('DEIS') dated April 3, 1998. Please share them with the appropriate people and agencies.

Your folks may consider some of my remarks to be "outside the scope of this document" (a phrase that appears with great regularity throughout your DEIS's response pages). But please think of them instead as *context* - background information that seems crucial to helping us understand the choices that you must make, and those that all of us are making every day.

I have concerns in a number of areas. Here are a few of them:

A) Citizen participation in the Environmental Impact Statement (EIS) process;
B) A problem I have with one of the ways your DEIS presents information;
C) One of many biological considerations;
D) Sociological ones;
E) Some problems with the proposed project/s' proposed execution and your related documentation;
F) Some economic factors; and
G) What's it really all about? And, since you asked, what is it that *I* really want?

A) CITIZEN PARTICIPATION IN THE EIS PROCESS

1. Please extend your review deadline beyond May 26, 1998. I know of several citizens who are still unable to examine numerous documents mentioned in your DEIS because they are nowhere to be found in Hawaii. As of May 22, the last regular work day before today's comment deadline, several referenced documents still were not available at the repository of record for Oahu - Hamilton Library at the University of Hawaii at Manoa. I refer you specifically to Professor Michael Jones' DEIS comments as well as those of the EarthJustice Legal Defense Fund, among others.

2. I felt your scoping process was ineffective, controlling, and counter-productive. You say your individual tables dealing with separate components of your proposed program were designed to make the information process friendlier and more interactive; in fact, it very cleverly eliminated opportunities for wider discussion. That was disappointing.

9-392

B) A PROBLEM I HAVE WITH ONE OF THE WAYS YOUR DEIS PRESENTS INFORMATION

The Executive Summary's "Summary of Environmental Impacts" (pp es 4-8) discusses four potential levels of impact from the proposed program - 1) No impact; 2) No Adverse Impact; 3) Adverse Impact; and 4) Beneficial Impact. A helpful chart (page es-5) shows a 'Summary of Potential Environmental Consequences' for fifteen separate resource types at fifteen separate locations, all of which are at least vaguely connected with your proposal. They cover both the 'no-action' alternative and the 'proposed action' alternative.

It's those 'No Adverse Impact' open triangles that bother me. They bother me because when you look at the summary, the blocked-out boxes, those dark black ones that indicate adverse impacts, only appear in 9 places; everything else looks better than benign. This program must be wonderful...

I thought a long time about the 'No Adverse Impact' open triangles - what does no adverse impact mean? According to your chart, it means: "An impact is predicted, but the impact does not meet the intensity or context criteria needed to trigger a regulatory requirement or impact the quality of the human or natural environment." So. We're really talking about '*incremental adverse impacts,*' aren't we?

When I was a child, my mother had a candle in a saucer up on the mantel. It was a nice tall candle that had been burned maybe once or twice. It was very tempting to an eight-year-old girl who knew where the matches were. Sometimes I'd sneak and light the candle, just for a moment. I loved watching it burn. But I'd blow it out quickly; I didn't want to get caught and get in trouble. I never burned that candle for more than a few seconds at a time.

One day my mother looked up on the mantel for something and found a little stump of a candle. Busted. There was hell to pay, of course.

I took a pen to your 'Incremental Adverse Impact' open triangles and filled them in. The attached document is the result. Take a good look. One hundred and forty-four dark, filled-in triangles indicate *'Incremental Adverse Impacts,'* between the no-action and the proposed-action columns. Actions have consequences. Candles burn.

2(A) - unmodified

Table ES-1: Summary of Potential Environmental Consequences

LOCATION	PMRF/ Main Base		Restrictive Easement (Ground Hazard Area)		Makaha Ridge		Kokee		Kamokala Magazines		Port Allen		Nihau		Kauia		Kaena Point		Maui Space Surveillance System		Wheeler Network Segment Control/PMRF		DOE Comm. Sites		Tern		Johnston Atoll		Ocean Area (Outside U.S. Territory)	
RESOURCE	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed
Air Quality	△	△	△	△	△	△	△	△	□	△	△	△	△	△	□	□	□	□	□	□	□	□	□	□	□	△	□	△	□	□
Airspace	△	△	□	□	□	□	□	□	□	□	□	□	□	■	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	△
Biological Resources	△	△	△	△	△	△	△	△	□	△	□	□	△	■	△	△	□	□	□	□	□	□	□	□	□	■	□	△	△	△
Cultural Resources	△	△	□	□	△	△	△	△	△	△	□	□	△	△	□	□	□	□	□	□	□	□	□	□	□	□	□	△	□	□
Geology and Soils	△	△	□	□	△	△	△	△	△	△	□	□	□	△	■[2]	■[2]	□	□	□	□	□	□	□	□	□	△	□	△	□	□
Hazardous Materials and Hazardous Waste	△	△	□	□	△	△	△	△	□	□	△	△	△	△	□	□	□	□	□	□	□	□	□	□	□	△	□	△	□	□
Health and Safety	△	△	□	□	△	△	△	△	△	△	△	△	△	△	△	△	□	□	□	□	□	□	□	□	□	△	□	△	□	△
Land Use	△	△	△	△	□	□	△	△	△	△	□	□	△	△	△	△	□	□	□	□	□	□	□	□	□	△	□	△	□	□
Noise	△	△	△	△	△	△	△	△	□	□	△	△	△	△	□	□	□	□	□	□	□	□	□	□	△	△	□	△	□	□
Socioeconomics	+	+	△	△	□	□	□	□	□	□	□	□	□	+	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
Transportation	□	△	△	△	□	□	□	□	□	□	□	△	□	+	□	□	□	□	□	□	□	□	□	□	□	+	□	△	□	□
Utilities	□	□	□	□	■[1]	■[1]	■[1]	■[1]	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	△	□	△	□	□
Visual and Aesthetics	△	△	□	□	△	△	△	△	□	△	□	□	△	△	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
Water Resources	△	△	□	□	□	□	△	△	△	△	□	□	□	△	□	□	□	□	□	□	□	□	□	□	□	△	□	△	□	□
Environmental Justice	△	△	△	△	□	□	□	□	□	□	□	□	△	△	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□

EXPLANATION

- □ **No Impact:** No impact is predicted.
- △ **No Adverse Impact:** An impact is predicted, but the impact does not meet the intensity or context criteria needed to trigger a regulatory requirement or impact the quality of the human or natural environment.
- ■ **Adverse Impact:** An impact is predicted that meets the intensity or context criteria necessary to trigger a regulatory requirement or impact the quality of the human or natural environment.
- \+ **Beneficial Impact:** An impact is predicted to have a beneficial effect on the quality of the human or natural environment.

Notes:

[1] Both on-going and proposed activities would continue to contribute to the existing water shortage until a new well is on-line within one to two years.

[2] Adverse impact due to permanent adverse soil and geologic effects from past ordnance explosions.

es-5

Table ES-1: Summary of Potential Environmental Consequences

LOCATION	PMRF/ Main Base		Restrictive Easement (Ground Hazard Area)		Makaha Ridge		Kokee		Kamokala Magazines		Port Allen		Niihau		Kauia		Kaena Point		Maui Space Surveillance System		Wheeler Network Segment Control/PMRF		DOE Comm. Sites		Tern		Johnston Atoll		Ocean Area (Outside U.S. Territory)	
RESOURCE	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed
Air Quality	▲	▲	▲	▲	▲	▲	▲	▲	□	▲	▲	▲	▲	▲	□	□	□	□	□	□	□	□	□	□	□	▲	□	▲	□	□
Airspace	▲	▲	□	□	□	□	□	□	□	□	□	□	□	■	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	▲
Biological Resources	▲	▲	▲	▲	▲	▲	▲	▲	□	▲	□	□	▲	■	▲	▲	□	□	□	□	□	□	□	□	□	■	□	▲	▲	▲
Cultural Resources	▲	▲	□	□	▲	▲	▲	▲	▲	▲	□	□	▲	▲	□	□	□	□	□	□	□	□	□	□	□	□	□	▲	□	□
Geology and Soils	▲	▲	□	□	▲	▲	▲	▲	▲	▲	□	□	□	▲	■[2]	■[2]	□	□	□	□	□	□	□	□	□	▲	□	▲	□	□
Hazardous Materials and Hazardous Waste	▲	▲	□	□	▲	▲	▲	▲	□	□	▲	▲	▲	▲	□	□	□	□	□	□	□	□	□	□	□	▲	□	▲	□	□
Health and Safety	▲	▲	□	□	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	□	□	□	□	□	□	□	□	□	▲	□	▲	□	▲
Land Use	▲	▲	▲	▲	□	□	▲	▲	▲	▲	□	□	▲	▲	▲	▲	□	□	□	□	□	□	□	□	□	▲	□	▲	□	□
Noise	▲	▲	▲	▲	▲	▲	▲	▲	□	□	▲	▲	▲	▲	□	□	□	□	□	□	□	□	□	□	▲	▲	□	▲	□	□
Socioeconomics[2]	+	+	▲	▲	□	□	□	□	□	□	□	□	□	+	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
Transportation	□	▲	▲	▲	□	□	□	□	□	□	□	▲	□	+	□	□	□	□	□	□	□	□	□	□	□	+	□	▲	□	□
Utilities	□	□	□	□	■[1]	■[1]	■[1]	■[1]	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	▲	□	▲	□	□
Visual and Aesthetics	▲	▲	□	□	▲	▲	▲	▲	□	▲	□	□	▲	▲	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
Water Resources	▲	▲	□	□	□	□	▲	▲	▲	▲	□	□	□	▲	□	□	□	□	□	□	□	□	□	□	□	▲	□	▲	□	□
Environmental Justice	▲	▲	▲	▲	□	□	□	□	□	□	□	□	▲	▲	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□

EXPLANATION

- □ **No Impact:** No impact is predicted.
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Notes:

[1] Both on-going and proposed activities would continue to contribute to the existing water shortage until a new well is on-line within one to two years.

[2] Adverse impact due to permanent adverse soil and geologic effects from past ordnance explosions.

2(B) - modified

es-5

est

9-393

C) A BIOLOGICAL CONSIDERATION

About a decade ago a man on Kauai was jailed for killing a monk seal for food. He was punished for committing a grievous act. Destruction of individual members of any endangered species is against federal and state law - unless the perpetrator is...who? Please allow me to quote from page 4-167 of Vol. 1 of the DEIS:

> Launch noise could impact Hawaiian monk seals by startling them and causing them to flee into the water. This could injure pups, and put adults, pups, and juveniles at risk to shark predation. The effects of noise on monk seals hauled out on islands downrange but within the area affected by sonic booms can be expected to be similar to that near the launch site. *The potential effects of noise on the population at Tern Island could result in high magnitude impacts on the monk seal. However, with the limited number of launch events (four per year) and the short term nature of the events, the species is not expected to be jeopardized.* (Italics and underlining are mine.)

Numerous similar quotes relating to several other species appear throughout your document. I won't be duplicative by detailing them.

Death is not mitigable, even when a few more members of a particular species still exist.

Please allow me also to quote from an article, "Tern Island visit topic of lecture" by Anthony Sommer in the April 21, 1998 Garden Island newspaper: In the article Ms. Rebecca Himschoot describes the Fish and Wildlife Service's (FWS) constraints on human activity at Tern:

> The FWS treats the monk seals that come ashore...with great care. "You aren't even allowed to photograph them, If seals or turtles are on the beach you just don't go on the beach.
>
> "The place where they want to build the launcher is where hundreds of masked boobies nest. There's no way to construct anything out there without being in a critical time period for some species." Even using the floating launch platform anywhere in the area would endanger the seals because the sonic booms would scare pups into the water. "Those seals won't sit still for a sonic boom," she noted.

Would you? Would any nursing mammal, or any other creature?

D) EXAMINATION OF JUST ONE SOCIOLOGICAL ISSUE

The citizens of Niihau are in a real bind. They *must* support the Navy's expansion to several sites on their small island, or else - what? I quote from a Honolulu Star-Bulletin article by Trish Moore, dated April 23, 1998:

> Niihau residents say the Navy's proposal to add missile launch sites to their island will benefit them, providing jobs and the opportunity to continue their isolated and traditional lifestyle.

I'll just bet they do. In their circumstances, I'd probably do the same. The article continues with a discussion of some of the business plans of the Robinson family, the

island's owners who shut down their ranch on Niihau several months ago, consequently eliminating 12 to 15 jobs that helped serve a population of fewer than 200 people (a move I believe to be very carefully planned):

> "These are desperate, desperate times. You won't get a lot of dissent from the people," [Keith] Robinson said earlier this week. ***"Folks who don't like it are free to leave."*** (Italics mine.)

Where shall they go?

Maybe they'd like to take their considerable life savings and start over elsewhere, say, buy a nice house in Honolulu and get a civil service job. Or maybe pick up a little homestead in rural Kauai, buy a car to go to and from some decent job they could pick up. Or maybe go somewhere else - the mainland? Nevada? Iowa? Are any of these realistic scenarios? You know how limited their options are. As much as those folks are blessed with a lifestyle the rest of us are only free to imagine, they are also its victims. They have far fewer *real* choices that the rest of us have.

But maybe some people really don't believe in this project, really don't feel comfortable with the increased noise and physical risk and limitations on their abilities to traverse their small island. They do have an option, don't they? *"Folks who don't like it are free to leave..."*

Is this cultural preservation or long-term cultural genocide? Where is your examination of the *mental* health issues that are concomitant with such a quandary?

E) SOME PROBLEMS WITH THE PROPOSED PROJECT/S' PROPOSED EXECUTION AND YOUR RELATED DOCUMENTATION

1) Your DEIS is written as if two choices and two choices only exist: One, that of the no-action alternative, and two, proceeding with the expansion of PMRF as set forth in the document. Wait, wait. What about alternative approaches to achieve your goals? And how about alternative sites? What else did you consider? How about Eglin Air Force Base in Florida? I understand they have already have all the instrumentation in place to proceed with this theoretically vital program. That being the case, of course, your program could be up and running there much sooner than here. But I don't think speed is the critical issue, nor is our citizenry's protection. I believe the first and final considerations are economic (and not necessarily about the economy of Kauai county or even Hawaii) - but more about that later.

2) I quote from paragraph 1 of "Proposed Action Alternative," page 2-45 of the DEIS:

> This alternative [the addition of the Navy's TBMD program, a "layered defense system that consists of an upper tier (Theater-Wide) and a lower tier (Area)] would include all components of the No-action Alternative...Existing range and land-based operations and training, and the ongoing maintenance of the technical and logistical facilities would continue. In this context, addition of the TBMD program would represent *a small incremental change in ongoing activities, although the area used would be increased, with longer engagement distances, higher altitudes, and longer-range targets.* (Italics and underlining mine).

Tell me please, when does "a small incremental change" become significant?

3) This same section (pp 2-45 - 2-52) concerns me in other ways. Paragraph #3 on page 2-46 says that the Theater-Wide program would provide "vital...assets, infrastructures...and entire geographic regions with timely and extensive protection against medium/long range Theater Ballistic Missiles." The discussion continues with an explanation of how multiple ships in international waters could interact cooperatively to further the concept. Then you say, "The Theater-Wide program is not sufficiently developed at this point to evaluate in the document." Astonishing. Isn't this what the DEIS is about?

Besides, I question your statement that it's not sufficiently developed to evaluate. If it's not, how should I deal with Figure ES-2 of the "Pacific Missile Range Facility Enhanced Capability Coordinating Draft Siting Report" dated March 3, 1997? Figure ES-2, entitled "Candidate Locations Carried Forward to *Evaluative Phase*" (italics and underlining mine) shows PMRF/Niihau at the center of a circle whose radii extend to Kodiak, Cold Bay, and Adak, Alaska (ranging from 1,944 to 2,151 nautical miles in distance), as well as Vandenberg (2,177 nautical miles away), and USAKA (Kwajalein), 2,036 miles away? Is PMRF/Niihau in the evaluative phase or not? See also the attached page ES-6 of that same document entitled "Table ES-2: PMRF EIS Siting Summary Total Scores (Percentages)."

Pacific Missile Range Facility
Enhanced Capability

DRAFT

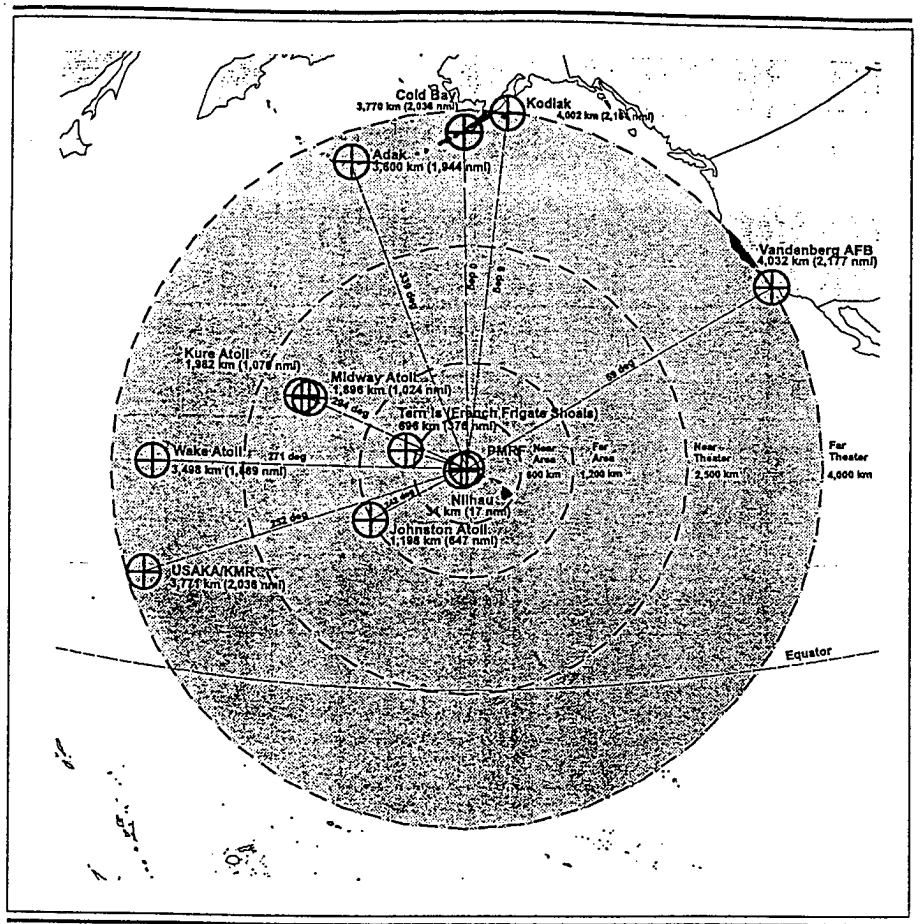
Coordinating Draft
Siting Report

3 March 1997

Proposing Agency:
Department of Land and Natural Resources
Kalanimoku Building
1151 Punchbowl Street
Honolulu, Hawaii 96813

Prepared by:
Commander
Pacific Missile Range Facility
Post Office Box 128
Kekaha, Hawaii 96752-0128

5(A)



EXPLANATION

Cold Bay, AK	0 degrees
Kodiak, AK	6 degrees
VAFB, CA	59 degrees
Johnston Atoll	242 degrees
USAKA/KMR	252 degrees
Wake Atoll	271 degrees
Tern Island	287 degrees
Midway Atoll	294 degrees
Kure Atoll	296 degrees
Adak, AK	339 degrees

km = kilometers
nmi = nautical miles

Candidate Locations Carried Forward to Evaluative Phase

Figure ES-2

9-396

Table ES-2: PMRF EIS Siting Summary Total Scores (Percentages)

			TARGETS				INTERCEPTORS				INSTRUMENTATION	
SITE	Distance from PMRF (km/nml)	Launch Angle (degrees)	Area (%)	Rank	Theater (%)	Rank	Area (%)	Rank	Theater (%)	Rank	(%)	RANK
PMRF	--	--.	97.4	1	95.2	1	98.0	1	--		95.5	3
Niihau	31/17	--	74.0	4	74.0	7	76.8	3	75.2	3	76.2	7
Tern Island	696/376	287	74.6	3	56.2	11	--		--		74.8	9
Johnston Atoll	1,198/647	242	75.4	2	75.2	6	79.2	2.	--		78.7	6
Midway Atoll	1,896/1,024	294	--		64.9	10	--		--		75.4	8
Kure Atoll	1,982/1,079	296	--		42.8	12	--		--		43.7	12
Wake Atoll	3,498/1,889	271	--		87.4	4	--		83.4	2	82.7	5
USAKA / KMR	3,771/2,036	252	--		88.7	3	--		96.0	1	95.5	2
Adak	3,600/1,944	339	--		68.5	9	--		--		72.6	10
Cold Bay	3,770/2,036	0	--		70.5	8	--		--		72.6	11
Kodiak	4,002/2,161	6	--		83.8	5	--		--		84.5	4
Vandenberg AFB	4,032/2,177	59	--		91.2	2	--		--		95.7	1

* Distances and angles are relative to PMRF and will be modified when intercept locations are formalized.

4) Are you planning to launch any of the Theater High-Altitude Area Defense program's rockets from Kauai or Niihau? As you are certainly aware, the fifth consecutive failure of the THAAD occurred on May 12, 1998. To quote from the Honolulu Advertiser on May 13, 1998,

> The failure of the interceptor missile to hit its test target followed weeks of assurances...that they had taken care of problems. Senior defense officials couldn't explain what caused the booster rocket to misfire seconds after launch...Pentagon spokesman...Bacon said the problem appeared different from those behind earlier failures. But that has been the pattern in the THAAD flight tests - each time, something different has gone wrong. *The inability to demonstrate that THAAD's interceptors can hit incoming warheads has implications beyond battlefield defense. The same 'hit-to-kill' concept is at the core of the even more ambitious national anti-missile system being designed to protect the United States against long-range missile attack.* (Italics and underlining mine; more about that ambitious national anti-missile system implications later.)

5) When are you going to decide what you really want to do? How many of what rockets would be launched from where? When? Why can't I find out by reading this DEIS?

F) SOME ECONOMIC FACTORS

1) Do we need this program? We, Kauai, Hawaii? We the United States? We the world? In my June 23, 1997 comments submitted as part of your scoping process, I asked, among other things, how many jobs you planned to create to bolster Kauai's economy. Your reply (Response 5, p 7-149) reminded me that the majority of employees at PMRF are permanent residents of Kauai. That's not what I asked. How many jobs - permanent, long-term, secure jobs, would your vital program create to bolster Kauai's economy? Can you acknowledge that by pursuing militarism so assiduously, opportunities for more peaceful and more financially beneficial employment on Kauai are left by the wayside?

2) Also in my comments from June 23, 1997, I queried (Comment 3): "If our safety from real and imagined enemies is still inadequate ($600 billion per year's worth of inadequate), please explain how this program could possibly make a difference, and why the precious resources that exist here and nowhere else should be put to such great risk." In your reply, you pointed out that the total annual defense budget is less than half the amount I stated.

I stand corrected. The attached sheet, "Military Costs: The Real Total" prepared by the Center for Defense Information (CDI), estimated fiscal year 1997's annual military budget at $485 billion, significantly short of the amount I mentioned. This figure of $485 billion includes military foreign aid ($5B), international peacekeeping ($0.4B, by far the smallest component), our militarily-related space endeavors ($3B), military retirement pay ($18B), veterans' benefits ($39B), and the military's share of interest on the national debt ($166B) - all expenses that normally are not considered part of the 'military budget.' According to the CDI, direct "National Defense" spending by the Department of Defense was estimated at $254 billion for FY 1997. So thank you for inspiring me to understand the great discrepancy between your figures and mine. It's so often a matter of what we choose to consider, isn't it?

Center for Defense Information

1500 Massachusetts Ave., NW Washington, DC 20005 (202) 862-0700 Fax: (202) 862-0708

Military Costs: The Real Total

Official figures for "National Defense" understate the full extent of military spending by omitting several important costs, such as military aid to other countries, the military share of the U.S. space program, veterans' benefits, and the military share of interest on the national debt. The figures below estimate the full cost of preparing for future wars and paying for past wars:

$ Billions in Budget Authority	FY 1996 (Estimated)	FY 1997 (Proposed)
Direct "National Defense" Spending: Department of Defense:		
Personnel	69	70
Operation and Maintenance	93	89
Weapon Procurement	42	39
Weapon Research	35	35
Construction	7	5
Family Housing	4	4
Other	1	1
Department of Defense Subtotal	**252**	**243**
Department of Energy (Military)	11	11
Other	1	1
"National Defense" Subtotal:	**263**	**254**
MILITARY RELATED SPENDING:		
Foreign Military Aid	5	5
International Peacekeeping	0.4	0.4
Space (Military)	3	3
Additional Military Retirement Pay	17	18
Veterans' Benefits	39	39
Military Share of Interest on Debt	167	166
Military-Related Subtotal	**231**	**231**
Total Military and Military-Related Spending:	**494**	**485**

Note: Totals may not add due to rounding.

Prepared by Martin Calhoun, Senior Research Analyst, April 24, 1996.

Sources: Office of Management and Budget, CDI.

3) I accept the figure of $254 billion for the US military budget in 1997. How does that compare to other nations? Well...let's turn to the CDI again. ["The Center for Defense Information believes that strong social, economic, political, and military components and a healthy environment contribute equally to the nation's security. CDI opposes *excessive* expenditures for weapons and policies that increase the danger of war." (Italics mine.)] According to the CDI (whose numbers are taken directly from Department of Defense documentation), our $254B compares to Russia's $63B. That's our nearest competitor for annual military spending - their budget for militarism is about 25% of ours.

How about some others? How about Japan's $54B, France's $41B, China's $29B? Or Iraq's $3B - they're our country's current bogeymen; or North Korea's $6B; Iran's $2B; Libya's $1B; Cuba's $0.3B?

How about if we combine the military spending of the six countries most often identified by the Pentagon as our most likely adversaries (North Korea, Iran, Iraq, Libya, Syria, and Cuba)? If we combine all their budgets and multiply the total by *sixteen*, the figure is still less than our annual military budget. Now you tell me why we're not safe.

9-398

Selected Countries	Military Budget
United States	$254 Billion
Russia	$63
Japan	$54
France	$41
United Kingdom	$35
Germany	$34
China	$29
Italy	$16
South Korea	$14
Saudi Arabia	$13
Netherlands	$9
Canada	$8
India	$8
Australia	$7
Brazil	$7
Israel	$7
Spain	$7
North Korea	$6
Turkey	$6
Norway	$4
Pakistan	$4
Iraq	$3
Belgium	$3
Denmark	$3
Greece	$3
Syria	$3
Iran	$2
Portugal	$2
Libya	$1
Vietnam	$1
Cuba	$0.3

Figures are for latest year available, usually 1995. Expenditures are used in a few cases where official budgets are much lower than actual spending.
Prepared by Center for Defense Information.
Sources: IISS, DOD, CDI.

4) Or let's discuss how our military spending stacks up against other federal budget items. The proposed FY98 federal budget can be broken down into various 'discretionary spending' categories. Military expenses account for $265 billion. Now combine the budgets for education ($31B), Health ($25B), Justice ($24B), International Affairs ($23B), Natural Resources and Environment ($22B), Housing ($20B), Veterans' Benefits & Services ($19B), Science and Space ($16B), Social Services ($15B), Transportation ($14B), General Government ($13B), Other Income Security ($13B), Economic Development ($11B), Social Security and Medicare ($6B), Energy ($5B), Agriculture ($4B), and Commerce ($3B). I'm sure you'll notice that our military budget hugely exceeds all the rest. In fact, it's just *about equal to all the rest of the money we spend every year* in this country. And we're not safe yet? If not, something's profoundly wrong. In fact, something is profoundly wrong here.

5) Okay, so we need to spend more than everybody else put together to be safe as a country. Assuming that's true, what are we defending ourselves against? Other country's weapons? In 1995, the Middle East alone accounted for over two-thirds of the world's increase in arms purchases.

Who else is buying? Algeria, Argentina, Bahrain, Belize, Bosnia-Herzegovina, Botswana, Brazil, Brunei, Chile, 'Classified'(!), Columbia, Czech Republic, Egypt, Estonia, Greece, Indonesia, Israel, Jordan, the Republic of Korea, Kuwait, Lebanon, Lithuania, Morocco, Oman, Peru, Saudi Arabia, Taiwan, Thailand, Tunisia, Turkey, the United Arab Emirates, Uruguay, Venezuela, Zimbabwe. That's just a partial list.

And who's selling? The United States of America is the undisputed world leader in arms trade, accounting for half the global arms sales annually. Half. That list of countries in the previous paragraph lists some, but not all, of the countries that buy from us. They're buying the goods we already bought.

The May 21, 1998 Honolulu Advertiser ran an AP article on page A8, "House bars satellite exports to China, chastises Clinton." Please allow me to quote once more:

> The House voted overwhelmingly yesterday to block future satellite exports to China...Critics claim China may have used the U.S. technology from past satellite sales to make their long-range missiles more accurate.

This bothers me, that we're selling items of destruction to other nations - developing and otherwise - then turning around and increasing our military budget to fend off attacks from countries to whom we've sold weapons. So what gives?

G) WHAT'S IT REALLY ALL ABOUT? AND SINCE YOU ASK, WHAT IS IT THAT I REALLY WANT?

1) What it's really all about is that in this country militarism is no longer, if it ever was, about safety or defense or protection. It's about big ugly bucks.

2) And what do I want to see done? I want us to change our priorities. I want what Senator Mark Hatfield said he wanted when he appeared on "America's Defense Monitor," a television program that was initially broadcast on March 16, 1997 in the Washington DC viewing area.

Senator Hatfield, Republican, US Senator for 30 years, said this:

> Now I'm not a pacifist, I'm not anti-military. I think there's a very legitimate, important role the military plays in our overall security. What I'm saying is until we see our national security made up of a number of components - education, housing, diet, job opportunities, etc., etc., - they're all part of our national security. But every president has been seduced into believing that you measure your national security by the megatons in your arsenal and ignore these people needs, and the spiritual needs, and all the other parts that make up a total nation. I don't understand what that is so elusive in people's thinking. So, when we are undertaking to strengthen a bomb, or a tank, or an airplane at the same time we're cutting down on education and not meeting the housing needs of our people, or the fundamental needs of people, health, and so forth, we creating a vulnerability that all those tanks cannot substitute for that vulnerability.

How has this happened? How has our greatness as a nation become so sullied? Where did we go wrong?

Senator Dale Bumpers has some ideas about that. He sits on the Defense Subcommittee on Appropriations. On February 1, 1998, he appeared on "America's Defense Monitor" too. This is what he had to say:

> I can only remember two or three weapons systems in my 23 years in the Senate that we have ever stopped. They take on a life of their own, and the minute Congress starts looking at them, the manufacturers start running full-page ads in every newspaper and magazine in the United States, giving the American people the impression that we will be so seriously threatened if we don't build that particular weapons system...When you think about how bloated that defense budget is and how much more we're spending than the rest of the world, it's just absolutely unfathomable and we continue doing it...You can vote for all the defense spending you want to and it will never cost you a vote...It's just one of those things that if you say, "I have voted for a strong defense, I want American to be second to nobody in defense, in our strength," who's going to vote against that? So the debate, the real debate, is put off to one side and we just keep adding billions and billions.

How sad.

Now, finally, what do I want? According to an article dated April 24, 1998 in the Honolulu Advertiser, "Study finds U.S. lax in terrorism defense," we have a "government anxiously taking inventory of its defenses against new and potentially devastating threats within the United States, such as terrorist use of biological weapons...The study reflects a conclusion that...lone terrorists...now represent the most likely - and most difficult to combat - domestic threat." I want us to spend our money, an appropriate amount of our money, making our citizens safer from terrorism, from biological and chemical and explosive terrorism. But we're not doing that. We can't afford to right now...

I want a Congress that doesn't insist that we be able to fight two wars at once with no allies (that's literally the current scenario). I want reprioritization. I want the people of Niihau to have real choices, real safety, as well as the people at Kwajalein. As well as the rest of us.

I want you to deal honestly with the concept put forth in the March 24, 1997 Aviation Week and Space Technology. The Pentagon is worried about urban sprawl and

the environmental restrictions that limit the missile programs that can proceed near population centers. The problem is going to grow worse with the "need to test longer range cruise missiles, hypersonic weapons and a whole spectrum of ballistic missile defense weapons." But, they say, there's hope - Kauai, the PMRF, Niihau, offers "largely unrestricted missile firing and flight test space."

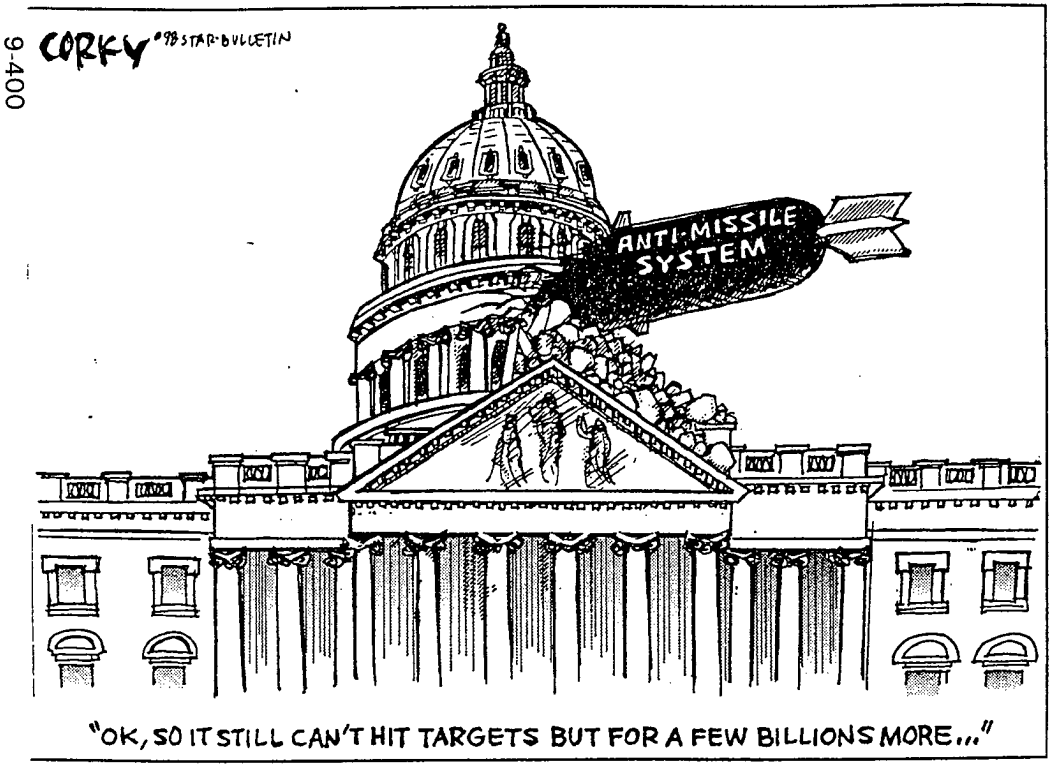
Only a few things stand in their way - monk seals, Laysan albatrosses, indigenous human populations, green sea turtles, clean air and water, healthy coral reefs, our humanity...

Kind regards,



Suzanne Marinelli

9-400



DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1110
23 OCT 1998

Ms. Suzanne Marinelli
2335-A Oahu Avenue
Honolulu, HI 96822

Dear Ms. Marinelli:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS). We appreciate your opinions on the Draft EIS, as public input is critical to the EIS process. Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

Citizen Participation

Our schedule did not allow for extension of the May 26 deadline for comments. We have continued to consider any comments received and have attempted to respond to all comments on the Draft EIS as our publication schedule permitted.

I am sorry you did not agree with the way we conducted our scoping meetings. We received valuable input and had the opportunity to discuss the EIS and proposed action with many interested people.

Summary of Environmental Impacts Table

The hierarchy of impacts described in the Executive Summary follows a well accepted methodology for assessing and evaluating the magnitude of potential impacts.

Biological Consideration

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Sociological Issue

The Navy has solicited input from all interested parties on Kauai and Niihau. For Niihau, this included two informational meetings. We believe that these meetings, coupled with the testimony of several Niihau residents at the Waimea public hearing April 25, 1998, indicate a full and complete understanding of the proposed action and its potential impacts.

In response to you numbered inputs, the following are corresponding answers.

Proposed Project's Execution and Related Documentation

1. NEPA allows great flexibility in analyses to support various decisions. The purpose of this EIS is to decide if and how to enhance PMRF to support testing and training like TBMD and other Department of Defense Theater Missile Defense programs.

2. Table 2.5.3 provides our conclusions about potential impacts of the proposed action.

3. The EIS analyzes the effects of implementing the proposed action, which is defined as enhancing PMRF to support testing activities, including Area defense. Enhancing the range for Theater-wide testing activities is not proposed or analyzed in the EIS.

4. See #3 above.

5. The EIS provides information about all activities currently proposed at this time.

Economic Factors

1. While the Navy does not claim that the proposed enhancements will have a substantial impact on employment or the local economy, we recognize that business and civic leaders consider the proposal to enhance PMRF's capabilities a positive development for the economic stability of Kauai and the larger Hawaiian community. We look forward to continuing to be a good neighbor to the people of Kauai.

2. The Congress of the United States has determined that we need to have effective defenses for our armed forces and allies against missile attacks, like the ones that killed many of our young men in Saudi Arabia during the Gulf War. Congress has also recognized that PMRF provides an ideal setting to test these systems because of its established technical infrastructure and the wide ocean expanse to conduct the actual intercept tests.

3. The leaders of our country must make many difficult decisions concerning how and where to conduct activities that will provide us with a strong defense. PMRF already conducts many testing functions vital to our national defense. The EIS is analyzing the environmental impacts of enhancing its capabilities to perform testing of missile systems to protect our armed forces and allies.

4. See #2 above.

5. See #2 above.

What's It All About?

1. See #2 above.

2. Your comments will be considered in the decision about this program.

Let me assure you that those of you who have the privilege of working at PMRF want to do all we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0285

9-402

P-W-0287

TESTIMONY:
MISSILE SITE EXPANSION
RESPONSE TO THE DRAFT EIS

DATE: April 25, 1998

FROM: ARIUS HOPMAN, 808-335-0227, PO Box 1032, Hanapepe, HI 96716
I am a geologist by training (BSc cum laude), an inventor with two issued patents and a business owner in Hanapepe.

CONCLUSION: the US public urgently needs the resources, expertise personnell and sophisticated instrumentation of the military services, to collect data on our deteriorating environmental crisis and step in vigorously to make corrections. We have only a very limited window of opportunity to correct our environmental errors: The American public NOW urgently needs the military services.

The Draft EIS is incomplete and the DEIS hearing in April, 1998 was an insult to the concerned public on the following grounds:

1. Everybody who testified in favor of the Pacific Missile Range Facility (PMRF) expansion did so on economic grounds. The DRAFT ENVIRONMENTAL IMPACT STATEMENT HEARING IS NOT INTENDED TO DEAL WITH ECONOMICS. IT'S ONLY CONCERN IS THE ENVIRONMENTAL IMPACTOF THE PROPOSED ACTION. Therefore, these favorable testimonies were inappropriate and should logically be discarded. What you have left is a lot of concerned citizens expressing serious environmental considerations.

2. The April meeting was highly biased and unfair: It was conducted on Earth Day, when most environmentally concerned citizens had a meeting on the North end of the island. The meeting violated the separation of church and state, with an opening Christian prayer. This was obviously choreographed to impress the Ni'ihau Hwaiians who also sang Christian hymns during the proceedings.

3. The naivete and innocence of the Ni'ihauans' as to the consequences of their decision to invite PMRF to Ni'ihau was shamelessly taken advantage of by PMRF. Not only did the display have nothing to do with the environment, it is a violation of one of the last vestiges of pure Hawaiian culture. The proposed action of invading Ni'ihau with military installations is cultural genocide and should be investigated thoroughly by an independent team of anthropologists. The proposed installation is also in violation of the spirit of President Clinton's apology bill to the Hawaiian people. HANDS OFF NI'IHAU AND WILDLIFE REFUGE TERN ISLAND.

4. The DEIS hearing was held in Waimea, on the west side, far away fromthe center of population of the island and in a town that depends economically on PMRF. Unfair.

5. The government preparer specialists spent nearly a year preparing the DEIS. It is insulting to the public to expect lay people to respond intelligently to the three-inch thick DEIS in five weeks. Such short notice makes me conclude that the Navy is not really interested in public input. This is nothing short of a violation of the democratic process. I hereby request, in democratic fashion, equal time to respond.

6. At the PMRF-sponsored information meeting in June of last year at the Waimea High School there was an information specialist and military spokesman from Washington present to answer public questions. I asked him if land-based expansion was essential and whether launcings could not be done from sea. His response was clear and could not have been misinterpreted. He said: "Sure, target missiles can be launched from barges, we have been doing that. Land-based missile launchings are not essential. Ocean launchings are less convenient, more costly and more weather-dependent. We are required by law to review all existing alternative launching options before making a decision. That protocol is what has triggered the investigation of land-based launchings on Niihau and the uninhabited islands as well, even though they are not essential to our success." PMRF information specialist Jim Erwin, who was present at the April DEIS hearing, informed Arius Hopman that the main interest in Ni'ihau was for FUTURE MILITARY EXPANSION, AND WAS NOT NECESSARY FOR TARGET MISSILE LAUNCHES CONSIDERED IN THE DEIS. This is clearly an incomplete disclosure in the DEIS and a violation of public trust and the innocent trust of the Ni'ihau Hawaiians.

Considering the historic FACT that barge launchings are a viable option, I feel it is unconscionable for the Navy to pursue the possibility of invading a new island for their expansionism. It has never been clear to me why the largly unused lands of PMRF are not considered as first choice for all the newly proposed installations?

7. Ni'ihau is the oldest and least developed of the populated islands. It is considered to be 4.5-5 million years old. Other islands to the north-east are even older. New species were evolving here aeons before the other, now-populated islands to the south and east even emerged from the sea. It is a logical deduction that species evolved on these islands first, that exist nowhere else. At this stage **it is urgent that these land species be identified** by a team of civilian specialists before they are blindly obliterated by unnecessary development. The moment Robinson invited the military to Niihau he opened the door to public investigation. The military is a public service. Robinson's hands-off policy cannot apply. The public must be able to inform itself about conditions on Ni'ihau. PMRF is obliged to provide a detailed inventory of ALL endemic, at-risk and endangered species on proposed sites of development. THIS IS A GLARING OMISSION IN THE DEIS AND CONSTITUTES INCOMPLETE DISCLOSURE. It is also PMRF's responsibility to make the areas available to public investigation.

8.I wrote a long testimony for the June 1997 PMRF meeting. The response I got was predictabe institutional boilerplate jargon. Basically a to-heck-with-you, defensive and flippant attitude. Not the respectful response of a public servant, but the condescending response of an autocrat. Many of the main points in my letter were disregarded completely, and responses were limited to pat answers, such as: "The Proposed Action complies with guidance from Congress..." or "Issues related to other social issues, are outside the scope of analysis..." I start out my testimony with "We are in a global ecological crisis that is unprecedented in history and that is deteriorating exponentially..." I detail the crisis. The response I get back is "The draft EIS is limited to addressing the environmental consequences of the alternatives under consideration..."

THE WHOLE POINT I MAKE IN MY TESTIMONY IS THAT OUR HOUSE IS ON FIRE. **WE CAN NO LONGER AFFORD TO LIMIT THE SCOPE OF OUR INVESTIGATION**. WE MUST, BEFORE IT IS TOO LATE, TAKE INTO CONSIDERATION THE BROADEST POSSIBLE PERSPECTIVE, NOT THE NARROWEST!

This is a time for urgent trans-departmental thinking, for seeking to understand before trying to be understood. The public needs more time to respond, and the Navy, and Congress are requested to listen with an open and receptive ear. Under the circumstances at this turn of the century, it is dangerously immature to be self-serving or narrow-minded. Our only survival option is to steward the planet **for the benefit of all life**. We have been cutting off the branch we are sitting on. Cancerous expansionism is no longer an acceptable option. We need to STOP AND RE-EVALUATE ALL OUR ASSUMPTIONS, INCLUDING THAT WAR IS AN ACCEPTABLE WAY TO SOLVE HUMAN DIFFERENCES, because obviously many of these assumptions are dangerously wrong. WE HAVE ONLY A VERY LIMITED WINDOW OF OPPORTUNITY TO CORRECT OUR ERRORS. We may yet be proven the most stupid, not the most intelligent species on earth. Our lack of wisdom has already caused the loss of many species to extinction. We are eroding our life-support base on the planet. WE HAVE A CHOICE...FOR A SHORT TIME MORE, BEFORE IT IS TOO LATE.

9. According to a public statement made by Three-Star General Caroline Kennedy, we have no peer competitors in the world, and do not expect one to emerge for at least two decades. **BUT WE DO HAVE A DANGER.** The real danger to all of us now is environmental! WHILE THE MILITARY IS DALLYING WITH INESSENTIAL "DEFENSE" **THE REAL DANGER IS MOUNTING EXPONENTIALLY!**

CONCLUSION: the US public urgently needs the resources, expertise personnell and sophisticated instrumentation of the military services, to collect data on our deteriorating environmental crisis and step in vigorously to make corrections. This is what is meant by the **need** to take a view THAT IS BEYOND THE SCOPE OF THE DEIS.

All the other proposed actions by the Navy are by comparison nit-picky and a waste of precious time and taxpayer's money!

End

9-403

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
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IN REPLY REFER TO:
5090
Ser 00/ 1 1 1 2
2 3 OCT 1998

Mr. Arius Hopman
PO Box 1032
Hanapepe, HI 96716

Dear Mr. Hopman:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement (EIS). Our country was built on the idea that we all should be able to express our views and be heard.

1. While the Navy does not claim that the proposed enhancements will have a substantial impact on employment or the local economy, we recognize that business and civic leaders consider the proposal to enhance PMRF's capabilities a positive development for the economic stability of Kauai and the larger Hawaiian community. We look forward to continuing to be a good neighbor to the people of Kauai.

2. The public hearing was conducted following normal, well-established procedures. The U.S. Navy has no control over the methods or tactics of supporters or detractors of the proposed action.

3. this included two informational meetings. We believe that these meetings, coupled with the testimony of several Niihau residents at the Waimea public hearing April 25, 1998, indicate a full and complete understanding of the proposed action and its potential impacts.

4. Waimea was chosen as the hearing site because it was the site closest to PMRF and the area most directly affected by the proposed action.

5. The length of the formal comment period was customary and fully adheres to all regulations and guidelines. Our schedule did not allow for extension of the May 26 deadline for comments. We have continued to consider any comments received and have attempted to respond to all comments on the Draft EIS as our publication schedule permitted.

6. Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

7. Niihau elders assisted the Navy in identifying areas where Navy activities could occur. Cultural and natural resource surveys have been conducted with Niihau residents in these areas. Within these areas, as specific siting activities proceed, more detailed surveys will be conducted.

8. I'm sorry you felt my earlier letter was unresponsive. We have attempted to provide complete and accurate responses to all comments.

   Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

9. The Congress of the United States has determined that we need to have effective defenses for our armed forces and allies against missile attacks, like the ones that killed many of our young men in Saudi Arabia during the Gulf War. Congress has also recognized that PMRF provides an ideal setting to test these systems because of its established technical infrastructure and the wide ocean expanse to conduct the actual intercept tests.

PMRF already conducts many testing functions vital to our national defense. The Enhanced Capability EIS is analyzing the environmental impacts of enhancing its capabilities to perform testing of missile systems to protect our armed forces and allies.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0287

187-C Hokulani Street
Hilo HI 96720

Ms. Vida Mossman
Pacific Missile Range Facility
P.O. Box 128
Kekaha HI 96752-0128

Subject: Comments on draft EIS, PMRF Enhanced Capability

Dear Ms. Mossman:

Thank you for having sent me a copy of the above-mentioned document. (Please note that in the distribution list that appears in Volume 2, my name and address are incorrect.)

I have reviewed the document as well as the comments of several parties. Rather than cover the same points that are addressed so well in the letters of Michael Jones of the University of Hawai'i Department of Physics and Astronomy and of the Earthjustice Legal Defense Fund, **I hereby incorporate their comments by reference**. As you are aware, they raise a number of points about the procedural methods used in the analyses contained in the DEIS; they raise concerns with respect to the substance of the DEIS; they raise questions about the viability of the project, as outlined in the DEIS; and they raise the disturbing question that this project, should it be conducted as described in the document, may violate international agreements entered into by the U.S. government. I second all these concerns.

Following are more specific comments:

Volume 1, 2-45: the statement is made that the dunnage incinerator at Johnston Island (JACADS) "is used to burn combustible wates." This is not true. There is a dunnage incinerator, but it is not in use.

Same page: "early indications are that the USFWS ... may develop a wildlife refuge there." A wildlife refuge already exists at Johnston Atoll, as the DEIS itself describes elsewhere.

2-59: description of the Air Drop for aerial target launches. The "pallet and associated expendable parachute hardware" are to fall into the ocean without recovery. What impacts might the parachute have on sea life? Could protected species as well as fish become entrapped in it? Would it function in the same manner as, say, abandoned fishing gear? The size of the parachute should be stated and any possible impacts of this discard on marine life should be fully described.

2-91: Discussion of hazardous materials and management at PMRF (2.3.6.9.3.). The statement is made that the proposed expansion will result in a 10 percent increase over "baseline conditions". Will this necessitate any expansion of the licensed RCRA facility on site?

2-108 and 2-109: Table 2.5-3. I question the description of the impact the proposed action will have on biological resources at both Tern Island and Johnston Atoll. With respect to Tern island: the summary states there will be "minor" amounts of habitat removed. Could this be expressed as a percentage of available habitat? What mitigation measures are proposed?

With respect to Johnston Atoll, the proposed action is said to have "no adverse" effect on biological resources. Yet the summary itself states that there will be lost of nesting habitat for protected species of birds; birds will be impacted by noise; possible impacts to eggs (resulting in reproductive failure, most likely); more extensive dredging. This does not add up to "no adverse impact."

In the summary of land use impacts, there is reference once more to the "intended establishment of the Johnston Atoll NWR." This refuge is already established.

3-25, Coastal Zone. The discussion here relies on Miller, 1994. It has very little application to the Hawai'i coastal zone. The Hawai'i coastal zone is not "the site of most large commercial marine fisheries" in Hawai'i, which are pelagic. We have no continental shelf. A source other than Miller should be used as the basis for this discussion.

3-30, Hoary bat. The statement is made that the Hawaiian hoary bat is known to feed offshore of PMRF. Please provide a citation for this statement. It was not my understanding that Hawaiian hoary bats preyed over the ocean.

3-32, Table 3.1.1.3-2, marine species within the Hawaiian coastal area. At least five species of sea turtles are found in Hawaiian waters. In addition to the three listed, there are leatherbacks and Olive ridleys. If these are not to be included in the discussion, please justify why not.

3-35, discussion of loggerheads. This discussion is extremely confused. In the middle of the paragraph, reference is made to the hawksbill turtles. Please correct this paragraph.

3-35, discussion of hawksbill turtles. Here the hawksbill is described as a "medium-sized turtle...up to 90 cm long." In the previous paragraph, it is described as "a relatively small sea turtle... about 40 to 55 cm" long. Which is it?

3-159, discussion of fishing vessels. Here it is stated that the offshore zone is a source "of commercial interest for both US and foreign boats." Please describe the foreign boats fishing in the Hawaiian coastal zone.

Johnston Atoll: I am aware of the concerns that drove the preparers of the DEIS to decide that Johnston Island was not a suitable launch site (these seem primarily to be an avoidance of the JACADS incinerator within the ground hazard area of launches). However, this ignores the fact that the JACADS is expected to be no longer in service, and the chemical weapons no longer extant, beyond the year 1999. Assuming that the Army keeps to its schedule and that the PMRF range expansion could not occur until, at the earliest, the year 2000, the reason for siting the launch platform on an atoll that has already begun recovery of natural systems from previous human occupation seems strained, at the best. I think it would be far less disruptive to launch missiles from Johnston Island proper rather than disturb habitat for birds on one of the outlying islands in the atoll. If this is not possible because of the (ever changing) limits of the ground hazard area for the unspecified missiles that will be used, then I believe Johnston Island and Johnston Atoll should be ruled out of consideration.

The discussion of what would happen in the event of an on-pad fire is overly dismissive and indicates no concern whatsoever for the toll on bird life that would inevitably result. Even the remedial work proposed (removal of soil) from islets where soil is in short supply suggests a cavalier insensitivity or inattention to the natural environment. Soil removal would, of course, be catastrophic for ground-nesting or burrowing birds.

Moreover, I am disturbed by the suggestion that additional dredging of the coral would be required in the atoll waters. Dredging in the atoll has already occurred at levels properly described as catastrophic. Recognizing that the health of the birds depends in large measure on the health of the marine environment, I believe it would be damaging to the health of the birds (to say nothing of the marine animals) to conduct any further dredging.

Tern Island: I would repeat the concerns raised in the letter from the Marine Mammal Commission. The DEIS suggests no mitigation that would address problems relating to human use of Tern Island, especially with respect to the monk seal population. As the letter of John Twiss Jr., executive director of the commission, states, the impacts of any use of the island in support of launches would be unavoidable and negative. No real mitigation measures have been outlined in the DEIS -- nor can there really be any.

Extension of public comment period: I would ask that the Navy extend the period of public comment on this document for at least 60 days. As Michael Jones has indicated, the supporting documents were not made available for public review until late in the existing public comment time frame. There is no reason to penalize the public for what is the Navy's fault.

I appreciate the opportunity to comment on this serious issue and look forward to receiving an overhauled and much better document in the final EIS.

Yours truly,

Patricia Tummons

Patricia Tummons

9-406

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1 1 1 4
2 3 OCT 1998

Ms. Patricia Tummons
187-C Hokulani Street
Hilo, HI 96720

Dear Ms. Tummons:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement (EIS). Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

Please see the responses to the Michael Jones and Earthjustice Legal Defense Fund letters in the Final EIS for responses to the questions and concerns outlined in those letters.

1. Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

   The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

We have spoken with a Defense Special Weapons Agency (DSWA) representative who indicated that the incinerator has been temporarily shut down for repairs. We are not aware of any plans to permanently shut down the incinerator.

By E.O. 6935 dated December 29, 1934, Johnston Atoll is designated for use by Department of Defense (DOD). A good working relationship between DOD and the U.S. Fish and Wildlife Service (USFWS) has successfully allowed maintenance of an overlay refuge and breeding grounds for native birds at Johnston Atoll for many years, as is the case for a number of other DOD installations. In fact, DOD funds the necessary USFWS activities to maintain the refuge. While current DOD plans are to complete incinerator operation in 2001, DOD has no approved plans to leave Johnston Atoll and the making of such decisions would be subject to consideration of operational needs identified by any of the services. As the Draft EIS stated, however, the ultimate disposition of Johnston Atoll would probably be to USFWS.

2. 2-59. As described in Section 4.4.2.2.5, entanglement of a marine mammal in a 28-foot diameter parachute would be very unlikely since the mammal would have to swim into it or not detect from above as the parachute sinks. Moreover, the chance of a mammal being in the same area and having physical contact with the parachute is remote. The Navy plans to recover everything that enters the water when possible, especially the two 43-foot-diameter target vehicle main parachutes.

3. 2-91. As described in Section 4.1.1.6.2, the existing accumulation points on PMRF have ample storage area to meet the increase in hazardous waste generated, and no new storage facilities would be required.

4. 2-108 and 2-109. Table 2.5-3. Regarding threatened and endangered species such as the monk seal and green sea turtle, we are in consultation with USFWS and the National Marine Fisheries Service under the Endangered Species Act as indicated in Volume 2, Appendix K, pages K1 and K7 (As mentioned above, Tern Island and Johnston Atoll have been deleted from the proposed action.)

5. 3-25. The phrase you quote regarding commercial fisheries has been deleted from Section 3.1.1.3.2.2.

6. 3-30. As indicated, the source for Table 3.1.1.3-1 is U.S. Army Space and Strategic Defense Command, 1993. The source cited in that document is Tomich, Q., 1986, Mammals in Hawaii, Honolulu, Bishop Museum Press.

7. 3-32. Section 3.1.1.3.2.4 has been revised to include the leatherback turtle and Olive Ridley turtles.

8. 3-35. Thank you for pointing out this error; it is corrected in the EIS.

9. 3-35. Thank you for pointing out this error. The correct description of the hawksbill turtle is that it is up to 90 cm (35.4 in) long.

10. 3-159. Section 3.3.1.3.2.3 of the EIS has been revised to state that commercial fishing occurs outside refuge boundaries.

11. As stated above, Johnston Atoll has been deleted from the EIS. The following is provided for informational purposes only. Johnston Atoll: Based on your suggestion and consultation with USFWS, Section 4.3.2.3.2.2 has been revised to consider use of Johnston Island as a launch location, when it can be done safely.

With regard to fire protection, we establish safety areas surrounding launches (called Ground Hazard Areas, or GHAs) and include the possibility of early flight termination in our analysis of environmental effects. Prior to a launch, a Missile Accident Emergency Team (MAET), which includes fire suppression capability, is positioned at the edge of the GHA. The MAET also includes a helicopter with a water bucket airborne or on standby.

With regard to removal of soil or dredging of the coral reef, prior to any dredging, geological and biological surveys would be conducted. This is indicated in Section 4.3.2.3.2.2.

12. Tern Island: See our response #4.

13. Extension of public comment period: Our schedule did not allow for extension of the May 26 deadline for comments. We will continue to consider any comments received and will attempt to respond to all comments on the Draft EIS as our publication schedule permits.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0290

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

BIRDS IN THEIR HABITAT
Henry Lappen
120 Pulpit Hill Rd. #31
Amherst, MA 01002

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1116
23 OCT 1998

Mr. Henry Lappen
120 Pulpit Hill Road, #31
Amherst, MA 01002

Dear Mr. Lappen:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0293

Carl M. Stepath
PO Box 598
Hanalei, HI 96714

April 22, 1998

Governor Ben Cayetano
State Capitol, 415 So. Beretania St.
Honolulu, HI 96813

Dear Governor Cayetano,

Thank you for your many years as a proven conscientious and effective leader in the area of environmental affairs. I appreciate your support for the Hawaiian Islands Humpback Whale Sanctuary. Now we are beset by a dilemma wherein one branch of the federal government - the United States Navy, appears to have an adverse interest with respect to another important agency - the U.S. Fish & Wildlife Service. They are proposing to launch rockets from parts of the Northwestern Hawaiian Islands National Wildlife Refuge as part of PMRF's theater ballistic missile defense testing program.

I do not believe any compromise in the form of "mitigations" can make the Navy's operations compatible with the present tranquillity and security that defines this refuge. I would hope that the Fish and Wildlife Service would make it clear to the Navy and the public at large that not only does it have as its principle responsibility the safeguarding of this critical habitat, but it must, by law, conform to a higher mandate to manage the refuge in ways that actively advance the recovery of threatened and endangered species such as the Hawaiian monk seal.

I see no compelling reason why our wildlife refuges need be compromised to any degree. As a Viet Nam veteran, I feel these areas should be maintained for the wildlife they serve, and for the preservation of the environment for future generations.

Finally, I am concerned that an acceptance of any such compromise now would have the devastating effect of setting a terrible precedent for the future and may become a cause for the erosion of the public's good faith in, and viability of, the U.S. Fish & Wildlife Service's own very important mission.

Any influence you might be able to bring in reconciliation of this dilemma would greatly be appreciated.

Sincerely Yours,

Carl M Stepath

Co / B
PAO

EXECUTIVE CHAMBERS
HONOLULU

BENJAMIN J. CAYETANO
GOVERNOR

May 19, 1998

Mr. Carl M. Stepath
P.O. Box 598
Hanalei, HI 96714

Dear Mr. Stepath:

Thank you for your letter of April 22, 1998, expressing concern for possible impacts to wildlife from missile launchings in the national wildlife refuge, Northwestern Hawaiian Islands.

I share your concern that wildlife should be protected and preserved. Toward this end, I would like to pass along your thoughts to the proper agencies.

Thank you for your continuing efforts to protect Hawaii's wildlife.

With warmest personal regards,

Aloha,

Benjamin J. Cayetano

BENJAMIN J. CAYETANO

cc: Capt. James Bowlin, Commanding Officer
Pacific Missile Range Facility
Mr. Jerry Leinecke
Project Leader, Refuges
U.S. Fish & Wildlife Service

9409

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1 1 1 7
2 3 OCT 1998

Mr. Carl M. Stepath
PO Box 598
Hanalei, HI 96714

Dear Mr. Stepath:

Governor Cayetano has forwarded your letter regarding potential impacts in the Northern Hawaiian Islands National wildlife Refuge as described in the Pacific Missile Range Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

As to threatened and endangered species such as the monk seal, we are in consultation with the National Marine Fisheries Service under the Endangered Species Act as indicated in Appendix K.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0295

9-410

P-W-0297

Ms. Beverly J. Weeks
100 N Prospect St
Amherst MA 01002-2014

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

Beverly J. Weeks

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1119
23 OCT 1998

Ms. Beverly J. Weeks
100 North Prospect Street
Amherst, MA 01002-2014

Dear Ms. Weeks:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement.

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0297

P-W-0298

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

Caroline G. and Gordon D. Arnold
172 State St, Amherst, MA 01002

9-411

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1120
23 OCT 1998

Mr. and Mrs. Gordon D. Arnold
172 State Street
Amherst, MA 01002

Dear Mr. and Mrs. Arnold:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0298

P-W-0299

9-412

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

R Keith McCormick

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1121
23 OCT 1998

Mr. R. Keith McCormick
145 Old Amherst Road
Belchertown, MA 01007

Dear Mr. McCormick

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0299

J.A. Bowlin, Captain
U.S. Navy
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

5/10/1998

Re: Pacific Missile Range Facility Expansion
Draft EIS

PUBLIC COMMENT OPPOSING THE EXPANSION

I dedicate my comments to the courageous, indigenous People of Hawaii.

I have been privileged to spend many months each year on the beautiful, sacred Island of Kauai.
What you, the U.S. Navy/PMRF, are planning to do here is absolute sheer madness - in light of the fall of communism and the Soviet Union, close to 10 years ago - there are no military threats to warrant an expansion of operations, such as what is proposed here on Kauai.

This is the most beautiful, precious place on this earth! People come here, including me, from distances of tens of thousands of miles away - to rejuvenate their spirit, their body and soul, to capture a glimpse of primordial beauty destroyed elsewhere in the world. This island is a sacred jewel, constantly fighting destruction from all sides: human greed, natural forces and now this mad folly to expand the operations of the Pacific Missile Range Facility on Kauai and Niihau, as well as to the Tern Island and Johnston Atoll.

The Island of Kauai should be dedicated to PEACE - this base should be decommissioned and rededicated as as International Peace Center for the Pacific.

There must be some creative minds within the local and state governments to find employment, sustainable, honorable employment based on land use by local people in a way to create a completely self-sustaining, independent system of living - which respects the Environment and the Culture of the Hawaiian People!

I have suggested to the Kauai Planning Commission to ask the Navy to allow commercial boating operations from the PMRF to save the beautiful HANALEI Bay and River as a Wildlife, Ecological and Cultural Sanctuary for future generations.

I think the business community is ill-advised, if they in their short-sightedness, support this military expansion. Visiting tourists will not tolerate seeing military helicopters passing by the South shore, Poipu, day after day - the sound is already utterly intolerable!

It is also my understanding, inspite of the denials, that radioactive materials and radioactive waste are stored on the island. Figure 3.1-2 in volume 1 of the Draft EIS shows the Department of Energy's and Sandia's Launch Facility within the Kauai Test Facility at PMRF. In the Final EIS, please, describe in detail what the current DOE and Sandia operations entail and describe in detail all of the radioactive isotopes used by their and other operations at KTF/PMRF. This disclosure has been omitted in the Draft EIS.

Also, please describe what happened to the radioactive waste during the attack from Hurricane Iniki in 1992. Were radioactive materials present in any of the 22 buildings damaged/destroyed by Iniki as described in DOE's recent Natural Hazards Conference Report? Did you provide a post-Iniki Environmental Assessment, prepared by DOE, to the impacted community? Please, make it part of the official record in the Final EIS!

As we all know, nuclear warheads contain plutonium, which has a 23,000 year half-life, and tritium, a radioactive isotope of hydrogen, which oxidizes quickly in the atmosphere and becomes tritiated water, which acts like regular water, and is taken up by all vegetation, foodstuffs, plants etc.

A question to the business community: are you going to allow the threat of toxic and radioactive contamination from this military base via accidents and natural disasters, such as hurricanes? Are you allowing the potential destruction of the island, its environment, the health and safety of its people?

There must be peaceful means for survival and sustainable living.

People have the right and must fight for their community's safety, for a clean environment and clean and safe water - the basics.

The current proposal to expand the Ballistic Missile Defense Program on Kauai, Niihau, Tern Island, Johnston Atoll will ultimately mean that this area will become the #1 military TARGET in an offensive attack. This proposed plan means that Kauai and the other islands have been officially designated to be sacrificed in an offensive attack. The impact of this was never discussed in the Draft EIS!

I urge you all to work for peace - leave the old cold war mind set behind. Don't allow the military-industrial complex to expand on the island. The long term results will be nothing but horrific toxic/radioactive environmental contamination, as was seen during the base closures on the main land and here on KAHO'OLAWE! - and ultimately the island becoming a target.

The proposed plan is a dead-end! There is no future, other than the potential legacy of environmental degradation to be passed on to future generations. Put a stop to it NOW, here on Kauai, work for peace in the Pacific and the world in the next millenium, the Draft EIS did not consider that - as an alternative to the proposed project.

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ADDENDUM

Please, answer in detail these specific questions/concerns:

1. Regarding NIIHAU:
Please, provide information regarding the person who conducted the "independent" survey among residents of Niihau, for the purposes of the Draft EIS. Please, make his/her Curriculum Vitae part of the official record/Final EIS. Were any Native Hawaiian organizations consulted prior to the selection of the "independent" consultant? Were any members of any Native Hawaiian organizations present when the "independent" consultant interviewed residents of Niihau? I am requesting that the Navy/PMRF contact the following individuals: Dr. Jim Anthony, Ph.D., Mr. Jeff Chandler and Ms. Puanani Rogers - for the purposes of evaluating whether the "independent" consultant's work was adequate and acceptable to them. And if Dr. Anthony, Mr. Chandler and Ms. Rogers deem the work not adequate, they or their representatives should be allowed to send their own consultant to Niihau to interview the residents and to assess the situation properly. Also I would like to suggest that an Attorney, specializing in Civil Rights issues, would be allowed to accompany the group and write a legal opinion on the issue of Niihau and the 200 Native Hawaiian residents there, and that this report also be made part of the official record and Final EIS.

2. Regarding DOE/SANDIA operations at the KAUAI TEST FACILITY at PMRF, and specifically issues related to DOE/SANDIA's usage, handling, storage, treatment and transportation of radioactive materials and waste:

   A. When did DOE/SANDIA operations start at KTF/PMRF?
   B. How many radioactive work authorizations (RWA) have been issued to DOE/SANDIA personnel since operations started?
   C. Please, list each RWA and specify the radioactive isotope and quantity and date of each authorization.
   D. What is specifically the program and mission of DOE/SANDIA at KTF/PMRF now? For the next 5 years?
   E. Please, disclose all of DOE's Environmental Documents since 1990, and make them part of the official record. I would specifically like to receive DOE's 1992 Environmental Assessment (EA) and a copy of the POST-INIKI Environmental Survey/Assessment.

   Within DOE operations there are generally 3 waste categories:
   1. Hazardous 2. Mixed (=hazardous and radioactive combined) and
   3. Radioactive (low level, high level or transuranic/TRU).

   The DEIS paragraphs related to Radioactive Waste Management are misleading and incorrect. See page 3-53, paragraph 3.1.1.6.2.1.1. "...Radioactive materials are treated as hazardous materials for administration." What do you mean by that statement??? Radioactive materials and waste are MUCH MORE hazardous than hazardous due to the long half-life of many radioactive isotopes, such as plutonium. Please, provide copies of all the Program Introduction documents and granted approvals for shipments of radioactive materials to PMRF during the last 10 years, including all currently pending requests.

Again on page 3-47, paragraph 3.1.1.6.2.1. Hazardous Materials. Does this paragraph refer to hazardous materials or radioactive materials or both (see previous concern, p. 3-53).

"PMRF manages hazardous materials through the Navy's CHRIM Program. ...The exeption to this is KTF, which obtains its hazardous (radioactive) materials through DOE channels."

Please, specify in detail how radioactive/hazardous materials and waste have been and are tracked by DOE.

All text related to radioactive materials and waste characterization, definitions, descriptions and procedures are extremely unclear and confusing, inadequate!

Page 3-48, paragraph 3.1.1.6.2.2. Hazardous Waste
Re: accumulation points:..."KTF has one accumulation point". Please, describe where it is located and what specifically is stored there.

Page 3-57, paragraph Radiation Safety.
"All programs planning to use radioactive materials or machines which produce ionizing radiation must secure approval from the Radiation Safety Officer and the Radiation Safety Committee..."

Please, provide documentation regarding all granted approvals for PMRF for the usage of radioactive materials during the last 10 years. Also, please, specify what the projected use of radioactive materials will be at PMFR during the next 5 years? 10 years? Also for KTF!

3. And lastly I am requesting that the COMPLETE, UNEDITED videotapes, recorded at the DEIS Public Hearings in Waimea on April 25, 1998 and in Honolulu on April 28, 1998 be made part of the official record and Final EIS, and be made available to the general public at a reasonable cost.

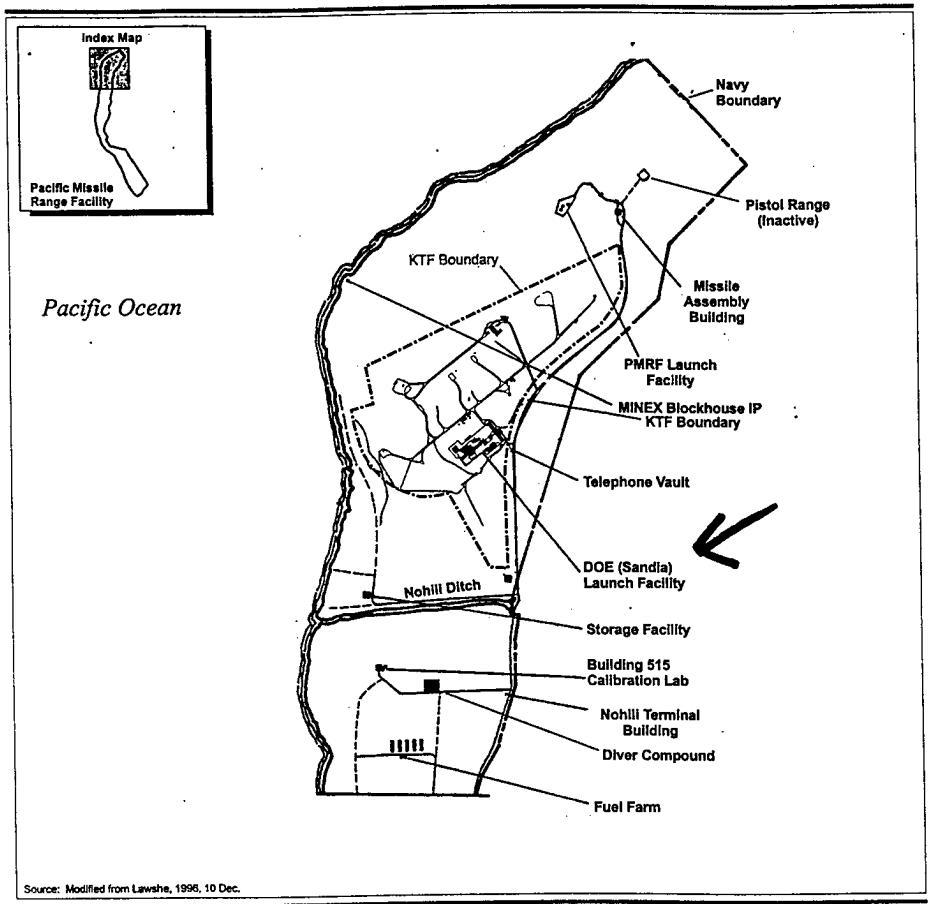
Please, mail answers to my concerns to: P.O. Box 1022
Koloa, Kauai, HI 96756

and please, mail the Final EIS to: P.O. Box 9646
Berkeley, CA 94709

Thank you. Sincerely,

Pamela Sihvola

Attacments: Pages: 3-3, 3-47, 3-48, 3-53, 3-57 from the DEIS.



Pacific Missile Range Facility/Main Base, North

Kauai, Hawaii

Figure 3.1-2

substantial danger to public health or welfare or the environment when released into the environment. Hazardous waste is further defined in 40 CFR 261.3 as any solid waste that possesses any of the hazard characteristics of toxicity, ignitibility, corrosivity, or reactivity, or a listed waste.

Solid waste is defined as any discarded material (in effect, abandoned, recycled, inherently waste-like, or no longer suitable for its intended purpose) that is not specifically excluded in 40 CFR 261.4. This definition can include materials that are both solid and liquid (but contained).

3.1.1.6.1 Region of Influence

The region of influence encompasses the current property boundaries of PMRF/Main Base and all geographical areas that might be affected by a release of a hazardous substance from No-action Alternative actions and TBMD and TMD related activities.

3.1.1.6.2 Affected Environment

3.1.1.6.2.1 Hazardous Materials

PMRF manages hazardous materials through the Navy's Consolidated Hazardous Materials Reutilization and Inventory Management Program (CHRIMP). CHRIMP mandates procedures to control, track, and reduce the variety and quantities of hazardous materials in use at facilities. The CHRIMP concept established Hazardous Materials Minimization Centers (HAZMINCENs) as the inventory controllers for Navy facilities. All departments, tenant commands, and work centers must order hazardous materials from the HAZMINCENs, where all such transactions are recorded and tracked. The exception to this is KTF, which obtains its hazardous materials through DOE channels. Hazardous materials on PMRF are managed by the operations and maintenance contractor. Hazardous materials managed through the CHRIMP program other than fuels are stored in Building 338. Typical materials used on PMRF/Main Base and stored at Building 338 include cleaning agents, solvents, and lubricating oils.

PMRF has management plans for oil and hazardous materials outlined in the *PMRF Spill Prevention Control and Countermeasures Plan* and the *Installation Spill Contingency Plan,* both of which also regulate tenant organizations and PMRF associated sites. (U.S. Army Space and Strategic Defense Command, 1992, Feb, p.3-41) Specifically, sites included are KTF, Makaha Ridge, Kokee, Kamokala Magazines, and Port Allen.

PMRF has developed programs to comply with the requirements of the SARA Title III and Emergency Planning and Community Right-to-Know Act (EPCRA). This effort has included submission to the State and local emergency planning committees of annual Tier II forms, which are an updated inventory of chemicals or extremely hazardous substances in excess of threshold limits. These chemicals at PMRF include jet fuel, diesel fuel, propane, gasoline, aqueous fire fighting foam, chlorine, used oil, paint/oils, and paint.

PMRF uses gasoline and diesel fuels to power range trucks and equipment. There are two gas stations on PMRF/Main Base: a Navy Exchange gas station with a capacity of 18,927 L (5,000 gal) and a second gas station in the vicinity of the Administrative Area

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with a capacity of 32,176 L (8,500 gal) for dispensing gasoline to military vehicles. (U.S. Department of Defense, 1991, Sep, p.13) Aircraft at PMRF utilize jet fuel, JP-10 and Jet-A. Jet-A and JP-10 fuels are available at the fuel farm near the airfield, and are delivered to the flight line in refuelers.

Operations at KTF on PMRF/Main Base involve the use of numerous hazardous materials. The bulk of these hazardous materials have been rocket fuels. Hazardous materials are also used for equipment maintenance (cleaning solvents) and small amounts of pesticides. Liquid rocket propellants (hydrazine and NTO) are transported, handled, and stored on KTF. (U.S. Army Program Executive Office, 1995, May, p.3-12) The liquid propellants described in this document, including IRFNA, would be handled following procedures similar to those used for hydrazine and NTO.

3.1.1.6.2.2 Hazardous Waste

PMRF/Main Base is a large-quantity generator with a USEPA number. Hazardous waste on PMRF is not stored beyond the 90-day collection period. In 1996, PMRF/Main Base generated 40,214 kg (88,654 lb) of hazardous waste. Pollution prevention programs at PMRF have resulted in a significant reduction in the amount of hazardous waste generated when compared to the 88,800 kg (195,766 lb) generated in 1990. Table 3.1.1.6-1 contains the summary of hazardous wastes generated and their quantities on PMRF/Main Base.

PMRF/Main Base has two accumulation points on base for hazardous wastes: Building 392 and Building 419. Building 392 accumulates all base waste except for otto (torpedo) fuel, a liquid monopropellant. Building 419 is the torpedo repair shop. At present, both buildings are not used at their maximum hazardous waste storage capacity. KTF has one accumulation point.

Makaha Ridge and Kokee generate only used oil, which is recycled. Port Allen generates used oil, paint wastes, and oily bilge water. The oily bilge water is processed through an oil/water purification unit and then is fed into the nearby sewage treatment plant. (Inouye, 1997, 16 Sep, p.1 through 2)

Under State regulations oil is not regulated as a hazardous waste, but is a hazardous substance subject to notification. (Naval Supply Systems Command, 1996, p.C-4) PMRF outlines management and disposal procedures for used oils and fuels in the Hazardous Waste Management Plan. Additionally, degraded jet fuel is used in crash-fire training exercises. In 1996, 2,521 L (666 gal) were used in this method. (Naval Supply Systems Command, 1996, p.C-4)

The majority of wastes are collected and containerized at PMRF/Main Base for direct off-site disposal through the Defense Reutilization and Marketing Office (DRMO) at Pearl Harbor within 90 days. (U.S. Army Space and Strategic Defense Command, 1992, Feb, p.3-41) The DRMO provides for the transportation and disposal of the wastes to the final disposal facility. (U.S. Army Program Executive Office, 1995, May, p.3-12) Not all of the hazardous materials on PMRF/Main Base are disposed of through the DRMO. Some materials are disposed of off-site by a contractor. (Naval Supply Systems Command, 1996, Appendix C, Part E)

PMRF/Main Base has a dispensary located in Building 278 which provides limited emergency care for active duty personnel. Medical wastes generated by the dispe are containerized and shipped to Barbers Point in accordance with Navy regulations (Inouye, 1997, 22 Oct)

3.1.1.6.2.11 Radioactive Waste Management

Radioactive materials are not considered a hazardous waste unless mixed with a listed RCRA hazardous waste, or the low level hazardous wastes exhibit the characteristics of a hazardous waste. Radioactive materials are treated as hazardous materials for administration. At least 4 to 6 months before any radioactive material may be brought onto PMRF, the Command must be notified through a Program Introduction document and approval granted. The PMRF Launch Ordnance Office will consider blast, sound, toxicity, radiation, and other effects that may constitute a hazard to personnel or facilities. There is presently no radioactive material on PMRF or any of the support facilities. (Inouye, 1997, 24 Oct)

3.1.1.6.2.12 Lead-based Paint Management

Lead exposure to humans and animals has been determined to be a health risk. To minimize exposure to lead from dust, paint, and soils, Section 12-148.1-1 of the Hawaii Code of Rules and Regulations incorporates the U.S. Department of Labor and Occupational Safety and Health Administration (OSHA) standard for lead in construction, 29 CFR 1926.62.

PMRF has initiated a lead paint inventory and management plan that characterizes the status and disposal of lead-based paint. Preliminary results of the survey found no lead-based paint in the newer residential units of base housing and none in the Child Development Center. Some lead-base paint was found in the older residential units of base housing. (Personal comm. J. Unmack with R. Inouye)

All facilities associated with PMRF follow its lead-based paint management plan. The exception is KTF, which follows DOE plans for the removal of lead-based paint wastes.

3.1.1.6.2.13 Asbestos Management

Asbestos is regulated by USEPA, OSHA, and the Hawaii Department of Labor and Industrial Relations. Specifically, asbestos is regulated under the Clean Air Act, the Occupational Safety and Health Act, TSCA, 40 CFR 763, and Title 12 of the Hawaii Code of Rules and Regulations, Chapter 145.1.

PMRF is currently conducting an asbestos survey for the family housing on the base. Preliminary results of the asbestos survey found asbestos in the floor tile and mastic of many of the office buildings on PMRF. No asbestos was found in the Child Development Center. (Personal comm. J. Unmack with R. Inouye). PMRF manages asbestos in accordance with the base asbestos management plan. Prior to any construction projects, areas to be disturbed are surveyed for asbestos, and any asbestos is removed, prior to disturbance, by a certified asbestos contractor.

specifications of their laser and a detailed description of the planned use. An independent safety analysis is made by the Laser Safety Officer of the Naval Air Warfare Center, Weapons Division. Laser operations will comply with laser safety requirements in the Range Commanders Council document RCC-316-97. Currently, no lasers are used at PMRF.

Explosive Safety

Ordnance safety includes procedures to prevent premature, unintentional, or unauthorized detonation of ordnance. Any program using a new type of ordnance device for which proven safety procedures have not been established requires an Explosive Safety Approval before the ordnance is allowed on PMRF or used on a test range. This approval involves a detailed analysis of the explosives and of the proposed operations, procedures, and facilities for surveillance and control, an adequacy analysis of movement and control procedures, and a design review of the facilities where the ordnance items will be handled.

Radiation Safety

All programs planning use of radioactive materials or machines which produce ionizing radiation must secure approval from the Radiation Safety Officer and the Radiation Safety Committee of the Naval Air Warfare Center, Weapons Division, before such operations can be conducted at PMRF. The Radiation Safety Officer reviews proposals, identifies radiation sources and their intended use, and recommends essential conditions to ensure safety to the Radiation Safety Committee. The committee then approves, conditionally approves with additional requirements, or denies the request for the use of radioactive materials. All programs using ionizing radiation materials at PMRF must meet the Nuclear Regulatory Commission's license requirements, unless those programs are uniquely military, and then the Navy RAD-10 license requirements apply. Currently, no radioactive material is used at PMRF.

Electromagnetic Radiation Management

Electromagnetic radiation zones designated around transmitter sites and tracking radars are required where high density electromagnetic power may constitute a hazard to personnel (Hazards of Electromagnetic Radiation to Personnel [HERP]), explosives (Hazards of Electromagnetic Radiation to Ordnance [HERO]), or fuels (Hazards of Electromagnetic Radiation to Fuels [HERF]), or may interfere with nonmilitary electronic equipment. All programs at PMRF are conducted in accordance with COMPMTCINST 5100.15, Radiological Safety Manual (U.S. Army Program Executive Office, 1995, May, p.4-13). The hazard levels associated with HERP are promulgated by OPNAVINST 5100.23B Chapter 3, Navy Occupational Safety and Health Program Manual. PMRF uses a combination of establishing safety zones and conducting sector blanking in occupied areas to avoid potential electromagnetic radiation (EMR) exposure. To ensure exposure risks to personnel are minimal, the Navy conducts regular radiation hazard surveys before any modifications to a unit are made or when new radar equipment is installed. In addition, all radar units have red (radar unit is on) and blue (radar unit is emitting EMR) warning lights. EMR generated from PMRF radar units does not expose the public to any hazardous radiation.

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DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1124
23 OCT 1998

Ms. Pamela Sihvola
PO Box 1022
Koloa, Kauai, HI 96756

Dear Ms. Sihvola:

Thank you for taking the time to participate in the public hearing process for the Pacific Missile Range Facility Enhanced Capability Environmental Impact Statement (EIS). Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

While the Navy does not claim that the proposed enhancements will have a substantial impact on employment or the local economy, we recognize that business and civic leaders consider the proposal to enhance PMRF's capabilities a positive development for the economic stability of Kauai and the larger Hawaii community. We look forward to continuing to be a good neighbor to the people of Kauai.

1. Regarding Niihau, PMRF conducted a scoping meeting on Niihau on May 20, 1997 to gather input on proposed Niihau activities directly from residents. A second informational meeting was held on Niihau on June 23, 1998 to provide residents with an overview of the Draft EIS analysis and again gather testimony directly from them. We believe that since Niihau residents are most affected by our actions on the island, it is appropriate to speak directly with them. We believe that these meetings, coupled with the testimony of several Niihau residents at the Waimea public hearing on April 25, 1998, indicate a full and complete understanding of the proposed action and its potential impacts. In addition, Niihau elders assisted the Navy in identifying areas where Navy activities could occur on Niihau. Cultural and natural resource surveys have been conducted with Niihau residents in these areas. Within these areas, as specific siting activities proceed, more detailed surveys will be conducted.

2. Regarding DOE/Sandia operations at KTF, there are no radioactive materials at PMRF or KTF that require regulatory licensing. The only exception is those unregulated sources found in household smoke detectors. As described in the attached letter from DOE's Don Berkowitz, "the Department of Energy has never introduced, nor has any plans in the future to introduce nuclear weapons or waste to

the Kauai Test Facility." You may contact Mr. Berkowitz regarding request for additional environmental documentation.

Sandia commenced operations at KTF in 1962 by launching instrumented probes. Since all launches and support activities at KTF have been of a conventional (non-nuclear) nature, no radioactive work authorizations (RWA) have been issued for the site.

Most recently Sandia has supported both DOE and DOD programs including:

- Launching of rockets carrying experimental payloads for observation by the Air Force Marine Optical Station (AMOS) located on Mt. Haleokola;
- Conducting sub-orbital co-experiments with launches from Vandenberg Air Force Base in California;
- Performing ICBM-type launch simulation targeted to ocean areas in the US Army Kwajalein Atoll (USAKA), Republic of the Marshall Islands;
- Conducting scientific experiments on phenomena occurring in the upper atmosphere over the mid-Pacific; and,
- Implementing high-velocity water impact and underwater trajectory experiments in conjunction with US Navy instrumentation capabilities.

Enclosed are copies of the KTF EA and Post Iniki Environmental Survey Report.

Page 3-53

Regarding Radioactive Materials Waste Management, as stated previously, there are no radioactive materials at PMRF/KTF. Paragraph 3.1.1.6.2.11 "Radioactive Waste Material" on page 3-53 of the Draft EIS is included to indicate that if radioactive material were to be brought to PMRF it would require special handling under regulatory guidelines similar to that of other hazardous material. The Commanding Officer at PMRF must be notified in writing using standard range documentation, such as a Program Introduction document and grant approval prior to transport. Over the last ten years, there have been no Program Introduction documents that identify radioactive materials requiring regulatory licensing nor are there any requests pending.

Page 3-47

The KTF has a vigorous health and safety program which complies with DOE and DOD requirements. The KTF conducts operations in accordance with the "Sandia National Laboratories, 1998, ES&H Manual, MN471001, Issue BL, Sandia National Laboratories, Albuquerque, New Mexico" and safe operating procedures specific to operations at the KTF. The regulatory compliance requirements are detailed in 6.0 "Applicable Environmental Regulations" of the Kauai Test Facility (KTF) Environmental Assessment (DOE/EA-0492).

Page 3-48

KTF is a "conditionally exempt" small quantity generator. KTF's hazardous waste accumulation point is located in Building 650 at KTF. Hazardous materials stored include batteries, gasoline, paint, oil, diluted hydrazine, and diluted Nitrogen Tetroxide (NTO). All waste generated are managed under RCRA-generator ID number HI0000363309.

Page 3-57

Range Safety, Radiation Safety-Again, as previously stated, there are no radioactive materials requiring regulatory licensing nor are there any foreseeable plans to have any at PMRF or KTF. This particular section of the Draft EIS simply indicates that there are procedures in place should the need to address imaging radiation arise.

You should have already received unedited videotapes of the Waimea public hearings conducted on April 25, 1998. Complete unedited transcripts of both the Waimea and Oahu public hearings are included in the EIS as Chapter 10.

Let me assure you that those of us who have the privilege of working at PMRF want to do everything we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0304

Department of Energy
Washington, DC 20585

June 4, 1998

Mr. Ted Wolff
Sandia National Laboratory
Albuquerque, NM 87185-1313

Subject: ***Linking Legacies* and the Kauai Test Facility**

Dear Mr. Wolff:

Thank you for your recent inquiry concerning Kauai Test Facility (KTF) data listed on pages 79, 81, and 209 of the Department of Energy report *Linking Legacies, Connecting the Cold War Nuclear Weapons Production Processes to Their Environmental Consequences (report number DOE/EM-0319)*. Before I provide the background necessary to address your concern, let me first unequivocally state that the Department of Energy has never introduced, nor has plans in the future to introduce nuclear weapons, materials, or waste to the Kauai Test Facility.

The *Linking Legacies* report was compiled to address Congressional language in the 1995 National Defense Authorization Act directing the Department of Energy (DOE) to describe the waste streams generated by each phase of the nuclear weapons production process. The Office of Environmental Management examined its materials in inventory, surplus facilities, contaminated environmental media, and wastes and attributed them to nuclear weapons production processes and to non-weapons processes.

Non-weapons processes included Department of Energy and predecessor agency missions that were unrelated to the nuclear weapons program, such as the civilian nuclear power program and the naval nuclear propulsion program. Weapons production processes were further divided into eight steps:

- Uranium Mining, Milling, and Refining
- Isotope Separation (Enrichment)
- Fuel and Target Fabrication
- Reactor Operations
- Chemical Separations
- Weapons Component Fabrication
- Weapons Operations
- Research, Development, and Testing

The KTF's existence is mandated by Safeguard C of the 1963 "Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water" (Limited Nuclear Test Ban Treaty). Congress imposed the safeguard to ensure that certain Pacific support facilities, including the Kauai test facility, be maintained to support the resumption of nuclear testing if world events make it necessary. Although no nuclear weapons were ever launched from KTF and none are proposed, KTF rockets with high altitude instrumentation probes which gather data during nuclear events would once again be launched if nuclear testing were to resume in other

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Pacific locations. As such, contaminated environmental media at KTF fall within the weapons production category because the mission supported Research, Development, and Testing of nuclear weapons. Test sites in the Research, Development, and Testing step are broken out into nuclear and non-nuclear sub-categories in Appendix B (page 206) and Appendix C (page 209) to differentiate KTF and other test sites that did not contain radioactive materials from sites where nuclear events actually occurred.

The report (p. 79-81) identifies 1,400 cubic meters of contaminated solid media and 5,700 cubic meters of contaminated water present at the facility. In the tables where these values appear in *Linking Legacies*, the report does not indicate the type of contamination (the volumes listed include the total hazardous chemical and/or radioactive and or mixed constituents as well as the affected media). These inventories were provided by the Office of Environmental Restoration's Core Database (1996 version), which indicates that all KTF volumes stipulated contain only chemically hazardous constituents, and no radioactivity.

Although not addressed in *Linking Legacies*, the Department of Energy submitted the results of the Kauai Test Facility site investigation to Region 9 of the Environmental Protection Agency (EPA) on May 3, 1995. Two of the three release sites identified, a drum storage rack and a photo shop, did not exhibit contamination above background levels. The third release site, a rocket pad area, exhibited concentrations of arsenic (96 parts per million) and lead (270 parts per million) that exceeded background levels but were below EPA action levels. No evidence of radioactive contamination was evidenced anywhere at this site. A No Further Action decision was issued by the EPA to KTF on October 30, 1996.

I hope this information helps clarify the information about the Kauai Test Facility in *Linking Legacies*. If you require further information related to the *Linking Legacies* document, please contact Steven Livingstone of my staff at (202) 586-9874.

Sincerely,

Dan Berkovitz
Deputy Assistant Secretary
Office of Planning, Policy and Budget

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

September 30, 1996

Mr. John Gould
U.S. Department of Energy
Albuquerque Operations Office
P.O. Box 5400
Albuquerque, New Mexico 87115

OCT 03 [illegible]

RE: Kauai Test Facility EPA ID No.: HID984469908

Dear Mr. Gould:

Enclosed are the results of the Site Inspection (SI) documentation review by the U.S. Environmental Protection Agency for the U.S. Department of Energy regarding the Kauai Test Facility. The purpose of the review was twofold: 1) to determine if the facility meets CERCLA requirements as defined in Section 120; and 2) to determine if site conditions at the facility pose a significant threat to human health and the environment such that it warrants placement on the National Priorities List (NPL).

You have submitted enough information for the EPA to certify that the SI requirements have been met for the facility. This decision will be entered into the CERCLIS database. Based on the submitted information, EPA was able to make a decision that no further action is warranted at this time under CERCLA. You should be aware that if additional information is provided to the EPA that impacts the status of the no further action decision, this site may be reevaluated. A copy of our evaluation is enclosed.

EPA is referring this site to the State of Hawaii Department of Health's Hazard Evaluation and Emergency Response Office for any further oversight. EPA is recommending that periodic reevaluation for environmental contamination from or at this site is warranted, particularly because of the continued use of the Launcher Field which contains 16 launcher pads. The exhaust and explosions associated with rocket launches are the primary causes of metals and other hazardous chemical releases at the Launcher Field. Of some concern is potential contamination after heavy rainstorms in the water runoff from the Launcher Field into the ditches that empty into the ocean approximately 2 miles south of the site. The downstream pathway includes habitat for several federally designated endangered or threatened species. Please see the enclosed report for further details.

Should you have any questions pertaining to this matter, please contact me at (415) 744-2328 in the EPA Region IX Superfund Office of State Planning and Assessment Section.

Sincerely,

Michael Ardito

Michael Ardito
Hawaii State Project Officer for Superfund

Enclosure

cc: Steve Armann, Hawaii Department of Health, HEER Office

Printed on Recycled Paper

P-W-0307

ARTHUR K. DEFREES
P.O. BOX 42
ANAHOLA, HI
96703

VIDA MOSSMAN
P.M.R.F. PUBLIC AFFAIRS
BOX 128
KEKAHA, HI
96752

APRIL 19, 1998

DEAR VIDA

ALOHA FOR THE RECORD MY NAME IS ARTHUR K. DEFREES JR. AND MY RESIDENCE IS 3822 MAKAEO ROAD, ANAHOLA, HI 96703

I HAVE SUPPORTED MANY OF YOUR PROJECTS AND MOST OF ALL I AM IN FAVOR OF THIS UP COMING PROJECT, W

PACIFIC MISSILE RANGE FACILITY/ OF BARKING SANDS, KAUAI, HAWAII HAS BEEN A BLESSING FOR THE ISLAND OF KAUAI.

WHY? ECONOMICALLY IN THE 60, KAUAI HAD A VIABLE PINEAPPLE INDUSTRY WHICH WAS NO 1.
NO 2. SUGAR CANE INDUSTRY
NO 3. DIVERSIFIED AG. "
NO 4. SMALL BUSINESS "
NO 5. TOURIST "

ALSO THE LAWAI PINEAPPLE CANNERY CLOSED DOWN OPPERATION AND ALSO KEKAHA SUGAR PLANTATION CLOSED ITS PANEOLA OPPERATION AND MANY OF THESE WORKERS WORK FOR P.M.R.F, AND KNOW ARE RETIRED

AND ALSO IN THE LATE 1960, I WAS THE LEAD, I.L.W.U. UNION ORGANIZER AND THE OTHER ORGANIZERS WERE FRANKIE DECOSTA OF KEKAHA SUGAR PLANTATION AND EDWARD RITA FROM KALAHEO AND ALFRED COSTELLO FROM MCBRYDE AND BOTH OF THEM WORK FOR MCBRYDE SUGAR COMPANY, OUR SUPERVISOR WAS LELAN NIELSEN.

OVER

VI. OFF MUSSMAN
P.M.R.F PUBLIC AFFAIRS
BOX 128
KEKAHA, HI - 96752
APRIL 19, 1998

THE I.L.W.U. PETITIONED FOR AN ELECTION WITH NATIONAL LABOR RELATIONS BOARD OR N.L.R.B., ALSO THE I.B.E.W. FRANCES DECOSTA AND ALSO THE TEAMSTERS UNION, P.M.R.F WASN'T OUR JURES DICTION, WE THE I.L.W.U JUST WANTED OUR PAST MEMBERS TO BE COVERED BY A UNION, BECAUSE EVERY (FIVE) YEARS, NO BODY NEW WHO THE NEW CONTRACTOR WOULD BE.

FOR THE ISLAND OF NIIHAU, THE ROBINSONS AND MOST OF ALL THE HALEMEIMAS OF NIIHAU, APPROVED THIS PROJECT.

ALSO BUZZY HONG OF THE HAWAII BUILDING AND TRADES UNION, HAS SUBMITTED INFORMATION TO OTHER TRADE UNIONS.

PACIFIC MISSILE RANGE FACILITY AGAIN, HAS BEEN VERY GOOD FOR THE ISLAND OF KAUAI, AND ITS MANY EMPLOYEES, AND MOST OF ALL THE COMMUNITY SUPPORTS P.M.R.F

TO ALL THOSE WHO HAVE PUT THIS PROJECT TOGETHER, WE THE ISLAND OF KAUAI THANK YOU, AND MAY OUR GREAT ARMY WATCH AND PROTECT ALL OF YOU.

ALOHA

ARTHUR K. DEFRIES JR.

9-421

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/ 0909
23 OCT 1998

Mr. Arthur K. Defries
PO Box 42
Anahola, HI 96703

Dear Mr. DeFries:

We appreciate your expression of support for the mission of PMRF and the proposal to enhance its capability to perform theater ballistic missile defense testing. We agree that a strong partnership with our neighbors in both technical and civic areas is beneficial to both Kauai and the larger Hawaiian community and the Navy. Congress has recognized the benefits of the technology base and extensive off-shore range area existing at PMRF in identifying it as the primary area to test the Navy's theater ballistic missile defense systems.

The Navy looks forward to continuing its positive relationships with business, civic, and other organizations in Hawaii as it performs its primary mission as a test and training range for sophisticated Navy systems to protect our armed forces and ensure our national security.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0307

9-422

Vida Mossman
Pacific Missile Range Facility (PMRF)
P. O. Box 128
Kekaho, HI 96752-0128

May 21, 1998

Comments on the Pacific Missile Range Facility (PMRF) Enhanced Capability Draft Environmental Impact Statement (DEIS)

These comments are particular to the Proposed Alternative and how it will affect the Candidate Site of Tern Island, French Frigate Shoals, Hawaiian Islands National Wildlife Refuge. However, they are broad enough in nature to also pertain to activities proposed for Johnston Atoll and other sensitive, fragile, wildlife areas.

General Comments

The DEIS continually states that the Director of the U. S. Fish and Wildlife Service (USFWS) must issue a finding of compatibility in order to carry out the Proposed Alternative on a National Wildlife Refuge. In a letter dated 23 June 1997 (pages 7-18, 7-19 of DEIS), the USFWS specifically asked that the PMRF should assess the potential impacts associated with 1) site preparation and installation of infrastructure; 2) actual program testing and training operations; 3) increased numbers of personnel; and 4) increased air, land and ship traffic. The DEIS vaguely addresses numbers 1, 2 and 4, and does not address number 3 at all. The USFWS also asked that the DEIS consider how introduction of alien species will be prevented; the DEIS gives no consideration to this concern. Lastly, the USFWS states that it would be unlikely that the Proposed Alternative would be found compatible with use of a National Wildlife Refuge, and the U. S. Navy publicly stated on 28 April 1998 that these refuges were "fall-back options." Why then, are these sites still being considered as part of the Proposed Alternative?

The DEIS is much too vague and general in description of its potential impacts on Tern Island resulting from the Proposed Alternative. For example, in PMRF documents dated 10 January 1997, PMRF describes the need for 6-15 personnel stationed on-site for 1-3 weeks per launch (incidentally, these documents are not included in the appendices of the DEIS). Yet, the DEIS describes that only 2 hours (see 4.3.1.8.2.2 of DEIS) will be needed from existing USFWS staff to supervise/consult with PMRF personnel. Obviously 2 hours versus three weeks (the time apparently needed for preparation of each launch, and not the launch itself) would have significantly different impacts on the site and its staff, and the USFWS needs these specifics to make an accurate determination of compatibility of the Proposed Alternative.

Specific Impacts of the Proposed Alternative on the Candidate Site

Table 2.5-3 states that no adverse impacts on Air Quality will occur. However, in a letter date 3 May 1998, Michael Jones describes emissions from STARS launches that exceed immediately dangerous levels to life and health. Also, exhaust gas concentrates exceed those acceptable by the guidelines of the State of Hawaii. Both situations clearly demonstrate adverse impacts on air quality, as well as potential health and safety hazards.

In its determination of no adverse impact for Airspace (Table 2.5.3), the DEIS considers only other human air traffic and does not consider the effects of increased air traffic by the Proposed Alternative to flying seabirds on the island, of which over 500,000 are present during some periods of the year. PMRF crews of 6-15 personnel will require a minimum of 1- 4 flights each launch, if an aircraft similar to the one used by USFWS is used. If any larger aircraft is used it will increase the potential for bird strikes and threat to human health and safety from collision with birds and/or resulting plane crashes.

Table 2.5.3 does not measure the effects of construction activities on seabirds in its assessment of impacts on Biological Resources; nor does it consider 1) the effect of a potential launch site on the east end of the island, where over 100 pairs of Great Frigatebirds as well as Red-footed and Masked Boobies nest, or 2) any contingencies for preventing entrapment of seabirds in fencing surrounding the launch pad. Though there may be just four launches, the fences presumably will remain surrounding the launch pads. Who will be responsible for patrolling these areas to prevent entrapments while PMRF personnel are not on site?

Table 2.5.3 does not specify any adverse effects to the Threatened Green Sea Turtle, whose hatchlings are attracted to light, and may crawl toward the launch site instead of toward the ocean when hatching. The DEIS must specifically describe the activities scheduled by PMRF personnel in order for the USFWS to determine whether the Proposed Alternative is compatible.

No potential impacts on seabirds are discussed pertaining to the construction of the launch pad discussed in 2.3.4.3.1.2, nor are potential impacts on seabirds discussed in relation to construction of the buried cable, running the entire length of the north side of the island. It is difficult to believe that 1) only 0.7 acres of habitat will be disturbed and 2) no nesting seabirds will be killed considering the scope of these construction activities, yet the DEIS does not mention this possibility.

Table 2.5.3 does not consider potential adverse impacts on bird life, endangered Hawaiian Monk Seals and threatened Green Sea Turtles, in relation to launch logistical support transportation to and from the island. Instead, the DEIS discusses only those impacts related to actual launches.

Table 2.5.3 does not consider logistical launch support missions to and from the site in its determination of no adverse impact on human Health and Safety.

Table 2.5.3 does not consider the possibility of PMRF and USFWS activities conflicting with respect to Land Use. Currently, activities are heavily restricted to protect the fragile nature of Tern Island, and the number of non DOI personnel traveling to Tern Island for non-management purposes is highly regulated. The DEIS does not explain how the Proposed Alternative will avoid conflicting with scheduled activities of USFWS/NMFS personnel, nor does it describe consequences for PMRF personnel found in violation of the Refuge Manager's island restrictions.

Table 2.5.3 does not describe who ascertained that Transportation to and from Tern Island/French Frigate Shoals would have a beneficial impact on the site, but it most certainly could not have been USFWS personnel. As stated in the DEIS (page 2-44), flights and cruises to and from Tern Island are highly restricted and are scheduled around breeding seasons of the hundreds of thousands of seabirds nesting there. There are not more frequent flights or cruises to the island because an increase in these activities would have potential adverse impacts on wildlife such as 1) potential for increased number of bird strikes; 2) potential for increased risk to human safety; 3) potential for toxic spills from seagoing vessels; 4) potential direct adverse impacts on habitat resulting from toxic spills in an area where over half of the remaining Endangered Hawaiian Monk Seals pup; 5) potential direct adverse impacts resulting from toxic spills on individual Endangered Hawaiian Monk Seals; 6) potential direct adverse impacts on the Threatened Green Sea Turtle nesting habitat resulting from toxic spills; 7) potential adverse impacts on habitat rich in marine life and essential for the hundreds of thousands of seabirds that fish the waters surrounding the site; 10) increased potential for infestation by exotic plants, insects, mammals, reptiles, etc.

The difficulties associated with logistical support of the Tern Island field station (i.e. scheduling flights, maintaining the correct amount of cargo weight on the flights, loading, shipping and in-flight contact by Refuge staff) will not be ameliorated by implementing the Proposed Alternative; they will only occur more frequently with more frequent visits to the island.

Table 2.5.3 states that impacts to Visual Resources would not be adverse or out of character. However, the Proposed Alternative describes construction of a launch pad in the center of a Great Frigatebird and Red-footed Booby colony, which would most certainly be out of character. Additionally, the DEIS is incomplete in its assessment of the physical structures existing on the island. In fact, no new facilities have been constructed on the island since it was returned to the Department of the Interior in 1979. Every effort to reduce man-made debris has occurred however, and the Woodshop, two paint sheds, all NDB towers and the diesel tanks have been removed. Plans for removal of the Generator building are pending. It is not in the Tern Island Management Plan to increase the number of man-made structures, and any new construction by PMRF would impact Visual Resources by decreasing the available seabird nesting habitat already in existence.

Table 2.5.3 does not consider potential adverse impacts to Water Resources with respect to the potential of diesel fuel, oil, or other toxic spills resulting from air or marine accidents.

Specific Comments on Section 3.3

Page 3-156 is incomplete in its description of the history of the site. The Northwestern Hawaiian Islands were originally set aside in 1909 by President Theodore Roosevelt as bird refuges. They were then taken by DOD prior to WWII. During their occupation of Tern Island, all seabirds were killed and any new birds were harassed or killed and not allowed to nest anywhere on the island.

3.3.1.3.1- incomplete. Potential impacts of the Proposed Alternative on travel corridors to and from the island by both aircraft and seagoing vessels must be considered in the Region of Influence section.

3.3.2.3.2.2 - The Bristle-thighed Curlew is a rare species that winters at French Frigate Shoals and may be adversely impacted by the Proposed Alternative.

There is no commercial fishing allowed within 50 miles of French Frigate Shoals, to protect feeding, nesting and/or pupping grounds of the wildlife found there.

3.3.1.8.2.1 - Tern Island is unique in its ability to function as a field station for seabird, Monk Seal and Green Sea Turtle researchers. Though the refuge is not open to the public, several environmental organizations and media groups are scheduled to visit the island each year, so that the public can be informed of the importance of the refuge. In this way, the public has access to the refuge, via books, films, magazine articles and other documentaries. The potential impacts of the Proposed Alternative could destroy the appeal for these organizations to visit the island and then the connection with the general public will lost.

3.3.1.12.2 - This section is outdated; the woodshop and diesel tanks have been removed, and the generator building is slated for removal.

4.3.2.3.2.- Tern Island is also critical nesting habitat for 90% of the Threatened Hawaiian Green Sea Turtles.

4.3.1.2.1 - There will most definitely be impacts resulting from the Proposed Action; half of the Great Frigatebird colony, one third of the Red-footed Booby colony, the majority of 2,500 pairs of Brown Noddies, most of the Bulwer's Petrels and Masked Boobies, approximately half of the 100,000 pairs of Sooty Terns, and all the migratory Wandering Tattlers nest within the designated Proposed Alternative site.

This section does not specify limited use of aircraft.

Potential for introduction of insects, plants, rats, snakes and other exotics which would impact French Frigate Shoals are not considered in this section.

4.3.1.7.2 - The health and safety section does not adequately address the potential for bird strikes, nor does it consider the isolation of Tern Island and lack of emergency medical facilities. One trained medical technician is not adequate to provide medical attention for personnel associated with launches.

4.3.1.8.2.1 - This section completely ignores launch logistical support missions which would undoubtedly require more than 30 minutes of refuge staff time. In a typical USFWS/NMFS flight, a total of 5 hours is needed to: 1) maintain radio contact with pilot in flight; 2) prepare runway for landings and take-offs, including grading, loafing bird removal, debris removal and emergency equipment preparation); 3) arrival and departure preparations of personnel.

9-424

4.3.1.8.2.2 - The potential impacts on recreation account only for the launch time and do not consider logistical launch support missions including: 1) Oahu office logistical coordination with the field site; 2) Tern Island field station coordination.

4.3.1.9.2 - Potential impacts from noise associated with the Proposed Alternative does not consider noise associated with logistical launch support missions required for each of the 4 launches.

The final EIS should reflect these comments and remove plans to use Tern Island, Johnston Atoll, or any other wildlife refuge from the Proposed Alternative.

Sincerely,

Jennifer Lynn Megyesi

Jennifer Lynn Megyesi
RR1 Box 139E2
South Royalton, VT 05068

Sheila Conant

Sheila Conant, Ph. D.
Professor
Department of Zoology
University of Hawaii at Manoa
3663 Alani Drive
Honolulu, HI 96822

cc: Sec. Bruce Babbit
Rep Patsy Mink
Bill Ashe
Jerry Leinecke

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1128
23 OCT 1998

Dr. Sheila Conant
Department of Zoology
University of Hawaii at Manoa
3663 Alani Drive
Honolulu, HI 96822

Dear Ms. Conant:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

General Comments

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Specific Impacts

Table 2.5-3: The Strategic Target System Environmental Monitoring Program report for the 26 February 1993 launch of the Strategic Target System from PMRF analyzed pre- and post-launch air quality and confirmed there were no exceedances of guidance levels at any public exposure location. Likewise, as described in the Air Quality sections of the EIS, we believe that there will be no adverse effects on air quality as a result of the no action or proposed action alternatives.

All shipments to Tern would have been made by barges. No flights in addition to U.S. Fish and Wildlife Service (USFWS) scheduled flights would have occurred.

As to threatened and endangered species such as the monk seal and green sea turtle, we are in consultation with USFWS and the National Marine Fisheries Service under the Endangered Species Act as indicated in, Appendix K. Section 4.3.1.3.2.2 has been revised to discuss in greater detail the effects of lighting sources on the green sea turtle. With respect to Niihau, during operations involving beach landings, a Navy or Niihau Ranch representative will survey beach areas for nesting turtles or monk seals. In

cases where monk seals, turtles, or turtle nests are observed, efforts would be made to divert to an alternative landing site.

Specific Comments on Section 3.3

We appreciate the information on the history of the Northwestern Hawaiian Islands.

Your comments on Section 3.3 are not specifically addressed here because Tern Island and Johnston Atoll have been removed as alternatives.

Let me assure you that we who have the privilege of working at PMRF want to do all we can to gain your support and trust.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0311

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

William O Shumway
Elizabeth A. Shumway

1204 South East St
Amherst, Ma. 01002

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1 1 2 9
23 OCT 1998

Mr. and Mrs. William O. Shumway
1204 South East Street
Amherst, MA 01002

Dear Mr. and Mrs. Shumway:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0313

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

Heather Wolcott

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1130
23 OCT 1998

Ms. Heather Wolsey
4 Bangs Street
Miller's Falls, MA 01349

Dear Ms. Wolsey:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0314

9-427

P-W-0318

31 May 1998

Here are some comments relevant to the Pacific Missile Range Facility (PMRF) Enhanced Capability Draft Environmental Impact Statement (DEIS). These comments are based on a review of several documents referred to in the DEIS. These documents arrived at UH Hamilton Library on 19 May; therefore there was insufficient time to review them in detail before the 26 May deadline for public comment. These comments supplement those I previously submitted which are dated 3 May, 15 May, and 22 May.

The Oct. 1995 U.S. Army Kwajalein Atoll (USAKA) Temporary Extended Test Range Environmental Assessment examined the impacts of TMD tests involving launches of target missiles from Bigen Island in Aur Atoll (about 400 kilometers east of USAKA) and launches of Patriot interceptors from USAKA. Eight target launches were envisioned in a 5-year period. PMRF was not considered as an alternative for these tests. Alternatives involving launches of target missiles from specialized barges near USAKA of near Eglin AFB in Florida were rejected because of costs and schedule impacts. Presumably the cost factors would also favor USAKA for future tests involving upgraded Patriot interceptors. Therefore, it seems relevant for the final PMRF EIS to consider alternatives to PMRF for launching land-based area interceptors such as Patriot and its upgrades.

The Dec. 1997 Theater Ballistic Missile Targets Programmatic Environmental Assessment examined impacts of TMD tests involving launches of target missiles (up to 30 per year) from Vandenberg Air Force Base in California. Some of these TMD tests could involve interceptors launched from Navy ships off-shore. Therefore, the final PMRF EIS should compare impacts at PMRF with those for similar TMD tests associated with Vandenberg AFB as well as those associated with USAKA and with Eglin AFB. (See comment 1 in my comments dated 3 May.)

The Nov. 1997 Programmatic Environmental Assessment (PEA) for the Air Drop Target System and the Dec. 1996 Alternate Air Launched (AltAir) Ballistic Target Environmental Assessment both note treaty restrictions on targets for TMD tests. The Nov. 1997 PEA argues that air drops have advantages over launches at sea and concludes on page 2-17, "Furthermore, there is a possibility Air Drop technology can eventually be adapted in a treaty-compliant manner for long-range (more than 600-km [373-mile]) target launches, but funds spent developing short/mid-range sea-launched target capability would offer no such follow-on utility." Although there is no detailed discussion of treaty compliance in this document, this sentence implies that it is questionable whether air-drop targets with ranges exceeding 600 km would be treaty-compliant. The final PMRF EIS should address this issue for air-drop targets that would be used near PMRF. (See also comment 9 in my comments dated 3 May.) The final PMRF EIS should also clearly state treaty restrictions on targets launched at sea. The Dec. 1996 AltAir Environmental Assessment Executive Summary asserts that, "Launching targets from sea-going vessels at ranges exceeding 600 km is unequivocally prohibited by U.S. treaty obligations."

The 3 Dec. 1996 Draft Navy TBMD Program Range Upgrade Requirements document from the Theater Air Defense Program Executive Office is somewhat cryptic because it seems

9-428

to contain slides that were used for some presentation. It also appears that all of the cost figures were covered over before the copy was made. Nevertheless, there is important and relevant information in this document. On the page labeled Figure 1.1.2 with title "Extended Range Geometry," Palmyra is indicated with a line connecting it to PMRF, but it is not among the sites listed in Table ES-1 in the PMRF Enhanced Capability Coordinating Draft Siting Report. Is Palmyra being considered as a possible launch site? The table giving distances from PMRF near the edge of Figure 1.1.2 gives 3,602 km to Wake Island, which is larger than the value of 3,498 km given in Table ES-2 of the PMRF Siting Report. It is important to clarify which number is correct because launches of TMD targets with range exceeding 3,500 km are prohibited by the Sept. 1997 ABM-TMD Demarcation Agreements.

The 3 Dec. 1996 Range Upgrade Requirements document makes clear that the upgrades to instrumentation (e.g. radars and other sensors, telemetry) needed for TMD tests depend upon whether the intercept is to occur within range of PMRF sensors on Makaha Ridge. Therefore, it seems important for the final PMRF EIS to distinguish between scenarios in which the intercept is to occur within 140 km of PMRF from those in which the intercept is to occur off-range, to compare the impacts of these two options, and to indicate alternatives for each of these options at other test ranges.

My final comment concerns the lack of timely public access to the PMRF Enhanced Capability Coordinating Draft Siting Report. This is an important document because it indicates that additional launch sites have already been identified for TMD tests of Navy theater-wide interceptors. This document is dated 3 March 1997. A memo (a copy of which is enclosed) accompanying this document from Edd V. Joy of EDAW to Randy Gallien at the U.S. Army SSDC contains an attached list of names of people to whom the document was sent on 3 March 1997. Some of the names (e.g. Averiet Soto, Vida Mossman) on this list are people at PMRF, some are people in other federal agencies (e.g. Marc Webber of the U.S. Fish & Wildlife Service) , and some (e.g. Keith Robinson, Bruce Robinson) are private citizens. Why wasn't this document made available to the public at the same time? On 2 April 1997, I met separately with Rep. Patsy Mink and with Marc Webber to try to get information about launch sites being considered. Mr. Webber suggested that I ask Averiet Soto for details. The next day I talked to Mr. Soto on the phone. I certainly would have asked to see the Siting Report if I had known of its existence then. The final PMRF EIS should address the additional launch sites identified in the Siting Report and explain why this report was not made available to the public during the scoping meetings in June of 1997.

Michael Jones
Dept. of Physics & Astronomy
Univ. of Hawaii
2505 Correa Road
Honolulu, Hawaii 96822

ATTACHMENT

EDAW

Landscape Architecture
Planning
Urban Design
Environmental Analysis
Site Engineering
Graphic Design

SSDC-0120-96-0039
3 March 1997

U.S. Army Space and Strategic Defense Command
P.O. Box 1500
Huntsville, AL 35807

Attention: Randy Gallien, CSSD-EN-V

Contract Number: DASG60-94-C-0120
Task Assignment Number: 96-10
CDRL Sequence Number: A00B
Subject: **PMRF Enhanced Capability Coordinating Draft Siting Report**

EDAW, Inc.
200 Sparkman Drive
Huntsville, Alabama 35805
205 430-5560
FAX 205 430-5561

Dear Mr. Gallien:

Enclosed is a copy of the Coordinating Draft of the PMRF Enhanced Capability Siting Report for your internal review and distribution. Copies to the those individuals listed on the attached page will also be sent on this date. Comments on this draft are requested by Monday the 10th.

If you have any questions or comments, please call me at (205) 430-5560.

Sincerely,
EDAW

Edd V. Joy
Task Manager

Copies furnished:

See Attachment

San Francisco
Alexandria
Atlanta
Denver
Fort Collins
Huntsville
Irvine
Orlando
Sacramento
Seattle
London
Glasgow
Colmar
Sophia Antipolis
Sydney
Brisbane
Gold Coast
Melbourne
Hong Kong

ATTACHMENT

Crate Spears
LTC Kevin Call
Richard Gonzalez
Julia Hudson
Tom Kane
LTC Larry McCallister
Col. Ned Libby
Liem Nguyen
Jud Carpenter
Duane Nelson
Ivan Romero
Eugene Nitta
Al Lopez
Alex Lee
George Wheeler
Quent Gillard
Tirzo Gonzalez
Walter Odening
Ed Vaughn
Lewis Michaelson
Walter Bouley
Penny Hudson
Kim DePaul
Tom Peeling
LCDR Tom Van Leurien
Rebecca Kimball Hommon
Jim Irwin
Wayne Hammer
Bob McCleave
Joel Miller
Scott Perry
Dean Ridgely

Averiet Soto
Aubry Kunishige
Capt. Daniels
Leland Tottori
Bob Inouye
Eric Dunn
Vida Mossman
Dave Nekomoto
Mel Kaku
Fred Minato
Herb Nekamura
Ron Siv
Ellen Vogler
Steve Scott
Stephen Sheppard
Irene Hofer
Rick Daley
Keith Robinson
Bruce Robinson
Buddy Beck
Susan Lacy
Rick Moon
Mark Webber

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1134
23 OCT 1998

Mr. Michael Jones
Department of Physics and Astronomy
University of Hawaii
2505 Correa Road
Honolulu, HI 96822

Dear Mr. Jones:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

1. The distance from PMRF to USAKA is too great for the use of the target missiles and interceptors described in the referenced environmental assessment. This EIS is not intended to compare PMRF with other ranges that could be used for TBMD testing. Rather, as stated at page 1-3 of the Draft EIS, it responds to Congressional direction that PMRF be designated the "primary test range for the completion of Navy lower tier and upper tier missile flight tests." The Navy is evaluating the environmental impacts of enhancing the capabilities of PMRF to accommodate Navy TBMD and other TMD testing. Therefore, the only alternatives considered are the no-action alternative and the proposed action, with its sub-alternatives. However, we note that other ranges have been or are currently being evaluated under NEPA for their potential to accommodate various TMD testing activities. Figure 1.5-1, on page 1-7 of the Draft EIS outlines the relationships between the various NEPA analyses for missile defense programs.
2. The National Environmental Policy Act (NEPA) allows great flexibility in analyses to support various decisions. The purpose of this EIS is to decide whether and how to enhance PMRF to support testing and training like TBMD and other Department of Defense Theater Missile Defense programs.
3. NEPA allows for evaluation of reasonable and foreseeable alternatives, even if they are currently not compliant with existing treaties. We will not implement any actions that are not in accordance with current U.S. policy on treaty compliance.
4. Palmyra is not being considered as a possible launch site in this EIS. Wake Island is not being considered as a possible launch site in this EIS.
5. The siting document was never finalized because the Theater-Wide program is not sufficiently developed at this point to be evaluated in the EIS. The information contained in the coordinating draft siting document was used to determine possible alternatives for this EIS and identify other alternatives which were not carried forward for further analysis.

9-430

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0318

Vida Mossman
Pacific Missile Range Facility
P. O. Box 128
Kekaha, Kauai, Hawaii 96752-0128

May 11, 1998

Dear Ms. Mossman,

We oppose all construction and operation of TMD testing facilities on National Wildlife Refuge lands. These activities are completely inappropriate uses of federal lands set aside for management and protection of endangered and threatened species.

In your Draft Environmental Impact Statement (April 3, 1998) you do not address the potential harm to birds, threatened sea turtles and endangered Monk Seals that support activities for launching and testing sites will create. Specifically, flights for support personnel to and from the sites, which will potentially cause bird strikes and disturbance; toxic spills from ships or planes; effects of noise on nesting birds, turtles and pupping seals are not addressed in your consideration of Tern Island as a site in the Preferred Alternative. Your statement that only 4 launches per year will have no significant impact on wildlife does not take into account the support missions necessary for those 4 launches.

Sincerely,

CHRISTINE SOUSA
3 PLEASANT ST.
CHELMSFORD, MA
01824-1603

UNIVERSITY STUDENT - MEMBER NORTHSHIRE BIRD CLUB

Support Teaming With Wildlife!

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1135
23 OCT 1998

Ms. Christine Sousa
3 Pleasant Street
Chelmsford, MA 01829-1609

Dear Ms Sousa:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement (EIS).

Review of existing data and analyses, coupled with the comments from government agencies and from the public regarding the sensitivity of Tern Island and Johnston Atoll, has led the Navy to eliminate these sites from consideration as proposed action sites in the Final EIS.

The Final EIS retains the discussion and analysis produced in order to preserve work already performed; however, the Final EIS clearly states the decision that Tern Island and Johnston Atoll are no longer reasonable alternatives.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0319

9-431

May 26, 1998

P-W-0320

Captain J.A. Bowlin
Commanding Officer
P.M.R.F.
P.O. Box 128
Kekaha, Hawaii 96752

Aloha kaua,

As this is the last day to submit testimony for the EIS, I am sending copies of the petition being circulated throughout the Hawaiian islands. I have also included the cover letter that goes with the petition. Please include this in the EIS as my testimony. Included are 600 plus signatures. We will continue to circulate the petition and hopefully submit thousands of names in the next two years.

You are now on the mailing list for "ka Moana Nui" and you will be receiving the first copy in the coming month. I want to thank you and your staff for our VIP tour of the base on May 20, 1998. We wish to again extend our invitation to work with us for the conversion of P.M.R.F. to peaseful endeavors. Touring the base, seeing the beauty and feeling the mana only increase our commitment. We also realize more clearly that we must include regular contact with the State Department.

In conclusion, we wish to begin dialogue with you and the U.S. Navy to use part of the base in the year 2000 for a global concert, televised by satellite, with the message of aloha and peace on earth with the music from throughout the world.

There is great disorder under heaven, but the future is bright.

Me ke aloha pumehana,

Sondra L. Field
P.O. Box 372
Anahola, HI 96703
(808) 822-0647

9-432

OPEN LETTER

Aloha everyone!

We are a group of concerned Kaua'i residents who have been through the Stars Missile Program resistance, have analyzed our past experience and wish to propose a new approach. In addition, we are very concerned about the proposed expansion of the missile launch facilities on Ni'ihau and the northern islands.

Please join us in gathering signatures on the attached petition. Also join us in putting out a newsletter to educate ourselves (and others) on de-militarization and a nuclear free Pacific.

The Polynesian people call the Pacific Ocean *"Ka Moana Nui"*... and so we wish to give this name to our future newsletter. We invite you to join in the creation of this educational newsletter – whether by writing articles, gathering information, raising funds, helping to publish and distribute ... we need help in all these areas.

When we become well-informed, our commitment to the conversion of PMRF (Pacific Missile Range Facility) to peaceful use becomes stronger. ("Conversion" = transformation from one system to another.) We propose that if PMRF becomes a Center for peaceful training and research to meet the needs of the Pacific, that it will provide more and better jobs for our people. (We are very concerned about the "economic card" always played by the military to our Westside people.) We can also help the military to learn about the past negative effects of their endeavors, to help them to make amends and to think more in the line of building peace – rather than preparation for war.

More and more people realize we must make a major shift in our thoughts and actions. People all over the world look to Kaua'i as a Center for spiritual wisdom. Thus it makes perfect sense to begin the process of de-militarization here on our beautiful, peaceful and spiritual island.

Come join our ohana, write and get on the mailing list, make a donation.

'Ili Noho Kai
PO Box 372
Anahola, HI 96703
Phone (808) 639- 6317

Please make copies of the attached <u>blank</u> petition, get signatures and return them to the above address.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/ 1136
23 OCT 1998

Ms. Sondra Field
P.O. Box 372
Anahola, HI 96703

Dear Ms. Field:

Thank you for your comments on the PMRF Enhanced Capability Draft Environmental Impact Statement. I'm glad you enjoyed the tour and hope that you gained a deeper understanding of our activities and stewardship of the land.

Our national leaders must make many difficult decisions concerning how and where to conduct activities that will provide this country a strong defense. Congress has recognized the need to test defensive missile systems that will protect our armed forces and allies overseas, as well as PMRF's ideal setting and existing technology base to perform some of this testing.

The Navy does not claim that the proposed enhancements will have a substantial impact on employment or the local economy, but we recognize that business and civic leaders consider the proposal to enhance PMRF's capabilities a positive development for the economic stability of Kauai and the larger Hawaiian community. We look forward to continuing to be a good neighbor to the people of Kauai.

Let me assure you that those of us who have the privilege of working at PMRF want to do all we can to gain your trust and support.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

Response to P-W-0320

10.0 References

10.0 REFERENCES

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Appendix A
Weapon Systems

Table A-1: Typical Missile Exercise Weapons Used at PMRF

TYPE	CHARACTERISTICS				
	Weight	Length	Diameter	Range	Propulsion
Surface-to-Air Missiles					
Short Range					
Stinger (FIM-92A	10.0 kg (22 lb)	1.5 m (5 ft)	70 mm (2.8 in)	4.8 km (3.4 nmi)	Solid fuel
Sea Sparrow (RIM-7)	204 kg (450 lb)	3.7 m (12 ft)	203-2 mm (8 in)	14.8 km (10.6 nmi)	Solid fuel
Rolling Airframe (RIM-116)	73.5 kg (162 lb)	2.8 m (9 ft 3 in)	127 mm (5 in)	7 km (5.0 nmi)	Solid fuel
Medium Range					
Standard SM-1 MR (RIM-66B)	499 kg (1,100 lb)	4.5 m (14 ft 8 in)	342.9 mm (13.5 in)	46.3 km (33 nmi)	Solid fuel
Standard SM-2 (RIM-66C)	612 kg (1,350 lb)	4.4 m (14 ft 7 in)	342.9 mm (13.5 in)	74.1 km (53 nmi)	Solid fuel
Long Range					
Standard SM-2 ER (RIM-67A/B and 67-C/D)	1,325 kg (2,920 lb)	8.2 m (27 ft)	342.9 mm (13.5 in)	166.7 km (90 nmi)	Solid fuel
Standard SM-2 AER (RIM-67B)	1,452 kg (3,200 lb)	6.7 m (22 ft)	342.9 mm (13.5 in)	150 km (107.1 nmi)	Solid fuel
Air-to-Air Missiles					
Short Range					
Sidewinder (AIM-9)	84.4 kg (186 lb)	2.9 m (9 ft 6 in)	127 mm (5 in)	18.5 km (10 nmi)	Solid fuel
Medium Range					
Sparrow (AIM-7)	231 kg (510 lb)	3.6 m (11 ft 10 in)	203.2 mm (8 in)	55.6 km (30 nmi)	Solid fuel
Long Range					
Phoenix (AIM-54)	447 kg (985 lb)	4 m (13 ft)	381 mm (15 in)	203.9 km (110 nmi)	Solid fuel
Air-to-Surface Missiles					
Short Range					
Skipper II (AGM-123)	582 kg (1,283 lb)	4.3 m (14 ft)	355.6 mm (14 in)	9.6 km (5.2 nmi)	Solid fuel

ft	feet	lb	pounds
in	inches	m	meters
kg	kilograms	mm	millimeters
km	kilometers	nmi	nautical miles

Table A-1: Typical Missile Exercise Weapons Used at PMRF (Continued)

TYPE	CHARACTERISTICS				
	Weight	Length	Diameter	Range	Propulsion
Air-to-Surface Missiles (Continued)					
Medium Range					
HARM (AGM-88)	366.1 kg (807 lb)	4.2 m (13 ft 9 in)	254 mm (10 in)	18.5 km (10 nmi)	Solid fuel
Shrike (AGM-45)	177 kg (390 lb)	3 m (10 ft)	203.2 mm (8 in)	18.5 km (10 nmi)	Solid fuel
Sidearm (AGM-122)	90.7 kg (200 lb)	3 m (10 ft)	127 mm (5 in)	17.8 km (9.6 nmi)	Solid fuel
Long Range					
Harpoon (AGM-84/ RGM-84/UGM-84)*	797 kg (1,757 lb)	5.2 m (17 ft 2-in)	342.9 mm (13.5 in)	278 km (150 nmi)	Solid fuel
Surface-to-Surface Missiles (Cruise)					
Harpoon (AGM-84/ RGM-84/UGM-84)*	797 kg (1,757 lb)	5.2 m (17 ft 2-in)	342.9 mm (13.5 in)	278 km (150 nmi)	Solid fuel

*Characteristics vary according to variant. Those for RGM-84F are shown.

ft feet
in inches
kg kilograms
km kilometers
lb pounds
m meters
mm millimeters
nmi nautical miles

Source: Laur and Llanso, 1995, p.237 through 264.

Table A-2: Typical Aerial Target Drones and Missiles Used at PMRF

TYPE	CHARACTERISTICS			
	Length	Speed (Maximum)	Operational Altitude (Maximum)	Time on Station (Maximum)
Subsonic				
BQM-34S	7 m (23 ft)	Mach 0.9	15,240 m (50,000 ft)	60 minutes
BQM-74C	4 m (13 ft)	430 knots	10,668 m (35,000 ft)	75 minutes
Supersonic				
MQM-8G (ER)	7.6 m (25 ft)	Mach 2.7	1,524 m (5,000 ft)	N/A
AQM-37C	4.1 m (13.6 ft)	Mach 4.0	30,480 m (100,000 ft)	N/A

ft feet
m meters
N/A Not Applicable

Source: Pacific Missile Range Facility, 1991, p.112-114.

Table A-3: Typical Existing Target Systems Used at PMRF

Type	Category	Name	Propellant Type
Ballistic Missile			
	Small	AQM-37C	Liquid
		Black Brant V	Solid
		Hawk	Solid
		Recruit	Solid
		Malemute	Solid
	Medium	Terrier	Solid
		Talos	Solid
		Castor	Solid
		STRYPI	Solid
	Large	Strategic Target System	Solid
	Supersonic	AQM-37C	Liquid
		Vandal ~~(Simulating Cruise Missile)~~	Liquid/Solid
Balloon			
		Balloon	N/A
Towed			
	Aerial	TDU-34A	N/A
Subsurface			
		MK 30 Mod 1	Liquid
		EMATT	Liquid
		SPAT-1 (Self Prop Acoustic Target)	Liquid
		MK-17 (Stationary Target for MK-46)	N/A
Surface			
		QST 35	Liquid
		HULK (TBD)	N/A
		ISTT (Improved Surface Towed Target)	N/A
Cruise Missiles			
	Subsonic	BQM-34S	Liquid
		BQM-74/CHUKAR	Liquid
		AQM-34	Liquid
	Supersonic	Vandal	Liquid/Solid

Table A-4: Typical Existing Weapon Systems Used at PMRF

Type	Category	Name	Propellant Type (Liquid/Solid)
Missiles			
	Ship	ASROC	Liquid/Solid
	Ship	Harpoon (RTM-84)	Liquid
	Ship	MK 46 VLA	Liquid/Solid
	Ship	SM-2 BLK II	Solid
	Ship	SM-2 BLK III	Solid
	Ship	SM-2 BLK IV	Solid
	Ship	Sparrow (A1M7)	Solid
	Surf/Ship/Sub	Harpoon (R/UGM-84)	Liquid/Solid
	Air	AGM-45 (SHRIKE)	Solid
	Air	Harpoon (AGM-84)	Liquid
	Air	Phoenix	Solid
	Air	Sidewinder	Solid
	Air	Sparrow	Solid
	Air/Surf/Sub	Tomahawk	Liquid/Solid
	Land	Hawk	Solid
	Land/Ship	Stinger	Solid
Guns			
	Ship	Naval Guns	N/A
	Ship	Phalanx/Vulcan	N/A
	Air	Aircraft Mounted Guns	N/A
Weather Rocket			
	Land	PWN-11D	Solid
	Land	PWN-12A	Solid
Torpedoes			
	Sub	MK 48 ADCAP	Liquid
	Sub	MK 48	Liquid
	Air/Ship	MK 44 (PLLT)	Battery
	Air/Ship	MK 50	Liquid
	Air/Ship	Type 80 (Japanese)	Liquid
	Air/Surf	MK 46	Liquid

N/A Not Applicable

Table A-4: Typical Existing Weapon Systems Used at PMRF (Continued)

Type	Category	Name	Propellant Type (Liquid/Solid)
Sub Launched Mines			
	Sub	MK-67-2 Sub Launched Mobile Mine (SLMM)	Battery
Air Deployed Mines			
	Air	MK-25	N/A
	Air	MK-36	N/A
	Air	MK-36 DST	N/A
	Air	MK-52	N/A
	Air	MK 76	N/A
Bombs			
	Air	BDU-45	N/A
	Air	MK-82	N/A

N/A Not Applicable

Table A-5: Typical Electronic Warfare Assets Used at PMRF

TYPE	CHARACTERISTICS		
	Frequency Bands	Power Output (Maximum)	Location Used
Air and Seaborne Electronic Warfare Assets			
Airborne Simulator Systems			
APS-504(V)5	8.9925-9.375 GHz	8 kW	PMRF RC-12F Aircraft
MK-67	907.2 kg (2,000 lb)	4.00 m (13 ft 5 in)	533 mm (21 in)
Expendable Radar Transmitter Sets			
AN/DPT-1(V)	7.8-9.6, 14.0-15.2 GHz	80 kW	BQM-334S Targets
AN/DPT-2(V)	9.375 GHz	20 kW	BQM-74C Targets
Airborne Electronic Countermeasures Systems			
Traveling Wave Tube Countermeasures System	425-445 MHz, 902-928 MHz, 2-4 GHz	100-W	PMRF RC-12F Aircraft
ALT-41	425-445 MHz	100-W	PMRF RC-12F Aircraft
ALT-42	902-928 MHz	100-W	PMRF RC-12F Aircraft
DLQ-3	2-4 GHz	100-W	PMRF RC-12F Aircraft
ULQ-21	8-10.5 GHz	100-W	PMRF RC-12F Aircraft

Table A-5: Typical Electronic Warfare Assets Used at PMRF (Continued)

TYPE	CHARACTERISTICS		
	Frequency Bands	Power Output (Maximum)	Location Used
Seaborne Simulator Systems			
AN/DPT-1(V)	7.8-9.6, 14.0-15.2 GHz	80 kW	Range Boats
AN/DPT-2(V)	7.8-9.6, 14.0-15.2 GHz	150 kW	Range Boats
Land-Based Electronic Warfare Assets			
Simulator Systems - Fixed			
AN/DPT-1(V)	7.8-9.6, 14.0-15.2 GHz	70 kW	Makaha Ridge, Kauai
ENSYN	2-4, 7-11 GHz	1 kW	Makaha Ridge, Kauai
I/J-TES	7.8-9.6, 14.0-15.2 GHz	70 kW	Makaha Ridge, Kauai
AN/DPT-1(V)	7.8-9.6, 14.0-15.2 GHz	70 kW	Mauna Kapu, Oahu
Simulator Systems - Mobile			
AN/DPT-1(V)	2.9-3.1, 7.8-9.6, 14.0-15.2 GHz	70 kW	Barking Sands, Kauai
AN/UPT-2A(V)	2.9-3.1, 7.8-9.6, 14.0-15.2 GHz	150 kW	Barking Sands, Kauai
AN/D/DPT-1(V)	7.8-9.6, 14.0-15.2 GHz	70 kW	Perch Site, Niihau
AN/UPT-2A(V)	2-4, 8-18 GHz	150 kW	Perch Site, Niihau
ENSYN	2-4, 8-18 GHz	1 kW	NAS Barbers Point, Oahu
AN/DPT-1(V)	2.9-3.1, 7.8-9.6, 14.0-15.2 GHz	70 kW	NAS Barbers Point, Oahu
Electronic Countermeasures Systems - Fixed			
ALT-41	425-445 MHz	100 W	Makaha Ridge, Kauai
ALT-42	902-928 MHz	100 W	Makaha Ridge, Kauai
ULQ-26	2-4 GHz	100 W	Makaha Ridge, Kauai
ULQ-21	8.0-10.5-GHz	100 W	Makaha Ridge, Kauai
Electronic Countermeasures Systems - Mobile			
DLQ-3	425-445 MHz— 14.0-15.2 GHz	100 W	Range Boats, Remote Sites
ULQ-26	425-445 MHz— 14.0-15.2 GHz	100 W	Range Boats, Remote Sites
ULQ-21	425-445 MHz— 14.0-15.2 GHz	100 W	Range Boats, Remote Sites
ALT-41/42	425-445 MHz— 14.0-15.2 GHz	100 W	Range Boats, Remote Sites

ft feet in inches kW kilowatts m meters mm millimeters
GHz gigahertz kg kilograms lb pounds MHz megahertz W watts
Source: Chun, 1996, Dec, p.1.

Table A-6: Existing PMRF Radars, Locations, and Characteristics

Emitter	Comments	Location	Power Peak (kW)	Scan Rate	Frequency (MHz)		Pulse Width (μS)	PRF (PPS)	Ant. Gain (dBi)	Ant. Elev. (m)	Remarks
					Low	High					
AN/MPS-25	Monopulse Tracking (2 each)	Main Base	1,000	--	5,400	5,900	0.25, 0.5, 1	160, 640	46	18	AZ = 0 to 360 degrees. Elevation = -5 to +185 degrees
AN/SPS-10	Surveillance	Main Base	250	15 rpm	5,450	5,825	0.5, 1.3	640	30	22	
AN/UPX-27	AN/SPS-10 IFF Interrogator	Main Base	1	15 rpm	1,030	1,030	0.8	640	23	22	Uses AN/SPS-10 antenna
AN/FPS-106	Weather Radar	Main Base	500		5,450	5,650	0.5	320	35	20	
AN/WRF-100	DOE Radar Facility	Main Base	250	--	9,375	9,375	1	640	32	10	
AN/MPS-25	Monopulse Tracking (2 each)	Makaha Ridge	1,000	--	5,400	5,900	0.25, 0.5, 1	160, 640	46	500	AZ = 0 to 360 degrees. Elevation = -5 to +185 degrees
AN/FPQ-10	Monopulse Tracking (2 each)	Makaha Ridge	1,000	--	5,400	5,900	0.25, 0.5, 1	160, 640	43	473	AZ = 0 to 360 degrees. Elevation = -5 to +90 degrees
AN/SPS-48E	Track-While-Scan Surveillance	Makaha Ridge	2,400	15 rpm	2,908	3,110	27	Various	39.1	462	
AN/UPX-27	AN/SPS-48E IFF Interrogator	Makaha Ridge	1	15 rpm	1,030	1,030	0.8	Various	19	462	
AN/APS-134	Surface Surveillance	Makaha Ridge	500	15 rpm	9,500	10,000	0.5	500	42	457	Linear frequency chirp each pulse
AN/FPS-16	Monopulse Tracking	Kokee	1,000	--	5,400	5,900	0.25, 0.5, 1	160, 640	43	1,155	AZ = 0 to 360 degrees. Elevation = -5 to +185 degrees
AN/FPQ-10	Monopulse Tracking	Kokee	1,000	--	5,400	5,900	0.25, 0.5, 1	160, 640	43	1,150	AZ = 0 to 360 degrees. Elevation = -5 to +90 degrees
USB	Unified S-Band System	Kokee	20	--	2,090	2,120	CW	CW	44	1,110	
AN/FPS-117	Surveillance	Kokee	24.75	5 rpm	1,215	1,400	51.2, 409.6	241	38.6	1,310	
OX-60/FPS-117	AN/FPS-117 IFF Interrogator	Kokee	2	5 rpm	1,030	1,030	Various	241	21	1,310	
AN/APS-134	Surveillance	Niihau	500	15 rpm	9,500	10,000	0.5	500	42	375	
R73-6	Raytheon Pathfinder (3 each)	Weapons Recovery Boat and Torpedo Weapons Recovery	10	24 rpm	9,410	9,410	0.08, 0.4, 0.8, 1.2	2,000, 1,500, 750, 500	16	8	

Source: Modified from Miller, 1996, 12 Dec, p.1

Table A-7: Representative Proposed Action Target Systems

Type	Category	Name	Propellant Type
Ballistic Missile			
	Small	HERMES	Solid
		Lance	Liquid
		Standard	Solid
		Tomahawk (Rocket)	Liquid/Solid
		Honest John (Booster)	Solid
		Nike (Booster)	Solid
		PATRIOT as a Target (PAAT)	Solid
		Apache	Solid
		Cajun	Solid
		Genie (14" diameter)	Solid
	Medium	Antares (Stack)	Solid
		Aries	Solid
		Spartan	Solid
		Talos	Solid
		SR-19 (Air Drop)	Solid
		STORM	Solid
		MA-31	Liquid
		Foreign Material Assets	Liquid/Solid
	Large	Hera	Solid
	~~Supersonic~~	~~MA-31~~	~~Liquid~~
		Terrier	Solid
Aircraft			
	Subsonic	QF-4	Liquid
		AF-16	Liquid
Cruise Missiles			
	Subsonic	MQM-107	Liquid
		Harpoon	Liquid
		Foreign Material Asset	Liquid
		Tactical Air Launched Decoy (TALD ADM-141A)	Liquid
		ITALD (Improved version ADM-141C)	Liquid
	Supersonic	MA-31	Liquid
		Terrier	Solid
		FMA	Liquid

Table A-8: Target Launch Pad—Rail and Stool Requirements

Item/Facility Type	~~Area Defense~~ Requirements 0 to 1,200 kilometers (0 to 647.9 nautical miles)
Dimensions of Launch Pads/Construction Materials Assumed	12.2 meters x 15.2 meters + 15.2 meters (40 x 50 feet + 50 feet) for environmental shelter = 12.2 meters x 30.5 meters (40 x 100 feet) = 371.6 square meters (4,000 square feet). Concrete pad with outer gravel or coral area.
Cleared Area/No Vegetation Zone Surrounding Launch Pad	15.2 to 30.5 meters (50 to 100 feet)
ESQDs by Category Type [Intraline (IL), Public Transportation Route (PTR), Inhabited Building (IB)]	85.3 meters (280 feet) IL 228.6 meters (750 feet) PTR 381 meters (1,250 feet) IB ESQD
GHA Radius	For most unguided systems, GHA = 609.6 meters (2000 feet) For guided systems, GHA = 1,828.8 to 3,048 meters (6,000 to 10,000 feet)
Electromagnetic Radiation Constraints to Personnel, Fuels, or Ordnance	Consider HERO (ordnance electronic triggering mechanisms potentially set off due to electromagnetic radiation).
Launch Pad Fencing/Security Needs	Should have access control to the hazardous operations/ launching area. The target payload may be classified.
Utilities to Launch Pad/Type Needed	Will bring some portable electrical generator capability (campaign). Will require a power distribution system, fuel storage, and containment area to avoid soil contamination.
Road Access to Launch Pad/Hazardous Transportation Route/ % Grade	Prefer gravel road of less than 6 percent grade. Prefer to stay off public highways.
Environmental Shelter/Pad/Dimensions	Depends on the type of missile system and site environmental constraints (some missiles are temperature, humidity, and salt spray dependent). At KTF, only tarps are used in some cases. Some booster rockets must be maintained between 15.5 to 26.7 degrees Celsius (60 to 80 degrees Fahrenheit). Also stool launch items will require wind protection.
Soil Conditions Desired	Stable soil, cleared gravel or paved area around the launcher.
Minimum Distance to Shoreline If Any	None. Consider waves, salt spray.

Table A-9: Target Support/Preparation and Launch Control Facilities Requirements

Item/Facility Type	~~Area Defense~~Requirements
Missile Assembly—Need missile assembly building on Island or Build-up at Another Location (Specify if Known), Ship by Aircraft or Barge to Island, or Other Logistics Based on Distance, Weight, Airfield, Etc.	No new missile assembly building needed. Build up at PMRF. Transport by aircraft or barge to island. May have an environmental shelter (stool) and/or clamshell (rail) at the launch site. Possible Environmental Control addition to Rocket Motor Staging Area at KTF—may want to add air conditioning.
Vertical Target Missile Service Tower Needed, Dimensions	None required.
Launch Control Van or Building	Mobile Launch Control Van (could be a van brought in by air or barge or a trailer like Kokole Point at PMRF with a berm [if a rail], or a van in a hardened van shelter [if a stool]).
Launch Pad Equipment Building	Equipment building (2.4 x 2.4 meters [8 x 8 feet]) next to pad.
Missile Storage Facility	May need missile storage if the number of launches per year justifies the cost.
Warehousing	Would use existing warehousing if available. If not, keep supplies on a barge or fly in/out. May use military vans or enclosed semi trailers
Road Access Dimensions/Minimum Radii	3.7 meters (12 feet) wide road minimum, 15.2 meters (50 feet) turning radius to launch pad, 2.4 meters (8 feet) minimum to launch control.
Min. Distance to Shoreline If Any	None. Wave action? Salt spray?
Utilities to Facilities/ Type Needed	Electricity.
Security/Fencing/Clear Zone Needed/Dimensions	Not required unless there is a need to provide security protection or to mitigate for bird control (site specific—Tern). Dimensions undefined.
Electromagnetic Radiation Constraints to Personnel, Fuels, or Ordnance	Consider HERO (ordnance electronic triggering mechanisms potentially set off due to electromagnetic radiation).
View of Launch Pad Needed From Control Van/Building	Desired.

Table A-10: Representative Defense Missile Systems

Type	Category	Name	Propellant Type (Liquid/Solid)
Missiles			
	Ship	SM-2 BLK IVA	Solid
	Ship	SM-3	Solid
	Air	AMRAAM	Solid
	Land	MEADS	Solid
	Land	PATRIOT (PAC-2)	Solid
	Land	PAC-3	Solid
	Land	THAAD	Solid

Table A-11: Land-based Interceptor Launch Site (Mobile) Requirements

Item/Facility Type	Requirements 0 to 1,200 kilometers (0 to 647.9 nautical miles)
Desired Operational Launch Orientation/Flight Path	Need target range of between 350 and 1,000 kilometers (217.5 and 621.4 miles)
Dimensions of Launch Pads/Construction Materials Assumed	Need a hardstand area (prefer gravel or coral) and relatively level ground. Need an area of approximately 42.1 x 20.1 meters = 846 square meters (138 x 66 feet = 9,108 square feet). The launchers are to be sited within the 120 degree angle of the radar signal (60 degrees either side of the boresight). The launchers are to be located between 130.1 meters (427 feet) and 10 kilometers (6.2 miles) from the radar set. Several launchers may be sited within this area.
Cleared Area/No Vegetation Zone Surrounding Launch Pad	None. Consider security/visibility.
ESQD by Category Type (IL, PTR, and IB)	381 meters (1,250 feet) for IB ESQD, 85.3 meters (280 feet) IL, 228.6 meters (750 feet) PTR Note—Should plan for 381 meters (1,250 feet)—Dual mode Area Interceptors.
GHA Radius	1,829-meter (6,000-foot) radius
Electromagnetic Radiation Constraints to Personnel, Fuels, or Ordnance	120.1 meters (394 feet) in front of the radar - 60 degrees both sides of boresight (refer to PAC-3 environmental document).
Launch Pad Fencing/ Security Needs/Dimensions	Security guards required.

Table A-11: Land-based Interceptor Launch Site (Mobile) Requirements (Continued)

Item/Facility Type	~~Area Defense~~Requirements 0 to 1,200 kilometers (0 to 647.9 nautical miles)
Utilities to Launch Pad/Type Needed	Utilities are required for aerospace ground equipment and test instrumentation.
Road Access to Launch Pad/Percent Grade	Require road access through rough terrain, gravel preferred. Turning radius of 15.2 meters (50 feet). System designed to be mobile.
Soil Conditions Desired	Stable soil. Gravel surface desirable. Don't want equipment to sink.
Environmental Shelter/Pad/Dimensions	Re-enforced structures for Command and Control trailers.
Minimum Distance to Shoreline If Any	None. Consider wave action, salt spray.

Table A-12: Telemetry, Optics, and Radar Instrumentation Requirements

Item/Facility Type	~~Area Defense~~Requirements
Instrumentation Devices/Facilities Required—Targets	Targets—Short- and medium-range multi-participant target and interceptor tracking and telemetry reception, additional range safety monitoring, and additional data products needed. Makaha Ridge: Radars (COSIP), optics, lasers, electronic warfare, telemetry (receivers, recorders, antennas) and internal power plant upgrades Kokee Parcel A: Radar (x band), Communications (CEC [tower], voice, data [telephone poles]) Parcel C: Telemetry antenna (phase array or dish), building (40x60) Parcel D: Radar (COSIP), telemetry antenna
Instrumentation Device(s)/Facilities Required - Interceptors	Area Interceptors—Assumes that Range assets are fixed or trailer mounted (portable).
Number of Interceptor Personnel Working/How Long	Radar site requires 15 people working 2 to 3 weeks.
Mobile Instrumentation Alternative	May consider mobile instrumentation at some sites if no or inadequate on-ground facilities exist. Example is the Wallops Flight Facility (NASA) system. Requires C-141 accessibility for airborne assets. On-ground assets require concrete pad for mobile radar pedestal, line of sight, adequate safety clear zone, and generator use. May also consider military P-3 aircraft use.

Table A-13: Communications, Command, and Control Requirements

Item/Facility Type	~~Area Defense~~Requirements
Number of Interceptor Personnel Working/How Long	Battle management, communications, command, and control, and intelligence—15 people for 2 to 3 weeks.
Command and Control Enhancements—Targets/ Interceptors	Command and control needed; enhanced range safety monitoring needed; and FTS enhancement needed. Possible use of Building 105—Control Center at PMRF. Expand fiber optics. Expand office space. Add transmitters and receivers, other communication equipment. Could be mobile in aircraft.

Table A-14: Support Infrastructure Requirements

Item/Facility Type	~~Area Defense~~Requirements
Electric Power/Portable Generator/Backup	For Interceptors—Need power under Test mode, no power under Tactical mode. Self contained. For Targets—Power needed, either local power or a generator.
Sanitation/Septic/Waste Treatment	For Interceptors—Total sanitation need is for 47 personnel for 2 to 3 weeks/launch. For Targets—Total sanitation need is for 6 to 10 personnel for 1 to 2 weeks/launch.
Solar Power	None for Interceptors. Targets—No need defined.
Natural Gas/Propane	None for Interceptors. Targets—No need defined.
Potable Water/Fire Flow/Storage	Interceptors and Targets—Drinking water for personnel, minor fire control.
Solid Waste Disposal/Transfer	Interceptors and Targets—Temporary on site storage and/or transport away.
Hazardous Materials Temporary Storage Transfer–Liquid and Storage	Interceptors and Targets—Temporary storage.
Storage/Warehousing/ Logistics Support and Services—Campaign Only	Interceptors and Targets—Use existing space, if available.
On-Island Road Access/Vehicle Storage, Maintenance, and Parking—Campaign Only	Interceptors and Targets—Semi-trailer road access to assets required. Campaign–No storage.
Off-Island Transportation (Air, Barge, Other)	Interceptors and Targets—Air transport (C-130, C-141, and C-5/C-17) and landing craft or ship. Aircraft use desirable.
Fire Station/Pumper/ Training/Equipment/ Emergency Medical Team	As defined by PMRF Safety.

Table A-14: Support Infrastructure Requirements (Continued)

Item/Facility Type	~~Area Defense~~Requirements
Security Forces/Training	Interceptors and Targets—Security guards will be required during launches. No permanent support.
Recreation Facilities/Services	Interceptor and Targets—No need defined.
Fuel Storage	Interceptor and Targets—Electric generator and vehicle fuel storage.
Transient Quarters/Berthing Quarters-Barges	Interceptor and Targets—Need defined. Self-contained onshore camp concept or ship/barge quarters. See personnel numbers. Depends on frequency/location.
Permanent Housing (Base UEPH/Family Housing or Private Rental Housing)	Interceptor and Targets–No need defined.
Administrative Services/Office Space/ Campaign Trailer	Interceptor and Targets—Possible use of Building 105 at PMRF or SNL/KTF complex. Possible use of campaign trailer(s).
Medical Facility and Services	Interceptors and Targets—No special facilities required. Typical services assumed.
Mess Hall/Laundry Facility and Services	Interceptors and Targets—Self-contained onshore camp concept or ship/barge facilities.
Communications Facility and Services	Interceptors and Targets—No need defined.
Liquid Propellant Storage (Hypergolic)	Interceptor—May require temporary storage. Targets—Need defined for targets.
Small Explosives/Igniter/Squib Storage/Setbacks	Interceptor—No need defined. Targets—May require squib storage.
Heavy Equipment/Crane	Interceptor—No need defined. Targets—May require crane.
Lightering Boat and Marine Crew Services/Stevedoring	Interceptor and Targets—Need defined.
Berthing/Moorage/Dock and Ramp	Interceptor and Targets–Need defined if no adequate airfield.
Helipad	Interceptor and Targets–Need helipad support capability for emergency medical evacuation and supplies delivery, or airfield capability.
Aircraft Runway (C130, C141, C5, C17 or Other)/Airfield operations and maintenance/Hotpad/Aircraft Parking and Maintenance	C-130, C-141, and C-5/C-17.

Table A–15: Representative TMD Propellant and Exhaust Components

Missile	Propellant Class	Major Propellant Components	Major Exhaust Components
Weapon Systems			
MEADS	Solid	Aluminum, HTPB	Aluminum Oxide, Carbon Dioxide, Carbon Monoxide, Hydrogen, Hydrogen Chloride, Nitrogen, Water
PAC-2	Solid	Aluminum, Ammonium Perchlorate, Iron Oxide, Polymer Binder	Aluminum Oxide, Carbon Dioxide, Carbon Monoxide, Hydrogen, Hydrogen Chloride, Nitrogen, Water
PAC-3	Solid	Aluminum, HTPB	Aluminum Oxide, Carbon Dioxide, Carbon Monoxide, Hydrogen, Hydrogen Chloride, Nitrogen, Water
Standard Missile	Solid	Aluminum, Ammonium Perchlorate, HMX	Aluminum Chloride, Aluminum Oxide, Ammonia, Carbon Dioxide, Carbon Monoxide, Ferric Chloride, Ferric Oxide, Hydrogen, Hydrogen Chloride, Nitric Oxide, Nitrogen, Water
THAAD	Solid	Aluminum, Ammonium Perchlorate, Binder	Aluminum Oxide, Carbon Dioxide, Carbon Monoxide, Hydrogen, Hydrogen Chloride, Nitrogen, Water
Target System			
HERA	Solid	Aluminum, Ammonium Perchlorate, CTPB, HMX, Nitrocellulose-Nitroglycerine	Aluminum Oxide, Carbon Dioxide, Carbon Monoxide, Hydrogen, Hydrogen Chloride, Nitrogen, Water
LANCE	Liquid	IRFNA (Hydrogen Fluoride, Nitric Acid, Nitrogen Dioxide), UDMH, Water	Carbon Dioxide, Carbon Monoxide, Nitrogen, Oxygen, Water
STRYPI	Solid	Aluminum, Ammonium Perchlorate, CTPB, Nitrocellulose-Nitroglycerine, Polysulfide Elastomer	Aluminum Oxide, Carbon Dioxide, Carbon Monoxide, Chlorine, Hydrogen, Hydrogen Chloride, Hydrogen Sulfide, Nitrogen, Sulfur Dioxide, Water

CTPB = Carboxyl-terminated Polybutadiene
HMX = Cyclotetramethylenetetranitramine
IRFNA = Inhibited Red Fuming Nitric Acid
HTPB = Hydroxyl-terminated Polybutadiene
UDMH = Unsymmetrical Dimethyl Hydrazine

Table A-16: Fleet Training Exercises

Exercise	Purpose	Participants	Frequency and Duration	Weapons/ ~~Sensors~~	Targets
Over the Horizon Targeting (OTH-T) Exercise	Practice and evaluation in tracking targets that are not directly observable	One or more ships, radar platforms (PMRF, ship, and/or Airborne Warning and Control System aircraft), relays (aircraft, ship, and/or satellite)	6-10 events/year; 8 hours/event	~~PMRF or ship borne radars~~	Weapons Recovery Boat (WRB) or Torpedo Weapon Retriever (TWR)
Composite Training Underway Exercise (COMPTUEX)	Provides fleet units training in multi-ship tactical coordination against underwater, surface, and airborne threats. Allows the best possible simulation of a combat environment.	Three or more surface units	0-3 events/year; (aver. = 1.2); 3 days/ event	Missiles, guns, torpedoes	Torpedo underwater targets, Seaborne Powered Target (SEPTAR) surface targets, aerial target drones, and submarine targets
Multi-Threat Exercise (MTX)	Provides fleet surface units experience in multi-threat environments. Fulfills annual firing requirements for shipboard qualifications.	One to two surface ships	0-1 event/year; 5 hours/ event	Missiles, torpedoes, guns, electronic warfare	Surface target boat, and aerial target drones
Middle East Force Exercise (MEFEX)	Increases the combat readiness of Navy task forces en-route to the Middle East	One to five deploying ships, and TWR, WRB, SEPTAR, Improved Surface Towed Target (ISTT), and aerial target drones	2-7 events/year (aver. = 4.2); 5 hours/ event		TWR, WRB, SEPTAR, ISTT, and aerial target drones
Tailored Ships Training Availability (TSTA)	Provides specific readiness training needs for a particular ship	Varies according to the specific component exercises conducted	0-19 events/year (aver. = 9.8); 8 hours/ event	Guns, torpedoes, missiles, and weapons used in GUNNEX, ASWEX, AIRASWEX, SAMEX, TRACKEX, etc.	Varies according to specific component exercises
Prospective Commanding Officer Free Play Exercise (HOLLYWOOD)	Certifies the proficiency of future commanding officers in weapon deployment and submarine tactics development	Two submarines, two to five surface units (during the second week), torpedo underwater targets, WRBs and TWR, and helicopters	2 events/year; 2-week period in February and August. 1 week of submarine-only operations and a second week of submarine versus surface ship combatants	Torpedoes	Submarines, torpedo underwater targets, WRBs, TWRs, and surface ship

Table A-16: Fleet Training Exercises (Continued)

Exercise	Purpose	Participants	Frequency and Duration	Weapons	Targets
Rim of the Pacific Exercise (RIMPAC)	Provides the navies of Pacific Rim countries the opportunity to work together as cooperating forces	Up to 40 undersea and surface units (including 2 carrier battle groups), many aircraft, submarines, underwater targets, 30 to 40 aerial target drones, SEPTARs, WRBs and/or TWR, full-scale hulk targets, missiles (surface-to-air, surface-to-surface, anti-radiation, high speed anti-radiation, air-to-air) torpedoes, and bombs. Countries involved may include Canada, Japan, South Korea, Australia, Peru, Chile, Singapore, France, United Kingdom, and Russia	1 event/2 years; 8 weeks/event	Missiles, torpedoes, bombs, including weapons used in SAMEX, GUNNEX, AIRASWEX, AAWEX, MINEX, SINKEX, and amphibious assaults	Underwater targets, aerial target drones, SEPTARs, WRBs, TWRs, environmentally-approved full-scale hulk targets
AEGIS Post Delivery Test and Trials (PDT&T)	Trains the crew of a new AEGIS ship and evaluates both crew and hardware performance	AEGIS ship, torpedo underwater targets, range helicopters, civilian helicopters for passenger runs, helicopters, anti-submarine warfare aircraft, WRB and/or TWR range boats, aircraft, aerial target drones, SEPTAR, tanker aircraft, torpedoes, and anti-submarine rockets (for VLA)	0-4 events/year; 2.5-3 weeks/event	Includes weapons used in AAWEX, CSSQT, WSAT, OTH-T, ASWEX, EWEX, and AIRASWEX	Torpedo underwater targets, WRB and/or TWR range boats, aerial target drones, SEPTAR
Combat System Ship Qualification Trial (CSSQT)	Tests a ship's crew and system hardware	Varies depending on the nature of exercise conducted	0-2 events/year; 2.5-3 weeks/event	Torpedoes, missiles, and weapons used in ASWEX, AIRASWEX, SAMEX, MEFEX, EWEX	Underwater, surface, and air
Post Regular Overhaul Training and Testing (PRT&T)	Demonstrates combat readiness, verifies all systems and integration programs operate as designed, and provides crew training to restore proficiency following crew turnover during routine overhauls and upgrades	One AEGIS ship	0-1 events/year; 1 week/event	Torpedoes, missiles	Underwater, surface and air

Table A-16: Fleet Training Exercises (Continued)

Exercise	Purpose	Participants	Frequency and Duration	Weapons	Targets
AEGIS Anti-Air Warfare Fleet Training Requirements Testing	Provides training requirements for anti-ship missile defense against a single subsonic sea-skimming target, for high altitude, long-range missile firing against a single, supersonic, high-altitude target, and for a low-angle missile firing against a single, supersonic sea-skimming target.	One AEGIS ship	1 event/20 months; three exercises during each AEGIS ship's period between deployment	Torpedoes, missiles	Underwater, surface, and air

Table A-17: Missile Training Exercises

Exercise	Purpose	Participants	Frequency and Duration	Weapons	Targets
Air-to-Air Missile Exercise (AAMEX)	Provides aircrews proficiency in using aircraft fire control systems and develops new firing tactics of air-to-air missiles	Two aircraft and a jet target. Sometimes up to six aircraft and two to four targets.	0-7 events/year (aver. = 3.2); 1.5 hours/event	Air-to-air missile	Jet Target Drone launched from PMRF or Mobile Aerial Target Support System (MATSS), or both
Air-to-Surface Missile Exercise (ASMEX)	Provides a basic training environment for fleet and Marine air groups in missile firing and bomb drops	One to four aircraft, targets such as a SEPTAR boat, the Improved Surface Tow Target (ISTT), full-scale hulk, air-to-surface missiles, anti-radiation missiles, high-speed anti-radiation missiles, bombs, and photographic helicopters	0-6 events/year (aver. = 2.2); 4 hours/event	Air-to-surface missile	Naval Gunfire Scoring System (NGSS); SEPTAR and/or Towed target; or environmentally-approved full-scale hulk
Surface-to-Air Missile Exercise (SAMEX)	Provides basic training for fleet units in firing surface-to-air missiles	Surface ship, airborne targets, and surface-to-air missiles	1-2 events/year (aver. = 1.8); 2 hours/event	Surface-to-air missile	Aircraft-launched target drones that have preprogrammed flight paths; Remote-controlled ground- or air-launched target drones
Surface-to-Surface Missile Exercise (SSMEX)	Provides basic training for fleet units to exercise singly or as multiple units in firing surface-to-surface missiles	One or more surface units, SEPTAR boats, WRB, and a helicopter for environmental and photo evaluation	0-4 events/year (aver. = 1.4) 2 hours/event	Surface-to-surface missile	SEPTAR

Table A-17: Missile Training Exercises (Continued)

Exercise	Purpose	Participants	Frequency and Duration	Weapons	Targets
Army Surface-to-Air Missile Exercise (Army SAMEX)	Provides Army personnel the means to qualify in the firing of heat-seeking missiles	Army personnel and targets	4 events/year; 4 hours daily for 2 weeks/ event	Heat-seeking missiles	Aerial target drones
Harpoon Anti-Surface Missile Exercise (HARPOONEX)	Provides experience in pursuing surface targets and firing Harpoon anti-ship missiles	Firing unit (ship, submarine, and/or aircraft), full-scale hulk or SEPTARs, a photographic helicopter, and surveillance and other airborne optical sensors	0-2 events/year (aver. = 1) 8 hours/event	Harpoon anti-ship missiles	Environmentally-approved full-scale hulks or SEPTARs
Penguin Anti-Surface Missile Exercise (PENGUINEX)	Provides experience in pursuing a surface target and firing medium-range Penguin anti-ship missiles	Firing unit (ship and/or aircraft), full-scale hulk or SEPTAR, photographic helicopter, and airborne radar aircraft (possible)	0-2 events/year (last done in 1996); 4 hours/event	Penguin anti-ship missiles	Environmentally-approved full-scale hulk or SEPTAR
Anti-Air Warfare Exercise (AAWEX)	Provides realistic training and evaluation environment for surface ships and their crews	One or more surface ships, one or more targets, one helicopter for target recovery, and one range boat for target recovery	0-1 event/year; 2 hours/event	Surface-to-air missiles	Target drones

Table A-18: Gunnery Exercises

Exercise	Purpose	Participants	Frequency and Duration	Weapons	Targets
Gunnery Exercises (GUNNEX)	Provides surface vessel crews gunnery practice at both stationary and moving targets	One or more surface vessels, Naval Gunfire Scoring System, observation helicopters, SEPTARs, ISTTs, orange buoys, towed aerial targets, full-scale hulks, and jet aerial targets	0-6 events/year (aver. = 3.2); 8 hours/event	Ship-deployed and air-deployed weapon systems, ranging from 20 mm to 5-in. caliber guns	SEPTARs, Improved Surface Tow Targets, orange buoys, towed aerial targets, environmentally-approved full-scale hulk, jet aerial target drones, Island of Kaula, Naval Gunfire Scoring System
Army Surface-to-Air Gunnery Exercise (Army SAGEX)	Enables Army personnel to qualify in firing Gatling gun cannons	Army personnel, aircraft, and ballistic aerial targets	Not done in last 5 years; 4 hours daily for 8 weeks. First 4 weeks dedicated to qualifying personnel in the use of the cannon against aerial towed targets.	Ship-deployed and air-deployed weapon systems, ranging from 20 mm to 5-in. caliber guns	Aerial towed targets

Table A-19: Mine Warfare Exercises

Exercise	Purpose	Participants	Frequency and Duration	Weapons	Target areas
Aerial Mining Exercise (MINEX)	Provides basis for air crew qualification in aerial mining	One or more aircraft	20-30 events/ year; 1 hour/event	Computer-simulated and exercise mines	Mining lines off the southwest coast of Kauai and the northeast coast of Niihau
Mining Readiness Certification Inspection	Provides the basis for anti-submarine warfare aircraft squadron certification and simulates wartime air-deployed mining of an enemy harbor	Four or five aircraft and one helicopter	0-7 events/ year (aver. = 2.4, not done currently); 1 hour/event	Dummy mines equipped with dye packs	Impact points determined by Operations Controller
Submarine-Launched Mobile Mines Exercise (SLMMEX)	Provides practice and evaluation with techniques and hardware for effectively firing submarine-launched mobile mines	One or more submarines, WRBs, one or more diver teams for mine recovery, and one or more helicopters	2-5 events/ year; 2 days/event	Inert submarine-laid mines ranging in size from 798 kg (1,759 lb) to 1,053 kg (2,321 lb) (Note: All mines are recovered)	Shallow water north of PMRF

Table A-20: Electronic Warfare Exercises

Exercise	Purpose	Participants	Frequency and Duration	Weapons/Electronic Warfare Assets	Targets
Electronic Warfare Exercise (EWEX)	Tests the capabilities of a ship or other unit to function in an electronic warfare environment	One to four ships, one or two submarines, range boats, and range aircraft	205-310 events/year (aver. = 272); 4 to 8 hours/event	Makaha Ridge, Niihau electronic warfare site, portable sites, PMRF aircraft and range boat	N/A
Electronic Countermeasures Exercise (ECMEX)	Trains and evaluates fleet units in conducting anti-air warfare in an electronic warfare environment	One or more surface ships, one or more electronic warfare equipped aircraft, and shore-based jamming units	10-15 events/year; 4 to 8 hours/event	Makaha Ridge, Niihau electronic warfare site, portable sites, PMRF aircraft and range boats, chaff, decoys, flares	N/A

N/A = Not applicable

Table A-21: Anti-Submarine Warfare Exercises

Exercise	Purpose	Participants	Frequency and Duration	Weapons	Targets
Air Anti-Submarine Warfare Exercise (AIRASWEX)	Provides crews of anti-submarine warfare aircraft and helicopters experience in locating and pursuing underwater targets and dropping torpedo weapons	P-3 aircraft, a Light Airborne Multi-Purpose System (LAMPS) MK III helicopter, fixed wing aircraft, torpedo targets, and/or one or more submarines, and a WRB and/or helicopters for target recovery	79-89 events/year (aver. = 83); 1 week/event	Air-dropped mines, lightweight and heavyweight wire-guided long-range torpedoes launched from helicopters, aircraft, surface ships, and submarines Sensors include sonars, non-acoustic sensors, and airborne early warning radars	Underwater targets or submarine
Anti-Submarine Warfare Exercise (ASWEX)	Provides realistic training in tracking an underwater target, localizing it, and delivering a weapon	One ship, an anti-submarine warfare helicopter, a submarine or underwater target, a helicopter for target launch and recovery, a WRB, and torpedoes	1-8 events/year (aver. = 3.8); 4 to 8 hours/event	Air-dropped mines, lightweight and heavyweight wire-guided long-range torpedoes launched from helicopters, aircraft, surface ships, and submarines Sensors include sonars, non-acoustic sensors, and airborne early warning radars	Submarine or underwater target
Surface Weapons Systems Accuracy Test (WSAT)	Checks the accuracy and compatibility of shipboard fire control systems and weapons	Surface ship, an underwater target, a WRB, and a helicopter	1-4 events/year (aver. = 2.4); 13 hours/event	Air-dropped mines, lightweight and heavyweight wire-guided long-range torpedoes launched from helicopters, aircraft, surface ships, and submarines Sensors include sonars, non-acoustic sensors, and airborne early warning radars	Buoy or underwater target (torpedo)

Table A-22: Submarine Operational Exercises

Exercise	Purpose	Participants	Frequency and Duration	Weapons	Targets
Submarine Warfare Exercise (SUBEX)	Provides realistic training and evaluation for submarines and crews	Submarine, a torpedo target, a submarine target (optional), a surface target (optional), a target and torpedo recovery helicopter, and a WRB or TWR boat	81-94 events/year (aver. = 88); 2 days/event	See table A-4, appendix A	Submarines, surface ships, or standard underwater target and underwater-training minefield
Range Exercise (RANGEX)	Develops and tests tactics and develops teamwork, using multiple submarines	Multiple submarines	2-3 events/year; 3 days/event	No weapons are fired	Submarines
Torpedo Training and Certification Program (TCP)	Certifies submarines in launching torpedoes and for training submarine crews in various tactics while firing torpedoes	Submarine, a torpedo underwater target, a WRB, and a surface ship target	3-5 events/year; 8 hours/event	Torpedoes	Torpedo underwater target, WRB, surface ship target, submarine

Table A-23: Land-based Training Exercises

Exercise	Purpose	Participants	Frequency and Duration	Weapons	Targets
Mobile Inshore Undersea Warfare Exercise (MIUWEX)	Allows a Mobile Inshore Undersea Warfare (MIUW) Unit to practice/train against underwater targets	MIUW Unit, torpedo underwater target, surface ships/boats, target deployment/recovery helicopters, WRB and/or TWR, anti-submarine aircraft.	0-1 event/year; 7-10 days/event	None	Torpedoes, submarines, and surface ships
Amphibious Exercise (AMPHIBEX)	Amphibious assault training, reconnaissance training, hydrographic surveying, surf condition observance, and communication	Zodiac rubber boats, amphibious vehicles, landing craft, and helicopters	0-2 events/year (aver. = 1); from 2:00 a.m. until 9:00 p.m., 3 times a year, over a 4- to 5-day period	Simulated mines and bombs	Land-based structures on base
RIMPAC Exercise	Amphibious assault training	Amphibious vehicles, landing craft, helicopters, fixed-wing aircraft	1 event/2 years; 2-3 days/event	Small arms	Structures on base
Downed Pilot Survival Training Exercises	Provides survival and detection-avoidance training	Pilots dropped from helicopters, observers on horseback	3-5 events/year; 6-7 hours/event	N/A	N/A
Helicopter Terrain Flight Training	Provides low-altitude, terrain-following training for helicopter crews	2 to 6 helicopters from Kanehoe Marine Corps Base on Oahu	30-50 events/year; once or twice per month	N/A	N/A
Special Recon Warfare Exercises	Provides covert insertion and recon training for small Special Warfare units	Special Warfare small units, helicopters, boats, submarine	1-2 events/year; 1-4 days/event	None	Recon land sites

Table A-24: Miscellaneous Exercises and Activities

Exercise	Purpose	Participants
Midcourse Tracking Intercontinental Ballistic Missile Exercise	Supplies midcourse tracking support to other launch sites such as Vandenberg AFB	Launch site, an Intercontinental Ballistic Missile (ICBM), and other Pacific-range sites.
Tracking Exercise 200-300 events/year	Tracking of participants	Vary depending on the particular operation
Radar Calibration 5-33 events/year	Verifies radar performance and identifies any systemic problems or errors	One or more radar sites, the orbital vehicle, and the Base Operation Support Services (BOSS) computer room
Sandia Kauai Operational Launch (SKOL) 1-3 events/year	PMRF support of Sandia National Laboratories (SNL) rocket launches	SNL/KTF, PMRF, a possible satellite, and possible tracking ships/aircraft, surveillance aircraft, and boats
Strategic Target System 1-2 events/year	PMRF support of Strategic Target System rocket launches, multi-stage rocket launch is tracked by various sensors, multiple objects may be deployed to simulate a multiple independent reentry vehicle ICBM	Strategic Target System missile, KTF, PMRF, possible satellite, tracking ships, possible aircraft, missile accident emergency team, an inter-range instrumentation group, possible AMOS, and range aircraft for range clearing
Sandia Rocket Target 1-3 events/year	Research rockets with a mock warhead	KTF, PMRF, other agencies, and tracking ships/aircraft, surveillance aircraft, and boats

Table A-25: Number of Individual Operations and Actual Hours Scheduled, FY91–92 to FY95–96

Number of Individual Operations—FY91-92 to FY95–96												
	FY92 Count	% of Total	FY93 Count	% of Total	FY94 Count	% of Total	FY95 Count	% of Total	FY96 Count	% of Total	Average	Average %
Training	659	67.2	691	66.5	591	71.1	756	65.4	694	76.7	678	69.0
RDT&E	179	18.2	292	28.1	173	20.8	351	30.4	196	21.7	238	24.3
Service	132	13.5	44	4.2	54	6.5	38	3.3	7	0.7	55	5.6
FMS	11	1.1	12	1.2	13	1.6	10	0.9	8	0.9	11	1.1
Total	981		1,039		831		1,155		905		982	

Actual Hours Used—FY91-92 to FY95–96												
	FY92 Count	% of Total	FY93 Count	% of Total	FY94 Count	% of Total	FY95 Count	% of Total	FY-96 Count	% of Total	Average	Average %
Training	3,080	74.1	3,552	67.7	3,114	74.3	4,173	66.9	3,496	72.5	3,483	70.6
RDT&E	727	17.5	1,414	27	916	21.8	1,894	30.4	1,238	25.7	1,238	25.1
Service	282	6.8	212	4.0	106	2.5	113	1.8	40	0.8	151	3.1
FMS	65	1.6	66	1.3	57	1.4	57	0.9	50	1.0	59	1.2
Total	4,154		5,244		4,193		6,237		4,824		4,931	

Source: Thomason, 1996, 18 Dec, p.1.
Note: RDT&E = Research, development, test and evaluation
FMS = Foreign military sales, where U.S. allies test their naval weapons systems
FY = Fiscal Year
% = Percent

Table A-26: Number of Aircraft, 1992–1995

Type	Year			
	1992	1993	1994	1995
Helicopter	10,877	7,175	8,558	7,894
Single Engine Propeller	1,359	582	486	299
Twin Engine Propeller	2,363	2,295	2,664	2,412
Four Engine Propeller	2,793	3,352	1,481	1,210
Jet Aircraft	868	317	569	520
Total	18,260	13,721	13,758	12,335

Source: Timmer, 1997, 21 Jan, p.1.

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Appendix B
Notice of Intent, Notice of Availability, OEQC Articles, and Draft Environmental Impact Statement Executive Summary

[Federal Register: May 23, 1997 (Volume 62, Number 100)]
[Notices]
[Page 28451-28452]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr23my97-72]

DEPARTMENT OF DEFENSE
Department of the Navy
Notice of Intent To Prepare an Environmental Impact Statement for the Enhancement of the Capability of the Pacific Missile Range Facility, Kauai, HI To Conduct Missile Defense Testing and Training Activities

SUMMARY: Pursuant to Section 102(2)(c) of the National Environmental Policy Act of 1969 as implemented in the Council on Environmental Quality regulations (40 CFR parts 1500-1508), the Department of the Navy announces its intent to prepare an Environmental Impact Statement (EIS) for the enhancement of the capability of the Pacific Missile Range Facility (PMRF), Kauai, Hawaii to conduct missile defense testing and training activities. Agencies invited to cooperate in the preparation of this EIS include the Department of the Army, Department of the Air Force, Ballistic Missile Defense Organization, Coast Guard, Department of the Interior, Department of Energy, Federal Aviation Administration, and the State of Hawaii.

The 42,000-square-mile range, located on the west and north side of Kauai and in the adjacent ocean area, is currently operated as a missile test and training facility by the Navy. Congress has directed the Navy to develop a Theater Ballistic Missile Defense Program (TBMD). Implementing the program at PMRF is in accordance with the Senate Report 103-321 on the 1995 Defense Appropriations Bill, which designated PMRF as ``the primary test range for the completion of Navy (TBMD) flight tests.''

The Proposed Action is to enhance the capability of PMRF to allow testing and training for the Navy's TBMD program and for the overall DoD Theater Missile Defense (TMD) program. The no-action alternative is the continuation of PMRF's current activities in support of existing DoD test and training programs. This EIS will examine environmental impacts of developing and operating potential launch sites and tracking stations/areas. Areas being considered for the launch and/or instrumentation sites include: (1) Kauai and the Hawaiian Islands, (2) other Pacific land-based support locations, and (3) ocean areas within and outside U.S. territorial waters.

The distances between PMRF and some of the locations under consideration may exceed limitations in current international agreements related to distances for target missile flights, but they will not exceed distances to the anticipated areas of operations. Any testing would comply with current U.S. policy concerning compliance with treaties and international agreements.

In accordance with Hawaii Revised Statutes (HRS) Chapter 343, the Governor of Hawaii has determined that an EIS is required. Since the State and Federal actions and decisions are interconnected, the analyses will be documented in a single joint EIS. The decisions to be made by the State of Hawaii are: (1) Whether to revise the existing restrictive easement with the Navy to extend the easement term from January 1, 2003 to December 31, 2030, and (2) Whether to extend and/or revise other Navy leases and concur with or grant approvals as may be required for Navy use of lands in the Northwestern Hawaiian chain, to support the enhancement of PMRF to facilitate development and testing of TMD systems.

The objective of the EIS is to describe and evaluate environmental impacts of existing activities at the range (the no-action alternative), describe the alternatives for enhancing the range for purposes of testing TBMD systems, and evaluate the environmental impacts from various enhancement alternatives. Environmental resource areas that will be addressed in the EIS include air quality; biological resources, including threatened and endangered species; cultural resources; geology and soils; hazardous materials and waste; health and safety; land use; noise; socioeconomics; transportation, including airspace; utilities; visual and aesthetic resources; and water quality.

The Navy will host four scoping meetings to solicit input on significant issues that should be addressed in the EIS. Each scoping meeting will provide opportunities for clarification of the EIS and alternatives and solicit input from representatives of government agencies and interested individuals. The Navy will set up information stations at these scoping meetings. Each information station will be attended by a Navy representative who will be available to answer questions from meeting attendees. Comments will be entered into the official record via written comment sheets available at each meeting. Written comments will also be accepted via mail or fax. Regardless of the commenting method chosen, all comments will receive the same attention and consideration during EIS preparation.

The four public scoping meetings will be held at the following times and locations: (1) June 17 from 4:00-8:00 pm at the Waimea Neighborhood Center, Waimea, Kauai; (2) June 19 from 4:00-8:00 pm at the Kilauea Neighborhood Center, Kilauea, Kauai; (3) June 21 from 1:00-4:00 pm at the Wilcox Elementary School Cafeteria, Lihue, Kauai; and (4) June 23 from 4:00-8:00 pm at the US Army Reserve Center Assembly Hall, Room 101, Ft. Schafter Flats, Ft. Schafter, Oahu.

ADDRESSES: Agencies and the public are encouraged to provide written comments. To be most helpful, comments should clearly describe specific issues or topics that the EIS

[[Page 28452]]

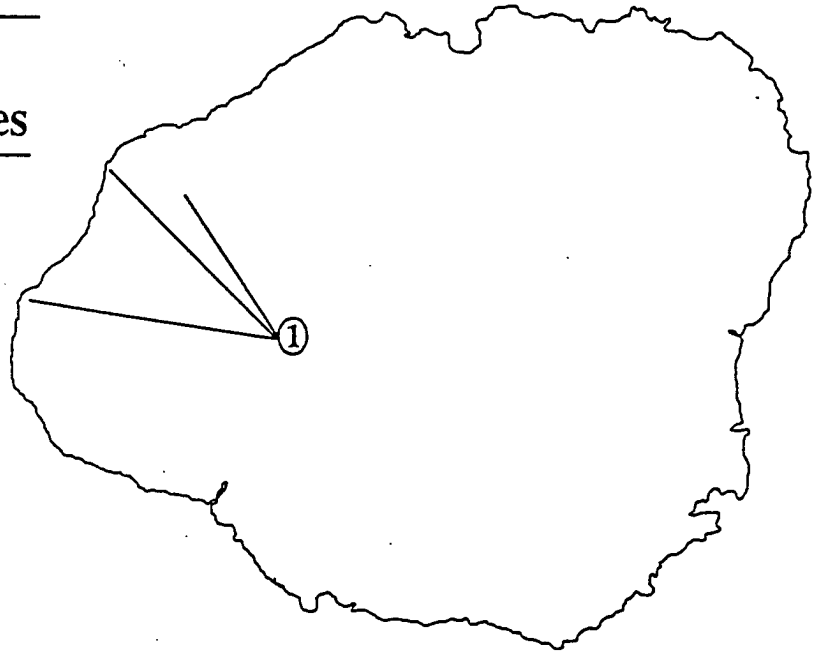
should address. Please mail written comments to: Vida Mossman, Pacific Missile Range Facility, P.O. Box 128, Kekaha, Kauai, Hawaii, 96752-0128, or send by facsimile at (808) 335-4660. Please postmark comments by June 23, 1997.

FOR FURTHER INFORMATION CONTACT: Additional information concerning this notice may be obtained by contacting Vida Mossman, Pacific Missile Range Facility, P.O. Box 128, Kekaha, Kauai, Hawaii, 96752-0128, telephone (808) 335-4740.

Dated: May 20, 1997.
D. E. Koenig,
LCDR, JAG, USN, Federal Register Liaison Officer.
[FR Doc. 97-13639 Filed 5-22-97; 8:45 am]
BILLING CODE 3810-FF-P

MAY 23, 1997

Environmental Impact Statement Preparation Notices



(1) Pacific Missile Range Enhanced Capability

District: Waimea
TMK: 1-2-02:por. 1, 15 and 24
Applicant: Department of Land and Natural Resources
1151 Punchbowl Street
Honolulu, Hawaii 96813
Contact: Gary Martin (587-0421)
Approving Agency/Accepting Authority: Governor, State of Hawaii
c/o Office of Environmental Quality Control
235 South Beretania Street, Suite 702
Honolulu Hawaii 96813
Consultant: U.S. Navy
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Hawaii 96752-0128
Contact: Vida Mossman (335-4740)
Public Comment Deadline: June 23, 1997
Status: EISPN First Notice pending public comment. Address comments to the applicant with copies to the approving agency or accepting authority, the consultant and OEQC.

The Navy is proposing to enhance the capability of the Pacific Missile Range Facility (PMRF) to allow testing and training for both the Navy's Theater Ballistic Missile Defense (TBMD) program, as directed by Congress, and other Department of Defense (DOD) agencies' Theater Missile Defense (TMD) projects. (Senate Report 103-321 and House Report 103-747) Accordingly, this Environmental Impact Statement (EIS) Preparation Notice (PN) is designed to be an informational document that evaluates the possible environmental consequences of the use of proposed State lands in support of the Navy proposal to enhance the capabilities of PMRF.

The proposed uses of State lands include modification of an existing restrictive easement granted by the State of Hawaii to the Navy regarding lands adjacent to PMRF. The modification would include expanding the types of missile launches and extending the easement term through 31 December 2030. This expansion would correspond to the renewal of other PMRF leases currently in place. Other State actions include the expansion of the leased area at Kamokala Caves and consideration of Kure Atoll in the Northwestern Hawaiian chain as a potential launch and/or instrumentation site.

The Navy's proposal assumes the continuation of existing activities at PMRF and combines these with the upgrading of existing radar, telemetry, optics, electronic warfare, and other instrumentation and communications facilities, and the construction and operation of additional target and interceptor launch sites, and sensor and instrumentation facilities that would enhance the capability of PMRF. This would potentially involve the use of certain lands not currently used by DOD in addition to the previously mentioned possible revision to the existing restrictive easement with the State of Hawaii for land adjacent to PMRF. Areas being considered for the launch and/or instrumentation sites include: (1) Kauai and the Hawaiian Islands, (2) Western Pacific support locations, (3) Vandenberg Air Force Base, and (4) ocean areas within and outside U.S. territorial waters.

DEPARTMENT OF DEFENSE

Department of the Navy

Preparation of an Environmental Impact Statement (EIS) for the Disposal and Reuse of Surplus U.S. Navy Property Located in the Territory of Guam

AGENCY: Department of the Navy, DoD.
ACTION: Notice.

SUMMARY: The Department of the Navy announces the intent to prepare an Environmental Impact Statement (EIS) for the disposal and subsequent reuse of surplus U.S. Navy property in the Territory of Guam. A public scoping workshop will be held to receive oral and written comments to identify potentially significant issues for study in the EIS and to notify parties interested in and affected by the property disposal and reuse. Federal, state and local agencies, and interested individuals are invited to be present or represented at the workshop.

DATES: Public scoping workshop date is Thursday, May 7, 1998, 7 to 9 p.m.

ADDRESSES: Public scoping workshop location is Chamorro Village Main Pavilion, Paseo Complex, Agana, Guam.

FOR FURTHER INFORMATION CONTACT: Mr. John Bigay, (808) 471–9338.

SUPPLEMENTARY INFORMATION: Preparation of this EIS is pursuant to section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969, as implemented by the Council on Environmental Quality regulations (40 CFR parts 1500–1508).

The proposed action of the EIS is disposal by the Navy and subsequent reuse of 19 parcels of land, totaling approximately 2,800 acres, at 14 sites on the island. The properties consist of developed and undeveloped land, buildings and infrastructure. The properties will be disposed of in accordance with the provisions of the Defense Base Closure and Realignment Act (Pub. L. 101–510) of 1990 as amended, and applicable federal property disposal regulations.

The properties are among those identified in a plan for Department of Defense real estate on Guam, the Guam Land Use Plan Update 1994 (GLUP 94). The GLUP reviewed all military land requirements on Guam and made recommendations for land retention and disposal based on foreseeable mission tasking and force levels.

The properties to be disposed of are identified as: the former Federal Aviation Administration (FAA) Housing Area in Dededo; the Navy Print Shop (Harmon Annex) and Marine Drive (Wettengel Junction) parcels in Dededo; Tamuning Telephone Exchange; four parcels adjacent to Naval Computer and Telecommunications Activity Master Station, Barrigada; Nimitz Hill Enlisted Housing and nearby vacant land; parcels at Sasa Valley and Tenjo Vista in Piti; a parcel at Polaris Point; a parcel near the New Apra Heights family housing area; a parcel on Route 2A in Santa Rita; Rizal or Aflleje Beach in Santa Rita; Old Apra Heights and; two parcels at the naval ordnance area in Santa Rita.

Potential reuse alternatives for the parcels are defined in a Government of Guam (GovGuam) reuse plan prepared for the GLUP 94 Reuse Planning Committee and the Guam Economic Development Authority. Excluded from consideration in this EIS are GLUP 94 Air Force properties. Also excluded are GLUP 94 Navy power plant properties and areas at the former Naval Air Station, Agana, which are being addressed as separate actions.

The EIS will analyze the proposed action, reasonable alternatives to the proposed action, and individual and cumulative environmental impacts. Alternatives considered in the EIS will be influenced by the identification of feasible future uses of the land areas. The GovGuam reuse plan features various land uses, including resort, industrial, commercial, residential, agricultural, parks, recreation, historic and conservation use.

Environmental issues to be considered will include, but are not limited to, effects on cultural resources, terrestrial and aquatic habitats, threatened or endangered species, air and water quality, infrastructure, traffic, noise, flood plain management, installation restoration and environmental clean-up, and the socioeconomic environment. Direct, indirect and cumulative impacts will be analyzed, and mitigation measures will be developed if appropriate.

The scoping workshop will provide opportunities for clarification of the U.S. Navy's action in response to Base Realignment and Closure (BRAC) decisions and subsequent identification of surplus properties, and to solicit input from representatives of government agencies and interested individuals regarding the scope of the EIS. The U.S. Navy and the Guam Economic Development Authority will set up information stations at the workshop. Each information station will be attended by a knowledgeable person who will be available to answer questions from attendees. Agency representatives and the public are encouraged to provide comments. Comments will be entered into the official record via written comment sheets available to attendees at the workshop and via summary of oral comments. To ensure accuracy of the record, it is suggested that comments be submitted in writing. All comments, oral and written, will become part of the public record and will receive attention and consideration during EIS preparation.

Written comments may also be mailed to Mr. John Bigay (Code 231), Pacific Division, Naval Facilities Engineering Command, Pearl Harbor, HI 96860–7300; or contact Mr. Bigay by telephone (808) 471–9338 or facsimile (808) 474–5909. Written comments are requested not later than May 26, 1998. Additional information concerning this notice may be obtained by contacting Mr. Leland Munson (Department of Defense Base Transition Coordinator) at (671) 339–5443 on Guam.

Dated: April 7, 1998.

Lou Rae Langevin,

Lieutenant, Judge Advocate General's Corps, U.S. Navy, Alternate Federal Register Liaison Officer.

[FR Doc. 98–9566 Filed 4–9–98; 8:45 am]
BILLING CODE 3810–FF–P

DEPARTMENT OF DEFENSE

Department of the Navy

Notice of Public Hearing for the Pacific Missile Range Facility Enhanced Capability Draft Environmental Impact Statement at Pacific Missile Range

AGENCY: Department of the Navy, DOD.
ACTION: Notice.

SUMMARY: The Department of the Navy announces that it will hold two public hearings to inform the public of the Pacific Missile Range Facility Enhanced Capability Draft Environmental Impact Statement (DEIS) findings and to solicit comments.

Federal, state, and local agencies and interested parties are invited and urged to be present or represented at the hearings. Oral statements will be heard and transcribed by a stenographer. However, to assure the accuracy of the record, all statements should be submitted in writing. All statements, both oral and written, will become part of the public record on this action and will be given equal consideration.

In the interest of available time, each speaker will be asked to limit his or her oral comments to five minutes. If longer statements are to be presented, they should be summarized at the public hearing(s) and submitted in writing either at the public hearing(s) or mailed

to the address below. Written comments on the DEIS should be mailed to the address below and must be postmarked not later than May 26, 1998 to be part of the official record.

The DEIS has been distributed to various federal, state and local agencies, elected officials, special interest groups, the media, and concerned citizens. Copies of the DEIS have also been placed in local libraries in Hawaii. A limited number of copies are available at the address below.

DATES AND ADDRESSES: Public hearing dates and locations are as follows:

1. Saturday, April 25, 1998, 10 a.m., Waimea United Church of Christ Educational Center, Waimea, Hawaii
2. Tuesday, April 28, 1998, 5 p.m., Weinberg Memorial Hall, Disabled American Veterans Park, 2685 North Nimitz Hwy., Honolulu, Oahu, Hawaii

FOR FURTHER INFORMATION, TO PROVIDE COMMENTS OR FOR A COPY OF THE DEIS CONTACT: Ms. Vida Mossman, P.O. Box 128, Kekaha, Kauai, Hawaii, 96752–0128.

SUPPLEMENTARY INFORMATION: Pursuant to Council on Environmental Quality regulations (40 CFR parts 1500–1508) implementing the procedural provisions of the National Environmental Policy Act, the Department of the Navy has prepared and filed with the U.S. Environmental Protection Agency, the Pacific Missile Range Facility (PMRF) Enhanced Capability Draft Environmental Impact Statement at Pacific Missile Range Facility. The DEIS assesses the potential impacts associated with enhancing PMRF capabilities. The Proposed Action would enable PMRF to fully accommodate the testing and training needs of the Navy's Theater Ballistic Missile Defense (TBMD) program as well as other DOD Theater Missile Defense (TMD) programs. The proposed enhancement would also serve to increase PMRF's viability in the future by providing the capability for potential customers to develop, test and train in the use of evolving defensive systems.

The DEIS analyzes additional missile launch and support locations, facility construction, launch preparation activities, missile flight tests, radar and optical tracking operations, and intercept tests in the Pacific Ocean.

Environmental issues analyzed in the DEIS for enhancing PMRF include: Air quality; airspace control; biological resources; cultural resources; geology and soils; hazardous materials and waste; safety and health; land use; noise; socioeconomics; transportation; utilities; visual and aesthetics; and water resources. In addition, the document addresses ocean areas and environmental justice.

Proposed Action

The Navy proposes to enhance capabilities of PMRF to conduct missile defense testing by (1) upgrading existing radar, telemetry, optics, electronic warfare, differential global positioning system, and other instrumentation facilities; and (2) the construction and operation of additional missile launch sites, sensor and instrumentation facilities, and a missile storage building.

Areas being considered for the launch and/or instrumentation sites include (1) Kauai and Niihau; (2) land-based support locations on Tern Island and Johnston Atoll; and (3) ocean areas within and outside U.S. territorial waters. Any testing would comply with current U.S. policy concerning compliance with treaties and international agreements.

No Action

The No-Action Alternative is the continuation of existing range and land-based training and operations; existing research development, testing and evaluation activities; and ongoing base operations and maintenance of the technical and logistical facilities that support the training and operations missions conducted at PMRF.

Dated: April 7, 1998.

Lou Rae Langevin,

LT, JAGC, USN, Alternate Federal Register Liaison Officer.

[FR Doc. 98–9561 Filed 4–9–98; 8:45 am]

BILLING CODE 3810–FF–P

DEPARTMENT OF ENERGY

Environmental Management Site-Specific Advisory Board, Department of Energy, Los Alamos National Laboratory

AGENCY: Department of Energy.

ACTION: Notice of open meeting.

SUMMARY: Pursuant to the provisions of the Federal Advisory Committee Act (Public Law 92–463, 86 Stat. 770) notice is hereby given of the following Advisory Committee meeting: Environmental Management Site-Specific Advisory Board (EM SSAB), Los Alamos National Laboratory.

DATES: Thursday, April 28, 1998: 6:00 p.m.–9:00 p.m.; 6:30 p.m. to 7:00 p.m. (public comment session)

ADDRESSES: Sweeney Center, 201 West Marcy Street, Santa Fe, New Mexico.

FOR FURTHER INFORMATION CONTACT: Ms. Ann DuBois, Northern New Mexico Citizens' Advisory Board, Los Alamos National Laboratory, 528 35th Street, Los Alamos, New Mexico 87544, (505) 665–5048.

SUPPLEMENTARY INFORMATION: Purpose of the Board: The purpose of the Advisory Board is to make recommendations to DOE and its regulators in the areas of environmental restoration, waste management, and related activities.

Tentative Agenda

6:00 p.m.
Call to Order—Agenda Approval—Minutes of Previous Meeting
6:15 p.m.
DOE Comments
6:30 p.m.
Public Comments
7:00 p.m.
Introduction of Committees
7:15 p.m.
Break
7:30 p.m.
Discussion: Bylaws, Elections, Retreat, Next Meeting
8:30 p.m.
Review of Outstanding Environmental Restoration/Waste Management Recommendations
9:00 p.m.
Adjourn

Public Participation: The meeting is open to the public. Written statements may be filed with the Committee either before or after the meeting. Individuals who wish to make oral statements pertaining to agenda items should contact Ms. Ann DuBois, at (505) 665–5048. A sign-up sheet will also be available at the door of the meeting room for members of the public to indicate their desire to address the Board. Requests must be received 5 days prior to the meeting and reasonable provision will be made to include the presentation in the agenda. The Designated Federal Official is empowered to conduct the meeting in a fashion that will facilitate the orderly conduct of business.

Minutes: The minutes of this meeting will be available for public review and copying at the Freedom of Information Public Reading Room, 1E–190, Forrestal Building, 1000 Independence Avenue, SW, Washington, DC 20585 between 9:00 a.m. and 4 p.m., Monday-Friday, except Federal holidays. Minutes will also be available by writing to Mr. Mat Johansen, Deputy Designated Federal Officer, Department of Energy, Los Alamos Area Office, 528 35th Street, Los Alamos, NM 87185–5400.

ENVIRONMENTAL PROTECTION AGENCY

[ER–FRL–5490–6]

Environmental Impact Statements; Notice of Availability

Responsible Agency: Office of Federal Activities, General Information (202) 564–7167 OR (202) 564–7153.

Weekly receipt of Environmental Impact Statements Filed March 30, 1998 Through April 03, 1998 Pursuant to 40 CFR 1506.9.

EIS No. 980106, DRAFT EIS, NPS, MI, Isle Royale National Park General Management Plan, Implementation, Keweenaw County, MI, Due: May 26, 1998, Contact: Douglas A. Barnard (906) 482–0984.

EIS No. 980107, DRAFT EIS, DOE, UT, Spanish Fork Canyon—Nephi Irrigation System (SFN) System, Construction and Operation, Bonneville Unit, Central Utah Project, Central Utah Water Conservancy District, Utah, Salt Lake and Juab Counties, UT, Due: June 15, 1998, Contact: Sheldon H. Talbot (801) 226–7105.

EIS No. 980108, DRAFT EIS, FHW, AR, MI, US–71 Transportation Improvements, from south of Bella Vista to Pineville, Benton County, AR and McDonald County, MI, Due: June 05, 1998, Contact: Elizabeth A. Romero (501) 324–5625.

EIS No. 980109, FINAL SUPPLEMENT, COE, AL, FL, GA, Lake Seminole Hydrilla Action Plan Updated Information to the Lake Seminole and Jim Woodruff Lock and Dam, Operation and Maintenance Project, Implementation, Gadsden and Jackson Counties, FL; Decatur and Seminole Counties, GA; and Houston County, AL, Due: May 11, 1998, Contact: Mike Eubanks (334) 694–3861.

EIS No. 980110, FINAL EIS, COE, CA, Upper Guadalupe River Feasibility Study, Flood Control Protection, Construction, National Economic Development Plan (NED), Santa Clara Valley Water District, City of San Jose, Santa Clara County, CA, Due: May 11, 1998, Contact: William Dejager (415) 977–8670.

EIS No. 980111, DRAFT EIS, USN, HI, Pacific Missile Range Facility Enhanced Capabilities, To Accommodate Theater Ballistic Missile Defense (TBMD) Training & Testing and Theater Missile Defense (TMD) Testing, NPDES Permit, several counties, HI, Due: May 26, 1998, Contact: Vida Mossman (808) 335–4740.

EIS No. 980112, DRAFT EIS, GSA, VA, U.S. Patent and Trademark Office (PTO) Consolidation, Acquisition of 2.4 million Rentable Square Feet with a 20-year Lease Term, Three Possible Sites: Crystal City, Carlyle and Eisenhower Avenue, VA, Due: May 26, 1998, Contact: Carl Winters (202) 401–1025.

EIS No. 980113, DRAFT EIS, COE, NJ, Brigantine Inlet to Great Egg Harbor Inlet Feasibility Study, Storm Damage Reduction Project, New Jersey Shore Protection, City of Brigantine, Brigantine Island, Along the Atlantic Coast, NJ, Due: May 26, 1998, Contact: Beth Brandreth (215) 656–6558.

EIS No. 980114, FINAL EIS, USN, CA, Long Beach Complex Disposal and Reuse, Implementation, COE Section 10 and 404 Permits, NPDES Permit, in the City of Long Beach and Los Angeles County, CA, Due: May 11, 1998, Contact: Melanie Ault (619) 532–4744.

EIS No. 980115, FINAL EIS, FHW, MN, MN-Trunk-Highway-371 (MN–TH–371) Relocation Project, New Construction, North of the entrance to the Crow Wing State Park to the existing Intersection of MN–TH–371 and MN–TH–210 in the City of Baxter, Funding and US Army COE Section 10 Permit Issuance, Crow Wing Township, Crow Wing County, MN (Tier 2 FEIS), Due: May 11, 1998, Contact: Cheryle Martin (612) 291–6120.

Dated: April 7, 1998.

Ken Mittelholtz,

Environmental Protection Specialist, Office of Federal Activities.

[FR Doc. 98–9568 Filed 4–9–98; 8:45 am]

BILLING CODE 6560–50–U

ENVIRONMENTAL PROTECTION AGENCY

[FRL–5995–2]

Notice of Public Meeting of the National Environmental Education Advisory Council

Notice is hereby given that the National Environmental Education Advisory Council, established under section 9 of the National Environmental Education Act of 1990 (the Act), will hold a public meeting on May 18th and 19th, 1998. The meeting will take place at the River Inn, 924 Twenty-Fifth Street, NW, Washington, DC from 9:00 am to 5:00 pm on Monday, May 18th and Tuesday, May 19th. The purpose of this meeting is to provide the Council with an opportunity to advise EPA's Office of Communications, Education and Media Relations (OCEMR) and the Office of Environmental Education (OEE) on its implementation of the Act. Members of the public are invited to attend and to submit written comments to EPA following the meeting.

For additional information regarding the Council's upcoming meeting, please contact Ginger Keho, Office of Environmental Education (1707), Office of Communications, Education and Media Relations, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460 or call (202) 260–4129.

Dated: March 25, 1998.

Ginger Keho,

Designated Federal Official, National Environmental Education Advisory Council.

[FR Doc. 98–9550 Filed 4–9–98; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[FRL–5994–9]

Meeting of the Ozone Transport Commission for the Northeast United States

AGENCY: Environmental Protection Agency.

ACTION: Notice of meeting.

SUMMARY: The United States Environmental Protection Agency is announcing the Annual meeting of the Ozone Transport Commission to be held on May 22, 1998.

This meeting is for the Ozone Transport Commission to deal with appropriate matters within the transport region, as provided for under the Clean Air Act Amendments of 1990. This meeting is not subject to the provisions of the Federal Advisory Committee Act, Public Law 92–463, as amended.

DATES: The meeting will be held on May 22, 1998 from 9:00 a.m. to 3:00 p.m.

ADDRESSES: The meeting will be held at: Hawthorne Hotel, On the Common, Salem, MA 01970, (978) 744–4080.

FOR FURTHER INFORMATION CONTACT:

EPA: Susan Studlien, U.S. Environmental Protection Agency—Region 1, John F. Kennedy Federal Building, Boston, MA 02203, (617) 565–3800.

THE STATE CONTACT:

Host Agency: Sonia Hamel, Executive Office of Environmental Affairs, 100 Cambridge Street, Boston, MA 02202, (617) 727–9800.

FOR DOCUMENTS AND PRESS INQUIRIES CONTACT: Stephanie A. Cooper, Ozone Transport Commission, 444 North Capitol Street, N.W., Suite 638, Washington, DC 20001, (202) 508–3840, e-mail: ozone@sso.org

that have taken place since the 1989 EIS was approved, such as the construction of the major infrastructure, mass grading operations that have been completed, traffic, and socio-economic conditions.

Draft Environmental Impact Statements

(4) Pacific Missile Range Facility Enchanced Capability

District: Waimea
TMK: 1-2-02: Por. 1, 15, and Por. 24
Applicant: U.S. Navy
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Kauai, Hawaii 96752-0128
Contact: Vida Mossman (335-4740)
Approving Agency/Accepting Authority: Department of Land and Natural Resources
Kalanimoku Building
1151 Punchbowl Street
Honolulu, Hawaii 96813
Contact: Gary Martin (587-0414)
Public Comment Deadline: May 26, 1998
Status: DEIS First Notice pending public comment. Address comments to the applicant.
Permits Required: Lease & restrictive easement from DLNR

This notifies the public that the Navy is issuing a draft environmental impact statement (DEIS) for the enhancement of the Pacific Missile Range Facility (PMRF). The DEIS assesses the potential impacts associated with enhancing PMRF capabilities. The Proposed Action would enable PMRF to fully accommodate the testing and training needs of the Navy's Theater Ballistic Missile Defense (TBMD)program as well as other Department of Defense Theater Missile Defense (TMD) programs. The proposed enhancement would also serve to increase PMRF's viability in the future by providing the capability for potential customers to develop, test and train in the use of evolving defensive systems. The DEIS analyzes additional missile launch and support locations, facility construction, launch preparation activities, missile flight tests, radar and optical tracking operations, and intercept tests in the Pacific Ocean.

Environmental issues analyzed in the DEIS for enhancing PMRF include: air quality; airspace control; biological resources (such as threatened or endangered species and wetlands); cultural resources; geology and soils; hazardous materials and waste; safety and health; land use; noise; socioeconomics; transportation; utilities; visual and aesthetics; and water resources. In addition, the document addresses ocean areas and environmental justice. In accordance with the National Environmental Policy Act (NEPA), the Navy has determined that an EIS is required to support Navy decisions. The decisions to be made by the Navy are: 1) whether to enhance the capabilities of PMRF to conduct TMD testing, evaluation, and training for both the Navy TBMD program and other DOD programs within 22.2 kilometers (12 nautical miles) of the U.S. boundary. This enhancement would include the consideration of placing additional assets at PMRF and at off-range locations to support PMRF activities. 2) Which remote sites to develop to support testing and training scenarios for Navy and other DOD TMD systems.

In accordance with Hawaii Revised Statutes (HRS) Chapter 343, an EIS is required to support the State of Hawaii decisions. Since the State and Federal actions and decisions are interconnected, the analyses have been documented in a single joint EIS. The decisions to be made by the State of Hawaii are: 1) Extend the term of the existing easement from 2003 to 2030. This existing easement allows PMRF to restrict public access to a) less than 70 acres of the 140 acre Polihale State Park and b) 2,039 acres of lands in sugar cane for no more than four hours for no more than 30 times each year. This action will require these lands to remain in their present non-commercial uses. 2) Add approximately 50 acres to an existing 74.5-acre lease from the State to the Navy at the Kamokala ordnance storage magazines from the State to the Navy. The lease is needed for additional ordnance storage; a new ordnance shed will be built on the leased area. 3) Whether to add an easement for approximately 136 acres to insure that no development will occur in an area presently in sugar cane for the Explosive Safety Quantity Distance area related to the Kamokala Magazines. The Navy will pay the State fair market value. Recreation, rural, agricultural, and fishing uses are all compatible with the proposed military uses.

Individuals or organizations may provide comments or request a copy of the DEIS by writing to: Ms. Vida Mossman P.O. Box 128, Kekaha, Kauai, Hawaii, 96752-0128. In addition, individuals or organizations may offer verbal or written comments at public meetings to be held at the following times and locations:

Waimea United Church of Christ Education Center, Waimea, Kauai, April 25, 1998; 10:00 a.m.

Disabled American Veterans Hall, Honolulu, Oahu, April 28, 1998; 5:00 p.m.

Interested citizens and public officials will be able to receive pertinent information regarding the findings of the Draft EIS at these meetings. Public comments are invited through May 26, 1998. The Navy intends to issue the Final EIS in July 1998.

Land Use Commission Notices

Haliimaile Residential Subdivision

The LUC has received the following request regarding a proposed district boundary amendment pursuant to Chapter 205, Hawaii Revised Statutes:

Docket No.:	A98-723
Petitioner:	A&B Properties, Inc.
Location:	Haliimaile, Maui
Acreage:	62.994 acres
TMK:	2-5-03: portion of 10
Request:	Reclassification of State Land Use Agricultural District lands to the Urban District.
Date Filed:	February 26, 1998

If you would like further detailed information on this matter, please contact:

State Land Use Commission

Location Address
Leiopapa A Kamehameha Building
(State Office Tower)
235 S. Beretania Street, Room 406
Honolulu, Hawaii 96813

Mailing Address
P.O. Box 2359
Honolulu, Hawaii 96804-2359

Phone: 587-3822

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PACIFIC MISSILE RANGE FACILITY DRAFT ENVIRONMENTAL IMPACT STATEMENT EXECUTIVE SUMMARY

INTRODUCTION

This document is a joint State of Hawaii and United States Navy Environmental Impact Statement (EIS) that provides a comprehensive environmental analysis to support State and Federal decisions concerning the use of State, Federal, and private lands to support range enhancements at the Pacific Missile Range Facility (PMRF) at Barking Sands, Kauai, Hawaii. This Draft EIS (DEIS) analyzes the environmental impacts of the Navy's proposal to enhance the capability of PMRF to accommodate the Department of Defense's (DOD) Ballistic Missile Defense (BMD) testing, evaluation, and training. Since the State and Federal actions and decisions are interconnected, the analyses will be documented in this joint EIS. By providing for joint preparation, excessive paperwork is reduced. In addition, since actions are proposed to occur both inside and outside U.S. territorial waters, this document complies with both the National Environmental Policy Act (NEPA) and Executive Order 12114, *Environmental Effects Abroad of Major Federal Actions.*

Hawaii Revised Statutes (HRS) Chapter 343 and its implementing rules (Title 11, Chapter 200, Hawaii Administrative Rules, Department of Health) require that systematic consideration be given to the environmental and social consequences of any State agency action, including the use of State or county lands. Use of State or county lands includes any grant of title, lease, permit, easement, license, or entitlement to those lands. The proposed uses of State lands include modification of the existing lease of exclusive easement granted by the State of Hawaii in 1993 to the Navy regarding lands adjacent to PMRF. This modification would address missile launches that generate the need to utilize State lands as a ground hazard area and extend the term of that existing easement from 1 January 2003 to 31 December 2030. This extension would bring this easement in conformity with other existing PMRF leases expiring in 2029 and 2030. Another State action is the expansion of the current leased area at Kamokala Magazines storage magazines by approximately 20 hectares (ha) (50 acres [ac]) and the establishment of an associated safety easement limiting building of structures and habitation by the public, or commercial structures. The current Kamokala Magazine lease ends on 19 August 2029. Both the proposed expansion lease and the safety easement expiration dates would be 19 August 2029.

The National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulation implementing NEPA (Title 40, Code of Federal Regulations 1500-1508), DOD Directive 6050.1, *Environmental Effects in the United States of Department of Defense Actions* and *Environmental and Natural Resources Program Manual* (OPNAVINST 5090.1B) direct the Navy and DOD officials to consider environmental consequences when making decisions to authorize or approve Federal actions. In addition, Executive Order 12114, *Environmental Effects Abroad of Major Federal Actions,* requires consideration of environmental effects in decisions for actions outside the United States or its territories.

PURPOSE AND NEED FOR THE PROPOSED ACTION

Congress has directed DOD to develop a highly effective Theater Missile Defense (TMD) program to defend our armed forces abroad and our friends and allies from theater missile attacks. No fully effective defense against these missiles currently exists. However, theater missiles are being developed and/or purchased by many nations, some of which are not friendly to the U.S. Congress tasked the DOD's Ballistic Missile Defense Organization (BMDO) to develop this system in cooperation with all elements of U.S. Armed Services.

Theater Ballistic Missile Defense (TBMD) is the name of the Navy program that is a part of the overall DOD TMD program. The Proposed Action would enable the Pacific Missile Range Facility (PMRF) to fully accommodate the testing and training needs of the Navy's TBMD program and other DOD TMD programs as well. This proposed enhancement would also increase PMRF's viability in the future by providing more capability for potential customers to develop, test and train.

To fully accomplish these objectives, continued use of some State and private land by PMRF is needed. For State lands, (1) the term of an existing restrictive easement needs to be extended and (2) the lease of some additional State land is proposed.

Revision of the existing restrictive easement involves only changes in the types of missile launches for which the easement may be used and in the number of years that the easement is in effect. The number of times that State property would be closed to public access would not change and the amount of State land involved would not change. The proposed lease of some other State land would provide for additional explosives storage facilities and an associated safety zone.

NO-ACTION ALTERNATIVE AND PROPOSED ACTION

The No-action Alternative is the continuation of (1) existing range and land-based training and operations, (2) existing research, development, testing, and evaluation (RDT&E) activities, and (3) ongoing base operations and maintenance of the technical and logistical facilities that support the training and operations missions conducted at PMRF.

The Proposed Action assumes the continuation of existing activities at PMRF. The Proposed Action combines the activities of the No-action Alternative with slight increases in activities of a similar nature. It also combines these activities with (1) the upgrading of existing radar, telemetry, optics, electronic warfare, differential global positioning system, and other instrumentation facilities, and (2) the construction and operation of additional missile launch sites, sensor and instrumentation facilities, and a missile storage building that would enhance the capability of PMRF as guided by Congress to support TBMD and TMD activities.

Areas being considered for the launch and/or instrumentation sites include: (1) Kauai and Niihau, (2) other Pacific land-based support locations (Tern Island and Johnston Atoll), and (3) ocean areas within and outside U.S. territorial waters. Any testing would comply with current U.S. policy concerning compliance with treaties and international agreements.

The proposed use of State lands would occur under the Proposed Action to enhance the capabilities of PMRF to support TBMD and TMD. Under the Proposed Action, the use of State Lands would involve the renewal of the existing restrictive easement to 31 December 2030 when the current agreement expires on 31 December 2002. The basic conditions of the restrictive easement (30 activations per year) would not change from those in the current agreement, except it would allow for the activation for the missiles to support both TBMD and TMD. In addition, under the Proposed Action the lease of State lands at Kamokala Magazines, would be expanded to permit the Navy to accommodate additional storage of ordnance and related ESQD arcs until 19 August 2029.

Areas analyzed as part of the No-action Alternative and Proposed Action include PMRF (PMRF/Main Base; Restrictive Easement (ground hazard area); Makaha Ridge; Kokee; Kamakola Magazines; and Port Allen, Kauai), PMRF support sites (Niihau; Kaula; Maui Space Surveillance System, Maui; Kaena Point, Oahu; Wheeler Network Segment Control/PMRF Communication Sites, Oahu; Department of Energy Communication Sites, Kauai and Oahu); candidate sites (Tern Island and Johnston Atoll); and Ocean Area (outside U.S. territory).

DECISIONS TO BE MADE

The decisions to be made by the State of Hawaii are (1) whether to revise the existing restrictive easement with the Navy to expand the types of missile launches and extend the easement term from 1 January 2003 to 31 December 2030; and (2) whether to extend and/or revise other Navy leases and concur with or grant approvals as may be required for Navy use of lands to support the enhancement of PMRF to facilitate development and testing of TMD systems. The Governor of Hawaii would be the accepting authority for the analysis, as well as the approval authority for the State Proposed Action.

Neither the No-action Alternative nor the Proposed Action conflicts with any land use plans, policies, or controls. A determination of compatibility on the use of Tern Island within the Hawaiian Island National Wildlife Refuge will be made by the USFWS. This compatibility determination will be based on the intended purpose of the refuge and the activities planed for that site. PMRF would revise the current restrictive easement with the State of Hawaii for the continued use of lands for safety purposes adjacent to the facility for missile launching activities. In addition, PMRF would obtain a lease and restrictive easement for the construction and use of two new ordnance storage magazines on Kauai.

NEPA-related decisions to be made by the Federal Government are (1) whether to enhance the capabilities of PMRF to conduct TMD testing, evaluation, and training for both the Navy TBMD program and other DOD programs within 22.2 km (12 nmi) of the U.S. boundary. This enhancement would include the consideration of placing additional assets at PMRF and at off-range locations to support PMRF activities; and (2) which remote sites to develop to support testing and training scenarios for Navy and other DOD TMD systems.

The decision-maker for the Federal Government is the Secretary of the Navy for Installations and Environment.

SCOPE OF THE STUDY

This DEIS evaluates the potential environmental effects of the No-action Alternative and proposed enhancement of test and training capabilities of PMRF, including additional launch, instrumentation, and support sites and various levels of testing and training intensities. The DEIS also discusses the potential impacts of revising the existing easement with the State of Hawaii for land adjacent to PMRF for an additional 28-year period as well as other potential land use agreements to provide for buffer zones adjacent to PMRF and an off-site storage facility. The DEIS addresses all of the measurably foreseeable activities in the particular geographical areas affected by the No-action and Proposed Action and focuses on the activities ripe for decision. Because the Proposed Action requires the use of State of Hawaii lands (revision of the restrictive easement and the potential use of other land), this DEIS also assesses the environmental consequences of the Proposed Action in accordance with Hawaii law. The DEIS embraces both Federal and State requirements and provides necessary analyses to allow agencies at all levels to fully consider the environmental effects of their decisions.

SUMMARY OF ENVIRONMENTAL IMPACTS

This section describes the potential environmental effects from implementing the No-action Alternative and the Proposed Action. The environment is analyzed in terms of 14 resource areas: air quality, airspace, biological resources, cultural resources, geology and soils, hazardous materials and hazardous waste, health and safety, land use, noise, socioeconomics, transportation, utilities, visual and aesthetic resources, and water resources. In addition, an evaluation of the ocean area outside the territorial limits of the United States and an environmental justice analysis were conducted. Each resource area is discussed at each location unless the No-action Alternative and Proposed Action activities at that location would not foreseeably result in an impact. The data presented are commensurate with the importance of the potential impacts in order to provide the proper context for evaluating impacts. For some locations, it was determined through initial evaluation that no impacts would occur. These sites are briefly discussed within the DEIS and are summarized below. Table ES-1 provides a summary of the environmental consequences associated with the implementation of the No-action Alternative and Proposed Action at each of the locations evaluated. The environmental consequences of the State of Hawaii actions are included within the Restrictive Easement and Kamokala Magazines columns in table ES-1. Environmental consequences under the jurisdiction of Executive Order 12114 are included within the Ocean area. The information in the table is based on the environmental impact analysis presented in chapter 4 of this DEIS. The level of impacts shown in table ES-1 are defined as:

- **No Impact**—No impact is predicted.
- **No Adverse Impact**—An impact is predicted, but the impact does not meet the intensity or context criteria needed to trigger a regulatory requirement or impact the quality of the human or natural environment.
- **Adverse Impact**—An impact is predicted that meets the intensity or context criteria necessary to trigger a regulatory requirement or impact the quality of the human or natural environment.

Table ES-1: Summary of Potential Environmental Consequences

LOCATION	PMRF/ Main Base		Restrictive Easement (Ground Hazard Area)		Makaha Ridge		Kokee		Kamokala Magazines		Port Allen		Niihau		Kaula		Kaena Point		Maui Space Surveillance System		Wheeler Network Segment Control/PMRF		DOE Comm. Sites		Tern		Johnston Atoll		Ocean Area (Outside U.S. Territory)	
RESOURCE	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed	No-action	Proposed
Air Quality	△	△	△	△	△	△	△	△	□	△	△	△	△	△	□	□	□	□	□	□	□	□	□	□	□	△	□	△	□	□
Airspace	△	△	□	□	□	□	□	□	□	□	□	□	□	■	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	△
Biological Resources	△	△	△	△	△	△	△	△	□	△	□	□	△	■	△	△	□	□	□	□	□	□	□	□	□	■	□	△	△	△
Cultural Resources	△	△	□	□	△	△	△	△	△	△	□	□	△	△	□	□	□	□	□	□	□	□	□	□	□	□	□	△	□	□
Geology and Soils	△	△	□	□	△	△	△	△	△	△	□	□	□	△	■[2]	■[2]	□	□	□	□	□	□	□	□	□	△	□	△	□	□
Hazardous Materials and Hazardous Waste	△	△	□	□	△	△	△	△	□	□	△	△	△	△	□	□	□	□	□	□	□	□	□	□	□	△	□	△	□	□
Health and Safety	△	△	□	□	△	△	△	△	△	△	△	△	△	△	△	△	□	□	□	□	□	□	□	□	□	△	□	△	□	△
Land Use	△	△	△	△	□	□	△	△	△	△	□	□	△	△	△	△	□	□	□	□	□	□	□	□	□	△	□	△	□	□
Noise	△	△	△	△	△	△	△	△	□	□	△	△	△	△	□	□	□	□	□	□	□	□	□	□	□	△	□	△	□	□
Socioeconomics	+	+	△	△	□	□	□	□	□	□	□	□	□	+	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
Transportation	□	△	△	△	□	□	□	□	□	□	□	△	□	+	□	□	□	□	□	□	□	□	□	□	□	+	□	△	□	□
Utilities	□	□	□	□	■[1]	■[1]	■[1]	■[1]	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	△	□	△	□	□
Visual and Aesthetics	△	△	□	□	△	△	△	△	□	△	□	□	△	△	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
Water Resources	△	△	□	□	□	□	△	△	△	△	□	□	□	△	□	□	□	□	□	□	□	□	□	□	□	△	□	△	□	□
Environmental Justice	△	△	△	△	□	□	□	□	□	□	□	□	△	△	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□

EXPLANATION

□ **No Impact**: No impact is predicted.

△ **No Adverse Impact**: An impact is predicted, but the impact does not meet the intensity or context criteria needed to trigger a regulatory requirement or impact the quality of the human or natural environment.

■ **Adverse Impact**: An impact is predicted that meets the intensity or context criteria necessary to trigger a regulatory requirement or impact the quality of the human or natural environment.

\+ **Beneficial Impact**: An impact is predicted to have a beneficial effect on the quality of the human or natural environment.

Notes:

1 Both on-going and proposed activities would continue to contribute to the existing water shortage until a new well is on-line within one to two years.

2 Adverse impact due to permanent adverse soil and geologic effects from past ordnance explosions.

es1

- **Beneficial Impact**—An impact is predicted to have a beneficial effect on the quality of the human or natural environment.

There are no unresolved issues to the No-action Alternative and Proposed Action.

A listing of State of Hawaii permits or approvals is contained in appendix H, Potential Permits, Licenses, and Entitlements Required. Laws and regulations considered are provided in appendix J.

No-action Alternative

Under the No-action Alternative, three locations (Makaha Ridge, Kokee and Kaula) evaluated in this DEIS were predicted to have adverse impacts (see table ES-1). For each location analyzed in the DEIS, potential adverse impacts are discussed below. For all remaining locations, either no impacts or no adverse impacts were predicted to arise from implementation of the No-action Alternative.

Makaha Ridge. For utilities, on-going activities at Makaha Ridge would continue to have an adverse impact on the water shortage that exists in the water supply system that supplies water to Makaha Ridge form the State of Hawaii water main at Kokee State Park until a new well is on-line within 1 to 2 years. Currently a mandatory water conservation program is in effect.

Kokee. For utilities, on-going activities at Kokee Park would continue to have an adverse impact on the water shortage that exists in the water supply system that supplies water from the State of Hawaii water main at Kokee Park, the same system that supplies Makaha Ridge. This is expected to continue until a new well is on-line within 1 to 2 years. Currently a mandatory water conservation program is in effect.

Kaula. The No-action Alternative is the continued use of the southeast end of Kaula to train aviators in air-to-surface weapons delivery. Authorized ordnance includes aircraft cannon rounds. Permanent adverse soil and geologic effects have been noted by the Navy resulting from shattering of rocks in explosions and the possibility of both live and inert ordnance (duds) which may remain in the target area (Department of the Navy, 1980). The Navy minimizes the impact by managing the targeting to the distal southeast tip of the island, approximately 8 percent of the total land mass (Department of the Navy, 1980).

Proposed Action

Under the Proposed Action, six locations (Makaha Ridge, Kokee, Niihau, Kaula, and Tern Island) evaluated in this DEIS were predicted to have adverse impacts. For each of these locations the adverse impacts are discussed below. Either no impacts or no adverse impacts to any of the environmental resources analyzed in this DEIS from implementation of the Proposed Action would be expected for the remaining locations.

Makaha Ridge. Proposed activities would not result in an increase in the amount of water use at Makaha Ridge. However, the existing adverse impacts to the water supply may continue until a new well is drilled.

Kokee. Proposed activities would not result in an increase in the amount of water use at Kokee. However, the existing adverse impacts to the water supply may continue until a new well is drilled.

Niihau. Activation of the proposed Restricted Area over the Aerostat site on Niihau would have the potential to impact the V-16 en route low altitude airway that crosses the middle of the island. The proposed 5.6 km (3-nmi) radius Restricted Area, from ground level to 5,182 m (17,000 ft) surrounding both proposed sites would lie within the boundaries of the airway, which extends from the surface up to, but not including 5,486 m (18,000 ft) mean sea level, and 7.4 km (4 nmi) either side of the airway's center line. As such, whenever the Aerostat is used and the Restricted Area is activated at either proposed site, traffic on the V-16 airway would be required to change from its regular flight course, and would represent an adverse impact to the region of influence's en route airways.

Adverse impacts to marine biological resources may occur. Additional traffic at the existing logistics landing sites and other landing craft landing areas may disturb monk seals that are hauled out to bask, or possibly pup, on the sandy beach areas. Disturbance of green sea turtle nesting sites at the existing logistics landing sites and other sandy beach areas could also occur. However, the operational activities of the Proposed Action are not expected to affect viability or jeopardize the continued survival of either of these two sensitive species.

Kaula. Because no activities are planned for Kaula other than those described in the No-action Alternative, no additional impacts are anticipated.

Tern Island. Terrestrial and marine biological resources at Tern Island may experience impacts resulting from the Proposed Action. Removal of some habitat and physical disturbance of nesting seabirds and migratory shore birds during construction of launch pad(s) are expected to cause an impact. Construction related noise is expected to disturb the Hawaiian monk seals in areas close to the construction site, depending on the site's proximity to the monk seal use area. The increased noise, in conjunction with the increased presence of, and activity by, humans (construction workers and project technical advisors), could also have an adverse impact on the seals present in the area. Green sea turtles basking or nesting in areas close to the construction could be disturbed by the noise and activity by workers.

Dredging to provide added surface area to the island for construction of launch facilities, and to increase depth of current channels to allow the MATSS and the tugboat access to the western end of the island would increase turbidity in the lagoon. Increases in turbidity may increase the presence of the microscopic algae *Cigutera* and therefore the incidence of ciguatoxins in the fish in the vicinity of Tern Island. There is some indication that ciguatoxins adversely affect monk seals. Because the dredging activity would be localized, the potential impact of the dredging is not expected to jeopardize the survival of the species, and geological studies would be conducted in close coordination with the USFWS before dredging began.

Launch noise could impact Hawaiian monk seals by startling them and causing them to flee into the water. This could injure pups, and put adults, pups, and juveniles at risk to shark predation. The effects of noise on monk seals hauled out on islands downrange but within the area affected by sonic booms can be expected to be similar to that near the

launch site. The potential effects of noise on the population at Tern Island could disturb the monk seals. However, with the limited number of launch events (four per year) and the short term nature of the events, the species is not expected to be jeopardized. With implementation of restrictions on the access of project personnel to the beach areas used by the monk seal, impacts due to increased human activity on the island should be minimized and result in a negligible impact on the monk seal for this aspect of the Proposed Action.

Appendix C
Leases and Easements

Existing Easement

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LEASE OF EXCLUSIVE EASEMENT

THIS INDENTURE, made and entered into this 1st day of January, 1994, by and between the STATE OF HAWAII, by its Board of Land and Natural Resources, hereinafter referred to as the "GRANTOR", and the UNITED STATES OF AMERICA, hereinafter referred to as the "GRANTEE", represented by the Commander, Pacific Division, Naval Facilities Engineering Command, Pearl Harbor, Hawaii 96860.

WHEREAS, the GRANTEE operates the Pacific Missile Range Facility, Hawaiian Area, at Barking Sands, Kauai, Hawaii, hereinafter referred to as the "FACILITY", to provide major range services for training, tactics development, and evaluation for air, surface, and subsurface weapons systems by Pacific Fleet units, and to support U.S. Department of Defense, including Ballistic Missile Defense Organization (BMDO), and other government projects involved with the launching and tracking of and collection of data associated with guided missiles and satellites, and space vehicle research, development, evaluation and training programs; and

WHEREAS, these programs involve missile launching operations for which the establishment of ground hazard safety areas, hereinafter referred to as "GHAs", is considered essential to safeguard the safety, health, and welfare of persons not directly associated with said operations and activities by controlling the land uses therein on a temporary basis; and

WHEREAS, the GRANTEE plans 11 launches over the term of this easement with a GHA of 10,000 feet and 72 launches over the term of this easement with a GHA of 6,000 feet; and

WHEREAS, the Commanding Officer, Pacific Missile Range Facility requires the evacuation of all unauthorized and non-essential personnel from a GHA for standard safety precautions just prior to and after a missile launch; and

WHEREAS, the non-GRANTEE controlled lands affected by the GHA are owned by the GRANTOR and are portions of the land outleased to the Kekaha Sugar Company, Limited for agricultural purposes under General Lease No. S-4222.

WITNESSETH THAT:

The GRANTOR, for and in consideration of the sum of $319,000.00, the receipt of which is hereby acknowledged, and of the terms, conditions, and covenants herein contained, to be kept, observed, and performed, does hereby grant and convey unto the GRANTEE and its assigns, for a period of nine (9) years from January 1, 1994 to December 31, 2002, an easement in, over, under and across the following described lands owned by the GRANTOR for the establishment and maintenance of GHAs in connection with operations of the GRANTEE:

All that land situated at Mana, Waimea (Kona), Kauai, State of Hawaii, identified as Parcels 1 and 2, containing 2,039.185 acres and 69.579 acres, respectively, as more fully described in Exhibit "A", attached hereto and made a part hereof by reference.

THE GRANTEE COVENANTS AND AGREES WITH THE GRANTOR AS FOLLOWS:

1. Use of the property within the easement area is hereby limited and restricted in favor of the GRANTEE as follows:

a. Parcel "1" may only be used for agricultural purposes, such as the growing of crops and the grazing of cattle;

b. Parcel "2" may only be used for public recreational (park) purposes; and

c. No building or structure shall be constructed or permitted within the easement area without the prior written consent of the GRANTEE.

2. Subject to the limitations of paragraphs 3 and 4 hereof, the GRANTEE may use the easement area as GHAs for STARS and VANDAL missile launching operations from the FACILITY. For this purpose, the GRANTOR hereby conveys to the GRANTEE the following rights in order that the GHAs may be verified clear of all persons twenty (20) minutes before a scheduled launch; namely, the right to:

a. Enter the easement area and notify all persons therein either orally or in writing or by the posting of appropriate signs that a launch is pending and that they will be required to leave at a specific time;

b. Close off all roads leading into the easement area;

c. Prohibit the entry of all persons into the easement area;

d. Exclude all persons from the easement area; and

e. Post guards within the easement area, it being the intent of this easement to give the GRANTEE exclusive control over access to and use of the easement area during said period.

3. The GRANTEE may exercise the rights conveyed by paragraph 2 above beginning three (3) hours before a scheduled launch. The easement area shall be reopened shortly after a successful launch when safety personnel of the GRANTEE declare the area safe. In the event hazardous conditions exist in the GHAs after a launch, said safety personnel may continue to maintain exclusive control over the easement area until it is safe for the general public to reenter the area.

4. The GRANTEE may exercise the rights conveyed by paragraph 2 above up to thirty (30) times during each annual period of this indenture, the first such annual period commencing as of January 1, 1994.

5. The GRANTEE will delay a launch to permit the passage of emergency vehicles and equipment .

6. The GRANTEE shall provide procedures and responsibilities for launches and emergencies, including the coordination with County and civil defense agencies.

7. The GRANTEE shall develop a protection plan for known historic sites, if any, in the affected area.

8. The GRANTEE shall also have the right to post permanent warning signs at the edge of and within the easement area advising the general public of the existence of the GHAs and that the area is subject to closure during planned missile launches.

9. THE GRANTEE hereby agrees to clean up any debris or any releases of hazardous substances resulting from its launches in accordance with all federal and applicable State and local environmental laws. It is the intent of the parties that the obligations of this section survive the expiration of the underlying document.

10. The GRANTEE will notify the GRANTOR, through the Department of Land and Natural Resources and Department of Transportation, and any lessee of the GRANTOR leasing lands within the GHA at least seven (7) calendar days prior to each scheduled launch requiring the exercise of the above rights and specify the relevant GHA and the sections of roadway that will be affected by the launch.

11. The GRANTOR reserves to itself and its successors and assigns all such rights and privileges in the easement area as may be used and enjoyed without interfering with or abridging the rights granted to the GRANTEE by this indenture. The GRANTOR, also, hereby reserves the right to maintain, repair or replace in their present condition and at their present locations all existing structures, including but not limited to buildings roadways, power and telephone poles, now within the easement area.

12. The GRANTEE shall be responsible for any claims for personal injury or damage to property caused by or resulting from a launch or other activities in conjunction with its use of the easement area herein described, as provided in the Federal Tort Claims Act (62 Stat. 869-982; 28 U.S.C. 2671-2680), the Military Claims Act (10 U.S.C. 2731-2734), and other applicable laws.

13. The GRANTOR will not be responsible for any loss liability, claim or demand for property damage, property loss or personal injury including, but not limited to, death arising out of any injury or damage caused by, or resulting from, any act or omission of the GRANTEE in connection with the GRANTEE's use of the easement area.

14. Should there be any contaminants or pollutants found within the easement area as a result of the launches which significantly threaten the public health, and which have not been previously discussed in the environmental documents for the project, the grant of easement shall be terminated.

IN WITNESS WHEREOF, the STATE OF HAWAII, by its Board of Land and Natural Resources, has caused the seal for the Department of Land and Natural Resources to be hereunto affixed and the parties hereto have caused this indenture to be executed as of the day, month, and year first above written.

STATE OF HAWAII

Approved by the Board of Land and Natural Resources at its meeting held on November 19, 1993

By _____
Chairperson and Member
Board of Land and
Natural Resources

GRANTOR

By _____

J. MICHAEL KILIAN
Director, Real Estate Division
Pacific Division, Naval Facilities Engineering Command
Real Estate Contracting Officer

GRANTEE

APPROVED AS TO FORM:

_____
Deputy Attorney General

Date: December 21, 1993

Restrictive Easement (Ground Hazard Area) Example Revision

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EXAMPLE

Navy Identification No. N6274293RP00075

AMENDMENT TO LEASE OF EXCLUSIVE EASEMENT
(GENERAL LEASE NO. S-5352)

THIS INDENTURE, made and entered into this ____ day of _____, 1998, by and between the STATE OF HAWAII, by its Board of Land and Natural Resources, hereinafter referred to as "GRANTOR" and the UNITED STATES OF AMERICA, hereinafter referred to as the "GRANTEE", represented by the Commander, Pacific Division, Naval Facilities Engineering Command, Pearl Harbor, Hawaii 96860-7300.

WITNESSETH THAT:

WHEREAS, by General Lease No. S-5352, dated and effective January 1, 1994, for a term of nine (9) years, the GRANTOR did grant and convey unto the GRANTEE an easement in, over, under and across certain lands situate at Mana, Waimea (Kona), Kauai, Hawaii, subject to the terms, covenants and conditions set forth therein; and

WHEREAS, the GRANTEE desires to continue missile launching operations from the Pacific Missile Range Facility, including but not limited to the launching of STARS and VANDAL missiles, beyond the present expiration date of General Lease No. S-5352; and

WHEREAS, these launching operations require the periodic establishment of a ground hazard safety area; and

WHEREAS, the GRANTEE desires the right to continue to exercise exclusive control over and access to and use of the easement area not more than thirty (30) times per year; and

WHEREAS, the GRANTEE requested said lease of exclusive easement be amended to extend the term to December 31, 2030, to provide for this continuing requirement; and

WHEREAS, Board of Land and Natural Resources, at its meeting held on _____, 1998, with the concurrence of the State Forester, approved the amendment of General Lease No. S-5352 to extend the term to December 31, 2030,

NOW, THEREFORE, in consideration of (insert amount per appraisal) Dollars ($), the receipt of which is hereby acknowledged, General Lease No. S- 5352 is hereby amended as follows:

1. The term is hereby extended to December 31, 2030.

EXAMPLE

2. The words "STARS and VANDAL" are hereby deleted from Paragraph 2.

Except as herein amended, all term and conditions of General Lease No. S-5352 shall continue in full force and effect.

IN WITNESS WHEREOF, the STATE OF HAWAII, by its Board of Land and Natural Resources, has caused the seal of the Department of Land and Natural Resources to be hereunto affixed and the parties hereto have caused this indenture to be executed as of the day, month and year first written above.

STATE OF HAWAII

By: _____
Chairman and Member
Board of Land and
Natural Resources

And By: _____
Member
Board of Land and
Natural Resources

UNITED STATES OF AMERICA

By: _____

Approved as to Form:

_____
Deputy Attorney General
Dated: _____

EXAMPLE

Navy Identification No. N6274293RP00076

AMENDMENT TO GRANT OF EASEMENT

THIS INDENTURE, made and entered into this ____ day of _____, 1998, by and between AMFAC SUGAR–KAUAI, a Hawaii Corporation, whose postal address is c/o Amfac/JMB Hawaii, Inc., 700 Bishop Street, P.O. Box 3230, Honolulu, Hawaii 96801, hereinafter called the "GRANTOR", and the UNITED STATES OF AMERICA, represented by the Commander, Pacific Division, Naval Facilities Engineering Command, Pearl Harbor, Hawaii 96860-7300, hereinafter referred to as the "UNITED STATES".

WITNESSETH THAT:

WHEREAS, by that Grant of Easement recorded in the Bureau of Conveyances as Document No. 94-010951, dated and effective January 11, 1994, for a term of nine (9) years, the GRANTOR did grant and convey unto the UNITED STATES an easement in, over and under all that land situated at Mana, Waimea (Kona), Kauai, Hawaii, identified as Parcel 1-A, containing 1.324 acres, subject to the covenants set forth therein; and

WHEREAS, the Government desires that the term of the easement be extended to August 19, 2029,

NOW, THEREFORE, in consideration of the sum of (insert amount per appraisal) Dollars ($), the receipt of which is hereby acknowledged, said Grant of Easement is hereby amended as follows:

1. The term is hereby extended to December 31, 2030.
2. Paragraph 16 is amended to delete the date "December 31, 2002" and insert the date "December 31, 2030".

Except as herein amended, all terms and conditions of said Grant of Easement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this indenture as of the day and year first written above.

EXAMPLE

EXAMPLE

AMFAC SUGAR–KAUAI

By: _____
Its

UNITED STATES OF AMERICA

By: _____

STATE OF HAWAII)
) ss.
CITY AND COUNTY OF HONOLULU)

On this _____ day of _____, _____, before me appeared _____, to me personally known, who, being by me duly sworn, did say that he is the _____ of AMFAC SUGAR–KAUAI and that the seal affixed to the foregoing instrument is the corporate seal of said corporation, and that the instrument was signed and sealed in behalf of said corporation by authority of its Board of Directors; and said officer acknowledged the execution of said instrument to be a free act and deed of said corporation.

_____
Notary Public, State of Hawaii

My commission expires _____

EXAMPLE

Kamokala Magazines Example Lease and Explosive Safety Quantity-Distance Easement

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EXAMPLE

Navy No. N6274298RP00___

GENERAL LEASE NO. S-3852

THIS INDENTURE, made and entered into this _____ day of _____, 1998, by and between the STATE OF HAWAII, by its Board of Land and Natural Resources, hereinafter referred to as the "Lessor" and the UNITED STATES OF AMERICA, hereinafter referred to as the "Government", represented by the Commander, Pacific Division, Naval Facilities Engineering Command, Pearl Harbor, Hawaii 96860-7300.

WITNESSETH THAT:

WHEREAS, by General Lease No. S-3852, dated and effective August 20, 1964, for a term of sixty-five (65) years, the Lessor leased and demised unto the Government four (4) tracts of land together with appurtenant road access and utility rights-of-way, situate at Mana, Waimea (Kona), Kauai, Hawaii, subject to the terms, covenants and conditions set forth therein; and

WHEREAS, the Government requested said lease be amended to add approximately 5 acres of land to accommodate the expansion of Government facilities at the site; and

WHEREAS, Board of Land and Natural Resources, at its meeting held on _____, 1998, with the concurrence of the State Forester, approved the amendment of General Lease No. S-3852 by the addition of the requested acreage,

NOW, THEREFORE, in consideration of (insert amount per appraisal) Dollars ($0.00), the receipt of which is hereby acknowledged, General Lease No. S- 3852 is hereby amended as follows:

1. Paragraph 2 is amended to include that certain tract of land more particularly described on Exhibit "A", attached hereto and made a part hereof.

Except as hereby amended, all term and conditions of General Lease No. S-3852 shall remain in full force and effect.

EXAMPLE

EXAMPLE

IN WITNESS WHEREOF, the STATE OF HAWAII, by its Board of Land and Natural Resources, has caused the seal of the Department of Land and Natural Resources to be hereunto affixed and the parties hereto have caused this indenture to be executed as of the day, month and year first written above.

STATE OF HAWAII

By: _____
Chairman and Member
Board of Land and
Natural Resources

And By: _____
Member
Board of Land and
Natural Resources

UNITED STATES OF AMERICA

By: _____

Approved as to Form:

_____
Deputy Attorney General
Dated: _____

EXAMPLE

EXAMPLE

Navy Identification No. N6274298RP00___

GRANT OF EASEMENT

THIS INDENTURE, made and entered into this ____ day of _____, 1998, by and between THE STATE OF HAWAII, by its Board of Land and Natural Resources, hereinafter called the "GRANTOR", and the UNITED STATES OF AMERICA, hereinafter referred to as the "GOVERNMENT", represented by the Commander, Pacific Division, Naval Facilities Engineering Command, Pearl Harbor, Hawaii 96860-7300.

WITNESSETH THAT:

WHEREAS, the Department of the Navy operates the Pacific Missile Range Facility at Barking Sands, Kauai, Hawaii; hereinafter called the "Facility", to support the Department of Defense and other federal projects involved with the launching, tracking and collection of data associated with guided missile, satellite and space vehicle research, development and evaluation and military training programs; and

WHEREAS, these programs involve the storage and transportation of materials for which the establishment of explosive safety quantity distance (hereinafter "ESQD") arcs is necessary to limit the exposure of persons and property to potential risks related to the storage and transportation of these materials; and

WHEREAS, portions of the ESQD arcs generated by the high explosive magazines located at Kamokala Ridge and used by the GOVERNMENT pursuant to that certain lease identified as General Lease No. S-3852 extend beyond the lease boundary,

NOW, THEREFORE, in consideration of the sum of (insert amount per appraisal) Dollars ($), the receipt of which is hereby acknowledged, and of the terms, conditions and covenants contained herein, to be kept, observed and performed, the GRANTOR does hereby grant and convey unto the GOVERNMENT and its assigns, for a period of thirty-one (31) years from August 20, 1998, to August 19, 2029, an easement in, over, under and across the following described lands owned by the GRANTOR for the establishment and maintenance of ESQD areas in connection with the operations of the GOVERNMENT:

> All that land situate at Mana, Waimea (Kona), Kauai, Hawaii, identified as (insert description or lot numbers), containing (insert number) acres, as more fully described in Exhibit "A", attached hereto and made a part hereof by reference.

EXAMPLE

EXAMPLE

The GRANTOR and the GOVERNMENT covenant and agree as follows:

1. Use of the property within the easement area is hereby limited in favor of the GOVERNMENT as follows;

a. Lands within the easement area may be used solely for agricultural purposes, such as the growing of crops and the grazing of cattle; and

b. No building or structure shall be constructed or permitted within the easement area without the prior written consent of the GOVERNMENT, except those buildings and structures currently existing; and

c. The GRANTOR, shall not suffer or permit public access to the easement area.

2. The GOVERNMENT shall have the right to post and maintain permanent warning signs at the edge and within the easement area advising the general public of the existence of the ESQD area and hazards related thereto.

3. The GRANTOR shall not be liable for any loss, liability, claim or demand for property damage, property loss, or personal injury including, but not limited to, death arising out of any act or omission of the GOVERNMENT in connection the GOVERNMENT'S use of the easement area.

4. The GOVERNMENT shall be liable for all claims arising from the death of or personal injury to all persons, or loss of or damage to the property of all persons, resulting from the use of the easement area by the GOVERNMENT to the extent provided under the Federal Torts Claims Act (28 U.S.C. Sections 1346(b), and 2671-2680).

5. This easement shall run with the land.

IN WITNESS WHEREOF, the STATE OF HAWAII, by its Board of Land and Natural Resources, has caused the seal for the Department of Land and natural Resources to be hereunto affixed and the parties hereto have caused this indenture to be executed as of the day, month and year first above written.

STATE OF HAWAII

By: _____
Chairman and Member
Board of Land and
Natural Resources

And By: _____
Member
Board of Land and
Natural Resources

EXAMPLE

EXAMPLE

UNITED STATES OF AMERICA

By: _____

Approved as to Form:

_____
Deputy Attorney General
Dated: _____

EXAMPLE

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Appendix D
Environmental Resource Determination

APPENDIX D
ENVIRONMENTAL RESOURCE DETERMINATION

Consistent with Council on Environmental Quality regulations, the scope of the analysis presented in this environmental impact statement (EIS) was defined by the range of potential environmental impacts that would result from implementation of the No-action Alternative and Proposed Action. Resources that have a potential for impacts were considered in the EIS analysis to provide the decisionmakers with sufficient evidence and analysis for evaluation of the potential effects of the action. Code of Federal Regulations 1502.15 states that "The environmental impact statement shall succinctly describe the environment of the area(s) to be affected or created by the alternatives under consideration. The descriptions shall be no longer than is necessary to understand the effects of the alternatives. Data and analyses in a statement shall be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced. Agencies shall avoid useless bulk in statements and shall concentrate effort and attention on important issues." In addition, Code of Federal Regulations 1500.4 directs Federal agencies to reduce excessive paperwork by discussing only briefly issues other than significant ones.

For this EIS, the environment is discussed in terms of 14 resource areas: air quality, airspace, biological resources, cultural resources, geology and soils, hazardous materials and hazardous waste, health and safety, land use, noise, socioeconomics, transportation, utilities, visual and aesthetic resources, and water resources. In addition, a discussions of environmental justice and the ocean area are provided. Each resource area is discussed at each location addressed in this EIS unless the action(s) proposed at that location would not foreseeably result in an impact. Provided below is the rationale for not addressing all 14 resources at specific locations where activities would occur. The outline follows that presented in Chapter 3, Affected Environment.

D1.1 PACIFIC MISSILE RANGE FACILITY (PMRF)

D1.1.1 PMRF/MAIN BASE

All 14 resource areas were addressed.

D1.1.2 RESTRICTIVE EASEMENT

Of the 14 resources, airspace was not addressed and is discussed below.

D1.1.2.1 Airspace

Activation of the restrictive easement does not require control of the airspace above this land area. Airspace issues associated with PMRF operations are addressed under PMRF/Main Base.

D1.1.3 MAKAHA RIDGE

Of the 14 resources, socioeconomics was not addressed and is discussed below.

D1.1.3.1 Socioeconomics

The socioeconomic issues associated with Makaha Ridge are included within PMRF/Main Base.

D1.1.4 KOKEE

Of the 14 resources, socioeconomics was not addressed and is discussed below.

D1.1.4.1 Socioeconomics

The socioeconomic issues associated with Kokee are included within PMRF/Main Base.

D1.1.5 KAMOKALA MAGAZINES

Of the 14 resources, airspace, noise, socioeconomics, and utilities were not addressed and are discussed below.

D1.1.5.1 Airspace

Use of the Kamokala storage magazine does not require control of the airspace above this land area. Airspace issues associated with PMRF operations are addressed under PMRF/Main Base.

D1.1.5.2 Noise

Other than short-term construction noise associated with the construction of two storage buildings under the Proposed Action, activities at the storage magazines do not generate noise other than an occasional truck used to transport ordnance. There are no sensitive receptors near the site.

D1.1.5.3 Socioeconomics

Socioeconomic issues associated with Kamokala Caves are included within PMRF/Main Base.

D1.1.5.4 Utilities

Other than electricity for lighting the storage facilities, no other utility systems are required.

D1.1.6 PORT ALLEN

Of the 14 resources, airspace, biological resources, cultural resources, geology and soils, and socioeconomics were not addressed and are discussed below.

D1.1.6.1 Airspace

Use of Port Allen does not require control of the airspace above this land area. Airspace issues associated with PMRF operations are addressed under PMRF/Main Base.

D1.1.6.2 Biological Resources

Under both the No-action Alternative and Proposed Action there would be no ground-disturbing activities that could affect biological resources at Port Allen. PMRF operations at Port Allen represent only a small portion of the activities at this port and are similar to any port area.

D1.1.6.3 Cultural Resources

Under both the No-action Alternative and Proposed Action there would be no ground-disturbing activities or building modifications that could affect cultural resources.

D1.1.6.4 Geology and Soils

Under both the No-action Alternative and Proposed Action there would be no ground-disturbing activities or building modifications that could affect geology and soils. Potential issues associated with hazardous materials use is addressed under hazardous materials and hazardous waste.

D1.1.6.5 Socioeconomics

The socioeconomic issues associated with Port Allen are included within PMRF/Main Base.

D1.2 SUPPORT SITES

D1.2.1 NIIHAU

All 14 resources areas were addressed.

D1.2.2 KAULA

Of the 14 resources, air quality, hazardous materials and hazardous waste, noise, socioeconomics, transportation, utilities, and visual and aesthetic resources were not addressed and are discussed below.

D1.2.2.1 Air Quality

Under either the No-action Alternative or Proposed Action, there would be no air emissions generated at Kaula Island other than an occasional aircraft operation. The aircraft operations would not change regional air quality.

D1.2.2.2 Hazardous Materials and Hazardous Waste

Potential soil contamination caused by the use of ordnance on the island is addressed under geology and soils. Because the range is active, no ordnance is removed.

D1.2.2.3 Noise

Potential noise impacts to wildlife are addressed under the biological resources section. Because access to the island is restricted, no noise impacts to civilian or military personnel would occur under either the No-action Alternative or Proposed Action.

D1.2.2.4 Socioeconomics

Access to the island is restricted because of the presence of live ordnance. Additionally, there are no facilities on the island; therefore, there are no socioeconomic issues associated with the use of Kaula.

D1.2.2.5 Transportation

Access to the island is restricted because of the presence of live ordnance. Additionally, there is no transportation on this island; therefore, there are no transportation issues associated with the use of Kaula.

D1.2.2.6 Utilities

There are no utilities on the island.

D1.2.2.7 Visual and Aesthetic Resources

Access to the island is restricted because of the presence of live ordnance; therefore, there are no visual and aesthetic issues associated with the use of Kaula.

D1.2.3 MAUI SPACE SURVEILLANCE SYSTEM, MAUI

A review of the 14 environmental resources against program activities determined there would be no impacts from site activities under either the No-Action Alternative or the Proposed Acton at this location. Operations at this site consist of an existing telemetry tower, communications, and tracking facilities. No building modifications would occur. No air emissions would be generated from site activities unless use of diesel generators would be required for back-up power. The site does not affect the existing airspace structure in the region. Because no ground disturbance or building modifications would occur as a result of PMRF activities, there would be no impact to biological resources, cultural resources, or geology and soils. The use of hazardous materials and generation of hazardous waste at this site would be in accordance with applicable regulations. There are established safety zones around electromagnetic radiation hazards, which eliminate health and safety issues. The site is compatible with existing surrounding land uses, and activities are consistent to the maximum extent practicable with the Hawaii Coastal Zone Management Program. No noise is generated by site activities, and the site is operated by up to 60 persons. This small staff would not affect local transportation levels of service or utilities. There is no socioeconomic impact from site operations, and the site does not block any prominent public vistas. Activities would not generate any waste streams that could impact local water quality (EDAW, Inc., 1997, Nov, p.1 through 3).

D1.2.4 KAENA POINT, OAHU

A review of the 14 environmental resources against program activities determined there would be no impacts from site activities under either the No-Action Alternative or the Proposed Acton at Kaena Point. Operations at this site consist of an existing tracking radar operated by the Air Force, and no building modifications would occur. No air emissions would be generated from site activities unless use of diesel generators would be required for back-up power. The site does not affect the existing airspace structure in the region. Because no ground disturbance or building modifications would occur, there would be no impact to biological resources, cultural resources, or geology and soils. Operation of the radar does require the use of small amounts of hazardous materials for facility maintenance such as paint repair and oil for the radar unit and generates small amounts of hazardous waste. All hazardous materials used and hazardous waste generated would continue to be managed in accordance with Air Force, Federal, and state regulations. There is an established safety zone around the radar unit to prevent electromagnetic radiation hazards exposures, which eliminates health and safety issues. The site is compatible with existing surrounding land uses, and activities are consistent to the maximum extent practicable with the Hawaii Coastal Zone Management Program. No noise is generated by site activities. The site, which employs up to 15 personnel, would not affect local transportation levels of service or utilities. There is no socioeconomic impact from site operations, and the site does not block any prominent public vistas. PMRF activities would not generate any waste streams that could impact local water quality (EDAW, Inc., 1997, Nov, p.4).

D1.2.5 WHEELER NETWORK SEGMENT CONTROL/PMRF COMMUNICATION AND COMPUTER SITES, KAUAI, OAHU, AND MAUI

A review of the 14 environmental resources against program activities determined there would be no impacts from site activities under either the No-Action Alternative or the Proposed Acton at these locations. Operations at these sites consist of an existing communications network, associated receiving and transmitting stations, an electronic warfare site, a radar unit on Oahu/Kauai, and a computer center on Maui; no building modifications would occur at these sites. No air emissions would be generated from activities unless use of diesel generators would be required for back-up power. The sites do not affect the existing airspace structure in the region. Because no ground disturbance or building modifications would occur, there would be no impact to biological resources, cultural resources, or geology and soils. PMRF activities at these locations would continue to use small amounts of hazardous materials and generate hazardous waste associated with facility maintenance to prevent building corrosion. All hazardous materials used and hazardous waste generated would continue to be handled in accordance with Federal and State regulations. The sites do not represent any public health and safety issues. The sites are compatible with existing surrounding land uses and activities are consistent to the maximum extent practicable with the Hawaii Coastal Zone Management Program. No noise is generated by site activities. The sites which are only operated by a few personnel, would not affect local transportation levels of service or utilities. There is no socioeconomic impact from operations, and the sites does not block any prominent public vistas. PMRF activities would not generate any waste streams that could impact local water quality (EDAW, Inc., 1997, Nov, p.4 through 8).

D1.2.6 DOE COMMUNICATION SITES

A review of the 14 environmental resources against program activities determined there would be no impacts from site activities under either the No-Action Alternative or the Proposed Acton at any of the DOE Communication Sites. Operations at these sites consist of existing telemetry towers and communications, and no building modifications would occur. No air emissions would be generated from activities at the sites unless use of diesel generators would be required for back-up power. The sites do not affect the existing airspace structure in the region. Because no ground disturbance or building modifications would occur, there would be no impact to biological resources, cultural resources, or geology and soils. Operation of these sites does require small amounts of hazardous materials for facility maintenance and generates small amounts of hazardous waste. All hazardous materials used and hazardous waste generated would continue to be managed in accordance with applicable regulations. There is no electromagnetic radiation generated at the sites; therefore, there are no public health and safety issues. The sites are compatible with existing surrounding land uses, and activities are consistent to the maximum extent practicable with the Hawaii Coastal Zone Management Program. No noise is generated by activities at the sites. The sites, which are only manned during operations, employ two to four persons. Such a small work force would not affect local transportation levels of service or utilities. There is no socioeconomic impact from operation of the sites, and the sites do not block any prominent public vistas. Activities at the sites would not generate any waste streams that could impact local water quality (EDAW, Inc., 1997, Nov, p.4 through 8).

D1.3 CANDIDATE SITES

D1.3.1 TERN ISLAND

Of the 14 resources, socioeconomics was not addressed and is discussed below.

D1.3.1.1 Socioeconomics

The use of Tern Island and the generation of income by site employees does not affect any local economies. Neither the No-action Alternative nor the Proposed Action would change the socioeconomic condition of Tern Island. Temporary closure of the area around the island for launch operations would not impact fishing, as the area's use is currently restricted.

D1.3.2 JOHNSTON ATOLL

Of the 14 resources, socioeconomics was not addressed and is discussed below.

D1.3.2.1 Socioeconomics

Neither the No-action Alternative nor the Proposed Action would change the socioeconomic condition of Johnston Atoll. Under the No-action Alternative there would be no change in current site operations. Under the Proposed Action a small number of target launch personnel would be on temporary duty during launch operations. Launches

would not impact any commercial fishing areas, as use of the areas is currently restricted to Johnston Atoll personnel.

D1.4 OCEAN AREA

Under the No-action Alternative, no impacts were predicted for air quality, airspace, cultural resources, geology and soils, hazardous materials and hazardous waste, health and safety, land use, noise, socioeconomics, transportation, utilities, visual and aesthetics, water resources, and environmental justice. For a more detailed description, refer to section 4.5.

Under the Proposed Action, no impacts were predicted for air quality, cultural resources, geology and soils, hazardous materials and hazardous waste, land use, noise, socioeconomics, transportation, utilities, visual and aesthetics, water resources, and environmental justice.

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Appendix E
Land Title

APPENDIX E
LAND TITLE

The 103rd Congress enacted Public Law 103-150 on November 23, 1993, apologizing to Native Hawaiians for the U.S. role in the 1893 overthrow of the monarchy. The Joint Resolution is not applicable to the disposition of ceded lands at PMRF or support sites. Specifically, the Resolution neither recognizes nor creates rights to any of the ceded lands in Native Hawaiian or any other group defined by race or ancestry, and contains the following express disclaimer: "Nothing in this Joint Resolution is intended to serve as a settlement of any claims against the government." The Resolution provides no direction to any individual Federal agency as to any specific implementing action. There is no instruction with respect to ceded lands. The Resolution can be seen as an appeal to Federal agencies having dealings with the Native Hawaiian community to be alert to the special sensitivities of that community with respect to the ending of the monarchy.

For the EIS process, such sensitivity is already mandated by the statutes and regulations governing the process, particularly those concerning scoping and subsequent public input. It was precisely the public input during scoping that prompted an examination of the ceded lands issue. An assessment of this issue for the EIS would have occurred whether or not the Resolution had been passed.

Many who offered testimony or wrote letters in response to the scoping notice questioned the military's title to PMRF and support sites. They asserted that persons of Hawaiian descent have claims to the land or may be entitled to have some sort of special control over the disposition of these lands. In response to these concerns, a review of the title to these ceded lands was conducted. The possibility that Hawaiians or native Hawaiians (as those terms are used in existing legislation to denote classes defined by race or ancestry) should have special consideration in decisions concerning ceded lands has been carefully evaluated.

The circumstances by which the lands now known as PMRF came into Federal ownership are described at the end of this appendix. This report shows that valid legal title to these lands was vested in the United States either by condemnation, by conveyance, or by set-aside of ceded public lands of the Territory.

The claims advanced during the scoping process focused on ceded lands, i.e., the lands known as Crown or government lands during the period of the monarchy, which were ceded (granted) to the United States when Hawaii was annexed to the United States in 1898. The claims seek "return" of these lands to the "Hawaiian people," to "native Hawaiians" or to "Hawaiians." It is noted that the terms "native Hawaiian" and "Hawaiian" are defined in a number of state and Federal statutes solely in terms of race or ancestry; that is, as referring to persons descended from inhabitants of the Hawaiian Islands just prior to the discovery of the islands by Captain Cook in 1778. There is no accepted definition of "the Hawaiian people" in state or Federal law, but it is assumed for purposes of the discussion below that the term as used during the scoping process referred

generally to persons who are either "native Hawaiians" or "Hawaiians" as otherwise defined by law.

The basis for the claims advanced during scoping was not explained in detail, so the status of the Crown and government lands under the monarchy was reviewed to determine whether any basis for such claims might exist.

Both the Crown and government lands were set apart from the lands under the exclusive control of the king at the time of the Great Mahele. Under the monarchy, the government lands were dedicated to public purposes. The instrument by which Kamehameha III conveyed the lands that would eventually become known as "government lands" stated, with respect to the lands conveyed, that:

> These lands are to be in the perpetual keeping of the Legislative Council (Nobles and Representatives) or in that of the superintendents of said lands, appointed by them from time to time, and shall be regulated, leased, or sold, in accordance with the will of said Nobles and Representatives, for the good of the Hawaiian Government, and to promote the dignity of the Hawaiian Crown.

The Crown lands were intended for the support of the king in what might be called his official capacity. Any doubt on this point was resolved in 1865, when legislation was enacted making the Crown lands inalienable and forbidding leases for more than 30 years. The preamble to this legislation, after noting the history of the Crown Lands, stated:

> *And whereas,* the history of the lands shows that they were vested in the King for the purpose of maintaining the Royal State and Dignity; and it is therefore disadvantageous to the public interest, that the lands should be alienated, or the said Royal Domain diminished. *And whereas, further,* during the two late reigns, the said Royal Domain has been greatly diminished, and is now charged with mortgages to secure considerable sums of money; now therefore,...

This was followed by the text of the law. Leasing was placed under the control of a body known as the Commissioners of Crown Lands. Bonds were authorized for the purpose of retiring mortgages against the property, and the proceeds of the leases, less a portion to be used for discharging the bonds, were made payable to the king. By this statute, the status of the Crown lands as a public resource for the support of the head of the government, rather than the personal property of the King, was confirmed in the law of the kingdom.

Thus, it clearly appears that during the monarchy, both Crown lands and the government lands were essentially dedicated to governmental purposes. At least during the later years of the monarchy, many citizens of the kingdom were not of Hawaiian descent, but the government lands appear to have been administered for the benefit of the citizenry as a whole rather than solely for those of Hawaiian ancestry. There is no indication that during the monarchy any individual (except the king, his wife, and his successors with respect to Crown lands) or any group or category of persons defined by Hawaiian ancestry alone had any claim to the Crown or government lands. Indeed, even the right of the monarch to dispose of the Crown lands at his will was rejected not only by the courts and the

legislature, but ultimately by Kamehameha V himself when he signed the 1865 legislation making the Crown lands inalienable.

Beyond the historical documents themselves, a review of respected historical works discloses no support for a position that during the existence of the kingdom, Crown or government lands were somehow intended only for the benefit of persons of Hawaiian ancestry, except perhaps for the monarch's claim to the Crown lands[1]. With respect to the personal rights of the monarch, it should be noted that Queen Liliuokalani's claim that she held an interest in the Crown lands as her individual property, and was entitled to compensation from the United States for its loss, was carefully considered and specifically rejected by the U.S. Claims Court in 1910. In that case, entitled *Liliuokalani v. U.S.,* 45 St. Cl. 418 (1910), the Queen argued that she held a vested equitable life estate in the Crown lands. After discussing the history of the establishment of the Crown lands, their treatment under the kingdom, and the 1865 legislation that made Crown lands inalienable, the court stated:

> The [1848] reservations [of Crown lands] were made to the Crown and not the King as an individual. The Crown lands were the resourceful methods of income to sustain, in part at least, the dignity of the office to which they were inseparably attached. When the office ceased to exist they became as other lands of the Sovereignty and passed to the defendants as part and parcel of the public domain.

During both the Republic and the Territorial periods, ceded lands were treated as public property, and under the Territory they were explicitly dedicated to public purposes. With the possible exception of the Hawaiian Homes Commission Act, the governing statutes neither acknowledged nor created property rights in any of these lands based on Hawaiian ancestry.

At statehood, the special status of these lands as dedicated to governmental purposes was confirmed by section 5(f) of the Admission Act, which limited the uses of ceded lands to the following:

- Support of the public schools and other public education institutions
- Betterment of the conditions of native Hawaiians, as defined in the Hawaiian Homes Commission Act, 1920, as amended
- Development of farm and home ownership on as widespread a basis as possible
- Making public improvements

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[1] Perhaps the single most valuable resource on the subject is R.S. Kuykendall, *The Hawaiian Kingdom* (3 vols., 1938), esp. Vol. I, Chapter XV, "The Land Revolution." Other writers with thoughtful if varying viewpoints include L.H. Fuchs, *Hawaii Pono: A Social History* (1961) pp. 14-17 and Gavan Daws, *Shoal of Time: A History of the Hawaiian Islands* (1974), esp. pp. 124-128. More technical works include L. Cannelora, *The Origin of Hawaii Land Titles and of the Rights of Native Tenants* (1974); Jon J. Chinen, *Original Land Titles in Hawaii* (1961); Neil M. Levy, *Native Hawaiian Land Rights,* 63 Cal. L. R. 848 (1975).

- Provision of lands for public use

This statute established no requirement that any specific portion of the ceded lands be used for "native Hawaiians," or that any portion of the ceded lands be so used. It is simply included such use among those permitted. No property rights were established in any individual or group simply by virtue of Hawaiian ancestry.

Taken together, the foregoing facts indicate that no individual has a legal claim, based on any right of property, to any federally-retained ceded lands simply by virtue of Hawaiian ancestry. As against any such claim, the government's chain of title, from a purely legal standpoint, is unimpeachable. Even if such a claim might once have existed, it would appear to be barred by the 12-year statute of limitations in the Federal Quiet Title Act.

No other valid basis was offered during the scoping process for the claim that some or all Hawaiians, racially defined, should have special status in determining the disposition of ceded lands, and no such basis has been independently identified. Of course, persons of Hawaiian ancestry, like all members of the community who are or may be affected by the decisions concerning PMRF, have a variety of rights under Federal law to participate in the process leading up to those decisions.

For all of these reasons, the only legal and legitimate course for the DOD in making decisions concerning ceded lands is to treat these lands just like any other lands owned in fee simple by the government, and to afford to all persons, including Hawaiians and native Hawaiians, who may wish to be involved in those decisions the full range of rights provided by law, without discrimination.

Resolving claims that the ceded lands were wrongfully taken by the United States, and that they should be returned (or compensation provided) to a class defined by race or ancestry, is beyond the scope of this EIS and the discretion committed to this action to the DOD. In the final analysis, such resolution is a political issue for which such redress as may be due must be provided by Congress within the boundary of constitutional law.

DEPARTMENT OF THE NAVY

PACIFIC MISSILE RANGE, BARKING SANDS
(Formerly Known as Mana Airport Military Reservation)

1,925.090	Acres - Fee (Set aside)
201.927	Acres - Lease
1.864	Acres - Easement
2,128.881	Acres - Total

Department of the Navy
Pacific Missile Range
Barking Sands

CEDED LANDS—I

1. LOCATION OF PROPERTY: Pacific Missile Range, Kekaha; Waimea District, Kauai, HI

2. DATE CEDED AND HOW: June 29, 1940, Governor's Executive Order Number 887.

3. RESTRICTIONS ON USE OR DISPOSAL:

a. Set aside "for a site for the Mana Airport Military Reservation."

b. Executive Orders Numbers 945 and 887 contain provisions that "the land herein described is set aside upon the understanding that access to the shore for the purpose of fishing will be denied only on the portion used for bombing and that only while same is actually in progress or about to commence."

4. ACREAGE: 548.57 acres (Original)
548.57 acres (Current)

5. CONTROLLING DOD SERVICE COMPONENT: U.S. Navy Pacific Missile Range Facility, Barking Sands.

6. STATUS OF TITLE: U.S.-owned

7. ENCUMBRANCES:

a. Host-Tenant Real Estate Agreement dated October 1, 1992, for a term of five years, with the Department of the Air Force for use of certain buildings, runways, taxiways, aircraft parking space, and associated lands.

8. NARRATIVE: Prior to 1967 was used as an auxiliary landing field for Army and Air Force purposes. The field was transferred to the Navy on February 2, 1968, for use as a missile range. Since transfer, the facility has been used for missile launching as well as the appurtenant housing and administrative buildings and landing strip.

a. PRESENT USE: Missile launching with supporting facilities.

b. PAST USE: Air Field

c. CODE: 1. "Missile Launching Site and Supporting Facilities"

Department of the Navy
Pacific Missile Range
Barking Sands

CEDED LANDS - II

1. LOCATION OF PROPERTY: Pacific Missile Range, Kekaha; Waimea District, Kauai, HI

2. DATE CEDED AND HOW: June 10, 1941, Governor's Executive Order Number 945.

3. RESTRICTIONS ON USE OR DISPOSAL:

a. Set aside "for additions to Mana Airport Military Reservation."

b. Executive Orders Numbers 945 and 887 contain provisions that "the land herein described is set upon the understanding that access to the shore for the purpose of fishing will be denied only on the portion used for bombing and that only while same is actually in progress or about to commence."

4. ACREAGE: 1,509.00 acres (Original)
1,376.52 acres (Current)

5. CONTROLLING DOD SERVICE COMPONENT: U.S. Navy Pacific Missile Range Facility, Barking Sands.

6. STATUS OF TITLE:

a.	U.S.-owned (Navy)	1,376.52 acres
b.	Conveyed to Hawaii	132.48 acres
	TOTAL	1,509.00 acres

7. ENCUMBRANCES:

a. Subject to three easements for drainage ditches, each 80 feet in width, as shown on a plan attached to, and made a part of, GEO Number 945.

b. Use Agreement dated May 5, 1969 for an unlimited term issued to the Department of Commerce and amended on October 13, 1969, to modify the original use area. The current Use Agreement covers the exclusive use of 31.8 acres and is to be used in connection with the National Bureau of Standards Frequency-time Broadcast Station, WWVH, BARSAN site.

8. NARRATIVE: Governor's Executive Order Number 945 was issued on June 10, 1941 and set aside 1,509 acres for the Mana Airport Military Reservation. 132.48 acres of the set-aside land was conveyed to the State of Hawaii by Quitclaim Deed dated January, 1963.

See discussion of Governor's Executive Order Number 887 for current and past uses and code.

Department of the Navy
Pacific Missile Range
Barking Sands

ACQUIRED LANDS

1. LOCATION OF PROPERTY: Pacific Missile Range, Kekaha; Waimea District, Kauai, HI

2. LANDS ACQUIRED UNDER LEASE: 201.927 acres are under lease from the State of Hawaii, dated August 20, 1964, for purposes of road and pipeline rights-of-way.

3. LANDS ACQUIRED BY TRANSFER: An easement for electric line and water pipeline comprising 1.864 acres was transferred from the Department of the Air Force by letter dated August 26, 1964.

DEPARTMENT OF THE NAVY

PACIFIC MISSILE RANGE REMOTE RADAR FACILITY

245.321	Acres - Lease
245.321	Acres - Total

Department of the Navy
Pacific Missile Range
Remote Radar Facility

ACQUIRED LANDS

1. LOCATION OF PROPERTY: Pacific Missile Range Remote Radar Facility; Makaha Ridge, Kekaha, Kauai, HI

2. LANDS UNDER LEASE: 245.321 acres are used under General Lease Number S-3952, dated December 17, 1965, from the State of Hawaii.

DEPARTMENT OF THE NAVY

KAULA ROCK BOMBING TARGET

108	Acres - Fee (Set aside)
108	Acres - Total

Department of the Navy
Kaula Rock Bombing Target

CEDED LANDS

1. LOCATION OF PROPERTY: Kaula Rock Bombing Target, Kaula Island; approximately 20 miles SW of the Island of Niihau in the Hawaiian Islands.

2. DATE CEDED AND HOW: December 13, 1924, Governor's Executive Order Number 173.

3. RESTRICTIONS ON USE OR DISPOSAL: United States Lighthouse Reservation for Lighthouse Station to be under the management and control of the Department of Commerce.

4. ACREAGE: 108 acres (Original)
108 acres (Current)

5. CONTROLLING DOD SERVICE COMPONENT: Naval Air Station Barbers Point.

6. STATUS OF TITLE: U.S.-owned

7. ENCUMBRANCES: None

8. NARRATIVE: Kaula Island was originally set-aside for use by the Lighthouse Service as a lighthouse station on December 13, 1924. The United States Coast Guard, successor to the Lighthouse Service, granted a revocable permit to the Department of the Navy on September 9, 1952, to use Kaula Rock as an aerial bombing target involving the use of live ammunition. The Department of the Navy reported to the Bureau of the Budget, in their Hawaii Property Review Report dated June 28, 1961, that Kaula Rock was being utilized as a bombing target and it was expected to continue being used as such until after August 21, 1964. The United States Coast Guard transferred Kaula Island to the Department of the Navy by letter dated June 11, 1965, under the terms and conditions of 10 U.S.C. 2571, as amended, and under authorization of the Director of the Budget.

In 1978, the State of Hawaii contemplated the inclusion of Kaula Island into a State Seabird Sanctuary and in a memorandum dated May 30, 1978, to the Chairman, Board of Land and Natural Resources, the Deputy Attorney General for the State took the position that the Island belonged to the State. Also, that since the property was no longer being used for lighthouse purposes by the United States the set aside in Governor's Executive Order Number 173 should be canceled by appropriate documentation.

The Legal Counsel for the Pacific Division Naval Facilities Engineering Command in written "Opinion on Title to the Island of Kaula" dated July 27, 1978, took the position that the Island is owned by the United States and that transfer of jurisdiction, control, accountability and custody of Kaula Island to the Department of Navy from the United States Coast Guard was proper and in conformance with United States law.

a. PRESENT USE: It was reported that approximately 9.5 acres or 8.8% of the Island is being used as an aerial bombing impact area and the remainder as a bird sanctuary. The use of the impact area is under the control of the Commander Third Fleet.

b. PAST USE: From 1924 to 1952, used as a lighthouse station by the Lighthouse Service and its successor the United States Coast Guard. 1952 to 1965 it was used jointly by the United States Coast Guard and the Department of the Navy as a lighthouse station and an aerial bombing target. From 1965 to the present time, the Island has continued to be used as an aerial bombing target.

c. CODE: 1. (Aerial Bombing Target)

DEPARTMENT OF THE AIR FORCE

KOKEE AIR FORCE STATION

9.61	Acres - Lease
0.48	Acres - Lease (Non-exclusive)
10.09	Acres - Total

Department of the Air Force
Kokee Air Force Station
(Transferred to NASA)

ACQUIRED LANDS

1. LOCATION OF PROPERTY: Kokee Air Force Station; 22 miles NW of Lihue, Island of Kauai, HI

2. LANDS USED UNDER LEASE: 9.61 acres are used under no-cost leases from the State of Hawaii for purposes of an Aircraft Control and Warning System. In addition, there are non-exclusive lease interests from the State of Hawaii covering 0.48 acres for water and power lines.

DEPARTMENT OF THE AIR FORCE

KAENA POINT SATELLITE TRACKING STATION

0.01	Acres - Easement
1.91	Acres - License
20.00	Acres - Lease
131.01	Acres - Lease (Non-exclusive)
152.93	Acres - Total

Department of the Air Force
Kaena Point Satellite Tracking Station

ACQUIRED LANDS

1. LOCATION OF PROPERTY: Kaena Point Satellite Tracking Station; Waialua and Waianae Districts, Oahu, HI

2. LANDS USED UNDER LICENSE: 1.91 acres are used under no-cost license for water line right-of-way.

3. LANDS USED UNDER LEASE: 20 acres are leased from the State of Hawaii at no cost. In addition, there are non-exclusive use rights from the State of Hawaii, covering 130.01 acres for road, water line and power line rights-of-way.

4. LANDS ACQUIRED BY RESERVATION: Easement interest in 0.01 acre was reserved by the United States in a Quitclaim Deed dated December 28, 1966.

DEPARTMENT OF THE AIR FORCE

MAUI DEEP SPACE SURVEILLANCE SITE
(formerly ARPA Midcourse Optical Station)

3.58	Acres - Lease
0.19	Acres - License
3.77	Acres - Total

Department of the Air Force
Maui Deep Space Surveillance Site

ACQUIRED LANDS

1. LOCATION OF PROPERTY: 21 miles SE of Wailuka, County of Maui, Island of Maui, HI

2. LANDS USED UNDER LEASE: 3.58 acres are leased from the University of Hawaii as a site for a research observatory.

3. LANDS USED UNDER LICENSE: 0.19 acres of right-of-way for an access road is used under license from the State of Hawaii.

OTHER LOCATIONS PROPERTY LAND TITLE

User/Location	Instrument	Property Owner
PMRF/Kokee, Kauai	Lease through NASA	State of Hawaii
DOE/Mount Kahili Repeater Station, Kauai	Lease	County of Kauai
DOE/Mauna Kapu Communication Site, Oahu	Memorandum of Agreement	Federal Aviation Administration
DOE/Makua Radio/Repeater/Cable Head, Oahu	Memorandum of Agreement	U.S. Air Force
PMRF/Mauna Kapu Electronic Warfare Site, Oahu	Lease	Campbell Estate
DOE/Mount Haleakala, Maui	Memorandum of Agreement	Federal Aviation Administration
Maui High Performance Computing Center, Maui	Lease	Private Landholders
Wheeler Army Airfield, Oahu	N/A	U.S. Army
Mt Kaala Air Force Station, Oahu	N/A	U.S. Air Force
Tern Island	N/A	U.S. Department of Interior
Johnston Atoll	N/A	U.S. Air Force

PMRF MISCELLANEOUS IN-GRANTS (Page 1 of 2)

PROJECT CONTRACT	DNLR NUMBER	INSTRUMENT	PARTY	ACTIVITY	AREA/LOCATION	TERM START	TERM END
63323 NOy(R)		IN-LEASE	STATE C&C HONO	PMRF HAWAREA	SOUTH POINT, HI/CABLES & LINE OF SIGHT		65 YRS
54650 NOy(R)		IN-LEASE	HUTCHINSON SUGAR CO	PMRF HAWAREA	KAMAOA, HAWAII		
54649 NOy(R)		IN-LEASE	HUTCHINSON SUGAR CO.	PMRF HAWAREA	PAKINI IKI, HAWAII		
3217 NF(R)		IN-REVOC PERMIT	STATE DOT	PMRF HAWAREA	PORT ALLEN KAUAI 4,970SF WAREHOUSE SPACE	11/1/69	INDEF
3202 NF(R)		IN-PERMIT	COUNTY OF KAUAI	PMRF HAWAREA	KEKAHA DUMPING GROUNDS KOKOLE PT, KAUAI	5/1/69	INDEF
28896 NF(R)		IN-AGRMT	STATE DLNR	PMRF HAWAREA	BRIDGE WIDENING/ROAD 6000 SF	1/28/77	1/27/27
80RP00037		IN-ESMT GRNT/SURR	STATE	PMRF HAWAREA	ELEC/WATER ESMT ALONG KAUMUALII HWY, KAUAI	5/20/80	INDEF
80RP00007		IN-LEASE	STATE	PMRF HAWAREA	MANA, WAIMEA(KONA) ROAD ESMT B5 & B6	10/29/79	INDEF
79RP00066	9-2-103E	IN-ESMT CORRECTON	CAMBELL ESTATE	PMRF HAWAREA	MAUNA KAPU/UNDGND DUCT LINE ESMT 110 COOR NOY(R)6802		
79RP00030	10-5-132	IN-LEASE	STATE DLNR	PMRF HAWAREA	MANA, WAIMEA, KAUAI DRAINAGE ESMTS	9/8/78	8/19/29
79RP00019	10-5-127	IN-LEASE	STATE	PMRF HAWAREA	WIDEN BRIDGE NO. 96, MANA, WAIMEA, KAUAI	1/28/77	1/27/27
68046 NOy(R)	10-4-001	IN-LEASE	STATE	PMRF HAWAREA	BONHAM AFB, TRACTS 1-4 AMEND 5/31/73	4/26/65	
68020 NOy(R)	9-2-103E	IN-ESMT	CAMPBELL ESTATE	PMRF HAWAREA	MAUHA KAPU ROADWAY	11/5/64	

PMRF MISCELLANEOUS IN-GRANTS (Page 2 of 2)

PROJECT CONTRACT	DNLR NUMBER	INSTRUMENT	PARTY	ACTIVITY	AREA/LOCATION	TERM START	TERM END
86RP016P COAST GUARD		IN-PERMIT	COAST GUARD	PMRF HAWAREA	ACCESS & UTIL TO NAVY KOKOLE PT FAC ON KAUAI	5/20/86	4/30/96
84RP00040	10-5-136	IN-LEASE	ALEXANDER & BALDWIN	PMRF HAWAREA	PORT ALLEN WAREHOUSE/OPEN STORAGE	7/16/91	7/15/93
84RP00036	NOT DLR	IN-LEASE	STATE HARBOR DIV	PMRF HAWAREA	PORT ALLEN PIER SHED 12,079 SF/TORPEDO SHOP	7/1/85	6/30/04
84RP00035	NOT DLR	IN-LEASE	STATE HARBOR DIV	PMRF HAWAREA	PORT ALLEN, OFFICE/WAREHOUSE SPACE/4,108 SF	7/1/91	6/30/93
80RP00063	9-2-115	IN-PERMIT	ARMY	PMRF HAWAREA	UNDERGROUND ELEC SYS MAUNA KAPU COMM STA	8/1/80	7/31/95
78RP00040	9-2-104	IN-LEASE	CAMPBELL ESTATE	PMRF HAWAREA	LOT 340, 0.426 AC. SUPPORT MAUNA KAPU COM	7/1/63	6/30/18
65222 NOy(R)		IN-PERMIT	COAST GUARD	PMRF HAWAREA	MAKAHUENA PT, KAUAI MOBILE RADAR SITE	5/1/57	INDEF
		IN-PERMIT	COAST GUARD	PMRF HAWAREA	KILAUEA PT. LIGHT STA KAUAI/MOBIL RADAR SITE	5/1/57	INDEF
83RP00007		IN-LEASE	ROBINSON HELEN M. (NIIHAU)	PMRF HAWAREA	PAHIAU RIDGE, NIIHAU 2.93 AC/RADAR SITE	6/4/84	6/7/99
KA DACA84-5-68-38 S-3746-7-101		IN-LEASE TO ARMY	STATE DLNR	PACMISRANFAC HAWAREA	INSTALL NAVY MICROWAVE ON MT KAALA/5,333 SF LAND	5/14/68	9/9/99
EC 90RP00011		IN-PERMIT	STATE	PACMISRANFAC	PIER SHED SPACE, PORT ALLEN/2,325 SF	10/1/89	9/9/99
N6274289RP00003		IN-LEASE	ROBINSON HEIEN M. (NIIHAU)	PACMISRANFAC	LANDING AND RECOVERY SITE, NIIHAU, 1,167 ACRES	11/1/88	10/31/99

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Appendix F
Executive Summary for the Final Environmental Impact Statement for the Restrictive Easement, Kauai, Hawaii

APPENDIX F
EXECUTIVE SUMMARY FOR THE FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE RESTRICTIVE EASEMENT, KAUAI, HAWAII

The Final Environmental Impact Statement (EIS) for the Restrictive Easement, Kauai, Hawaii, has been prepared in accordance with Hawaii Revised Statutes (HRS), Chapter 343, that implements Environmental Impact Rules, Title 11, Chapter 200, Hawaii Administrative Rules, Department of Health. (U.S. Army Space and Strategic Defense Command, 1993, Oct, p.S-1 through S-4)

PROJECT DESCRIPTION

The U.S. Government proposes to acquire a restrictive easement of approximately 854 hectares (2,110 acres) on State of Hawaii and Kekaha Sugar Company land adjacent to the U.S. Navy Pacific Missile Range Facility (PMRF), Barking Sands, Kauai. The objective is to provide the protection of all persons, private property, and vehicles during Vandal launches and Strategic Target System launches conducted by the U.S. Government. The restrictive easement would give the U.S. Government the authority to restrict access to the land within the ground hazard area prior to, during, and shortly after a launch. In order to support planned launch activities, the U.S. Government is requesting the restrictive easement for a 9-year period beginning on January 1, 1994.

ALTERNATIVES

Two alternatives to the proposed action have been identified and are discussed in the EIS. They are a revision to the Memorandum of Agreement and no action. The current Memorandum of Agreement with the State of Hawaii, the Kekaha Sugar Company, and the lessee of the state land within the ground hazard area would be renewed for a 9-year period beginning in January 1994. The use of the land, time and duration of use, and clearance procedures within the ground hazard area would be the same as described under the proposed action. Under the no-action alternative the U.S. Government would not acquire a restrictive easement. This alternative assumes that the land within the restrictive easement boundary would remain in the current sugar cane and recreational uses.

Two other alternatives were identified but eliminated from further consideration. They are the Department of Defense acquisition of or trade for the land and a 1-year easement each year for 9 years. Alternatives regarding a launch location other than the PMRF and booster types other than the Polaris A3 have been addressed in the Strategic Target System EIS.

ENVIRONMENTAL CONSEQUENCES AND MITIGATIONS

Geology and Soils

No physical changes to the environment within the restrictive easement are anticipated. Establishment of the restrictive easement would limit new development, thereby maintaining the current physiographic conditions. Launch-related activities within the ground hazard area would not significantly impact geology or soil resources. No short- or long-term impacts would occur from the proposed action. Although no impacts are anticipated, the U.S. Navy would conduct a baseline survey for possible lead contamination around the Vandal launch site and perform periodic monitoring of the site.

Water Resources

No new development that would affect water resources within the restrictive easement is planned. Launch-related activities within the ground hazard area would not impact water resources. No impacts to water resources are anticipated since the implementation of the restrictive easement does not involve this resource directly or indirectly.

Air Quality

Emissions from helicopter and launch-related activities may slightly degrade local air quality, but impacts to air quality would be negligible, temporary, and not significant. Due to the intermittent and small number of sweep-and-search occurrences and launches, no change to the current attainment status in the region would occur. Launch-related impacts have been addressed in the Strategic Target System EIS.

Biological Resources

The only direct mission-related activity that would occur over the easement area with the potential for impacts would be intermittent helicopter flights to ensure clearance prior to launches. The proposed easement area would continue to be used for agricultural and public recreational purposes. Launch-related activities within the ground hazard area would not impact biological resources. Helicopter and launch noise could cause a startle effect on wildlife in the area, but no significant impacts are expected.

Cultural Resources

Land uses within the restrictive easement area and ground hazard area would remain unchanged from current purposes, and no new construction is planned under the proposed action. With the exception of the placement of warning signs throughout the easement area, no ground-disturbing activities or other activities with the potential to adversely affect significant cultural resources sites or burial grounds would take place. To ensure that there are no adverse effects on the traditional and customary rights and practices of native groups, those concerns related to program activities expressed by such groups or individuals would be addressed through consultation with the Department of Land and Natural Resources State Historic Preservation Division, the Office of Hawaiian Affairs, and Hui Malama I Na Kupuna 'O Hawai'i Nei; any required mitigation measures within the easement area and ground hazard area would be determined through that process. As a

result, no significant impacts would occur. Launch-related impacts have been addressed in the Strategic Target System EIS.

Visual Resources

With the exception of signs advising the public of the existence of the ground hazard area, no new development would occur as part of the restrictive easement. Launch-related activities within the ground hazard area would not impact visual resources. The visual character of the area would be maintained, and no significant impacts would occur.

Noise

Noise from helicopters used in pre-launch support activities would intermittently increase the level of noise in the restrictive easement area, but this impact would be temporary and similar to other noise levels experienced in the region of influence. Launch-related activities within the ground hazard area would not result in significant noise impacts.

Hazardous Materials and Waste

There are no known hazardous material/waste sites within the restrictive easement boundary, and no new hazardous materials would be introduced. The ground hazard area within the PMRF will contain hazardous fuels, oxidizers, and other materials associated with the Vandal and Strategic Target System launch activities. The area within the ground hazard area may be impacted by hazardous materials as a result of an unlikely early flight termination. Hazardous wastes resulting from early flight termination would be cleared from the area in accordance with cleanup procedures described in the Strategic Target System Draft and Final EISs. No significant impacts are expected to occur.

Health and Safety

Health and safety measures would be taken to ensure that the land within the ground hazard area would be clear of the public during launches from the Kauai Test Facility and the PMRF. Clearing this area would ensure that no injuries would occur to the public in the unlikely event of an early flight termination. Impacts to health and safety would not be significant.

Infrastructure

The activities associated with the restrictive easement would not affect local utilities. For transportation, road control points would be established at the northern and southern portions of the restrictive easement boundary at Polihale State Park and at the intersection of Kao Road and Lower Saki Mana Road. Kao Road, a county-owned road that provides access from State Highway 50 to Lower Saki Mana Road, would not be closed. Launch-related activities within the ground hazard area would not impact infrastructure. There would be separate control points for the Vandal and Strategic Target System ground hazard areas. No significant impacts are expected to transportation due to the short total closure period of approximately 15 hours per year.

Socioeconomics

The restrictive easement is not expected to place the State of Hawaii in a disadvantageous position in lease negotiations with the Kekaha Sugar Company or other potential sugar cane producers. Lease of land within the restrictive easement for diversified crops other than sugar cane would also have negligible impacts on the agricultural value of the land or the lease rates obtained by the state. The easement is not expected to be a factor in curtailing future resort development or tourism growth on the island. Launch-related activities within the ground hazard area would not impact socioeconomics. No significant impacts are expected.

Recreation

The state park area within the restrictive easement boundary to be cleared during launch activities does not contain any developed campsites or picnicking areas. People within the easement boundary would need to move to the north end of the state park so that the area within the easement boundary would be clear from 20 minutes prior to launch until the Range Safety Officer gives clearance to reenter the area. People traveling to and from the state park would be stopped at the control points at the easement boundary during the time that area would be closed. Overall, the establishment of a restrictive easement is compatible with the use of the area as a state park because it preserves the natural, scenic, historic, and wildlife value and recreational nature of the property. Launch-related activities within the ground hazard area would not impact recreation. No significant impacts would occur.

COMPATIBILITY WITH LAND USE PLANS AND POLICIES AND LISTING OF PERMITS OR APPROVALS

The proposed project is generally compatible with the applicable Hawaii State Plan and various State Functional Plans, State Land Use Laws, the Kauai General Plan, the Waimea-Kekaha Regional Development Plan, the Hawaii Coastal Zone Management Program, and Kauai County Special Management Areas.

The only necessary approval for the proposed action is the acceptance of the Final EIS by the Hawaii Department of Land and Natural Resources and the Board of Land and Natural Resources.

UNRESOLVED ISSUES

There are no unresolved issues related to the proposed action.

Appendix G
Terms and Conditions for Use of Niihau Island Facilities and Helicopter Services (Protocol)

APPENDIX G
TERMS AND CONDITIONS FOR USE OF NIIHAU ISLAND FACILITIES AND HELICOPTER SERVICES (PROTOCOL)

NIIHAU RANCH
P.O. Box 229
Makaweli, Kauai, HI, 96769

11 September 1995

Terms and Conditions for:
Use of Niihau Island Facilities
Helicopter Services

GENERAL:

1. Acceptance of the accompanying quote by the government shall infer agreement with the Terms and Conditions stated herein.

2. All occasions for entry to Niihau Island by government or contractor personnel of the Pacific Missile Range Facility (PMRF) or other government agencies including supporting contract personnel, shall be coordinated with the Niihau Ranch Government Point of Contact (NGPOC), without exception. In the absence of the NGPOC, the Niihau Ranch Manager shall be contacted. Government or contractor personnel entering Niihau Island shall do so with no risk assigned to Niihau Ranch, its owners or representatives. The government shall assume all liability for personnel injury, equipment damage, injury to livestock or property damage resulting from or incurred during any ground operations conducted on Niihau Island.

3. No services shall be requested for Sundays, without exception. There shall be no smoking, consumption of alcohol, or firearms permitted on Niihau Island. Government or contractor personnel shall not remove any object(s) from Niihau Island, and shall be responsible for the proper disposal of any trash/waste generated during any visitation.

4. All government or contractor personnel shall be escorted by a Niihau Ranch representative for the duration of each visitation or exercise. The exception to this is government or contract personnel may conduct maintenance or exercises from the APS 134 Radar Site at Paniau Ridge, Niihau Island, without an escort. All personnel shall be subject to the terms and conditions stated herein, where applicable. This exception is maintained from its origin as a verbal authorization of the Niihau Ranch Manager, Mr. Bruce Robinson.

5. The government shall utilize Niihau Ranch and Niihau Helicopters surface and air transportation services for all personnel/equipment transportation requirements involving Niihau Island facilities or operations of the PMRF conducted on Niihau Island. The exception to this is government or contract personnel and equipment may be transported by PMRF helicopter to the APS 134 Radar Site at Paniau Ridge, Niihau Island for the purpose of performing maintenance on installed radar and supporting equipment. This exception is maintained from its origin as a verbal authorization of the Niihau Ranch Manager, Mr. Bruce Robinson.

UTILIZATION OF NIIHAU SITES:

6. The government and its assigned representatives including supporting contract personnel shall be allowed to enter and or utilize certain areas of Niihau Island, as agreed to on a case basis by the Niihau Ranch Manager via the NGPOC, for purposes of planning for, or conducting operations in support of the PMRF or other government agencies which utilize PMRF for training or as a project support site. In the utilization of such areas, the following, where applicable, shall apply in addition to the General Provisions stated above:

a. The government may furnish government or contracted engineering and technical support personnel where required to install, test or operate technical systems. Where non-technical labor is required to support any site, operation or project, available Niihau Ranch labor shall be utilized.

b. The government shall be responsible for proper compliance with existing County, State or Federal Regulations, Statutes or Laws which may affect operations conducted on Niihau Island in support of the PMRF or other government agencies which utilize PMRF.

c. The site(s) utilized shall not be altered in any way unless approved by the NGPOC or the Niihau Ranch Manager.

d. The program shall take precautions not to introduce foreign pests onto Niihau Island. Specific examples include (but are not limited to) the mongoose or the Brown Tree Snake.

e. The government shall include the NGPOC in planning for projects or operations involving Niihau Island.

f. The government (at its own risk) shall be allowed to place equipment at selected sites subject to coordination with the NGPOC and approval by the Niihau Ranch Manager. Niihau Ranch assumes no liability for government equipment placed at any site. The government should be aware that there is a constant risk to equipment on Niihau due to the harsh environment (salt spray, dust, wind & rain), from animal or insect encroachment, and very rarely from rockslides which occur on the island's cliffsides. There is also the remote risk of vandalism caused by unauthorized trespassers.

HELICOPTER SERVICES:

7. All Helicopter Services supporting this proposal shall be furnished by Niihau Helicopters. All services supporting this proposal shall be furnished by Niihau Helicopters. All services provided shall be billed directly from Niihau Helicopters to the appropriate government agency. All invoices shall include a PMRF edition of the attached form, which shall be authorized by PMRF Code 7020, filled out by the pilot and verified by the government operations conductor or the contractor representative.

8. This proposal is based on passenger/equipment pickup and drop off at PMRF or Burns Field.

9. Flight time shall be recorded by installed Hobbs meter which activates only when the aircraft is airborne. There shall be no minimum flight time requirements on individual missions. Invoiced time shall not include initial flight from operating base to the pickup point and final flight from dropoff point to the helicopter operating base. To account for this, 0.2 hrs flight time will be subtracted from the meter reading for the entire flight.

10. A maximum of six passengers with up to 300 lbs of cargo (subject to cargo compartment size limitations) can be accommodated, with total pax and cargo weight not to exceed 1260 lbs (including pilot). With no cargo, seven passengers can be accommodated subject to cabin size and maximum weight limitations. Niihau Helicopters reserves the option of utilizing available space/seats on any flight on a not to interfere with government operations basis.

11. Refueling of the Niihau Helicopter with Jet-A fuel, where necessary, shall be performed at PMRF by PMRF authorized contractor personnel with costs, at the appropriate prevailing government/contract fuel rate including appropriate surcharges, to be reimbursed through an account established separately with PMRF.

12. Requests for helicopter services shall be made as early as possible, but no later than 24 hours prior to desired takeoff time. Every attempt will be made to accommodate emergency services where notification occurs less than 24 hours prior to flight. Niihau Helicopters routinely provides priority scheduling for government operations or requirements. In order to facilitate effective aircraft utilization, cancellations should be avoided where possible. The government will be invoiced for a nominal amount for the scheduled flight in the event of a cancellation which occurs after the aircraft is airborne from the base of operations. All requests for services shall be made through the NGPOC. In the absence of the NGPOC, requests shall be made directly to Niihau Helicopters business office, 335-3500, or the Niihau Ranch office, 338-9869, in that order of contact.

13. No services shall be requested for Sundays.

14. Niihau Helicopters shall be responsible for maintaining an Aviation Facility Use Permit for PMRF, and Federal Aviation Regulations Part 135 Certification for the aircraft and pilots.

15. Niihau Helicopters shall require occasional use of PMRF airfield facilities and other helipads under the control of PMRF for pilot training as necessary.

16. Niihau Helicopters reserves the right to refuse services to any individual, who in the estimation of the pilot, would jeopardize the overall safety of the flight by virtue of that individuals mental or physical condition. Other grounds for refusal of service include the observed or perceived intent of an individual to violate the accepted terms of entry to the Island of Niihau as set forth herein and by the Niihau Ranch Manager.

OTHER CONDITIONS OR MODIFICATION OF EXISTING TERMS:

17. Additional conditions or modifications to terms stated herein may be stipulated in writing upon agreement of both parties.

NO OTHER CONDITIONS FOLLOW.

Addendum

to

Terms and Conditions for Use of Niihau Island Facilities and Helicopter Services

PROTECTION OF HISTORICAL/CULTURAL RESOURCES:

1. In planning for PMRF operations support, the proposed Niihau land areas required for support of any particular operation shall be identified by PMRF representatives to the NGPOC, who will forward and discuss the plan with the property owner and Niihau elders. Historically/culturally sensitive areas shall be avoided whenever possible, or measures shall be employed to prevent or minimize damage to those sites. Where threat of fire exists in any operation, PMRF shall schedule and provide for a Niihau Ranch fire suppression team to be on standby on Niihau during operations. PMRF shall provide adequate fire suppression equipment for use by the team.

2. Prior to any activity which will require known disturbance of the ground (i.e., construction) the site shall be surveyed by a professional archaeologist, if not previously surveyed. Prior to start of ground disturbance activity, construction crews shall be briefed on the sensitivity of cultural resources and the procedures to be followed if sensitive items are uncovered during work at the site. During site preparation and construction, the site shall be monitored by a representative of the Niihau Ranch. A qualified archaeologist, agreeable to the landowner, would assist the island elders in monitoring the siting areas during construction and all ground disturbing activities. If sensitive items are uncovered during surveys or construction, as confirmed by the landowner and Niihau elders, with assistance of the qualified archaeologist (including artifacts or human remains), work shall stop, the area protected and followup action initiated. The property owner and elders from the Niihau community will employ action consistent with local custom. Work may recommence upon the advice of the property owner. Survey reports will be reviewed by representatives of the Niihau Ranch. Private or commercial publishing of any information pertaining to Niihau is prohibited without permission of the landowner.

3. Should there be unexpected property damage resulting from any PMRF operations, the property owner and elders from the Niihau community will be consulted on appropriate measures to protect, stabilize, or restore the property. The Navy will pay for cost of stabilization/restoration if desired by the landowner.

4. PMRF shall be responsible for funding and scheduling all required surveys in consultation with the NGPOC who will obtain all required approvals by the property owner.

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Appendix H
Potential Permits, Licenses, and Entitlements Required

APPENDIX H
POTENTIAL PERMITS, LICENSES, AND ENTITLEMENTS REQUIRED

PMRF/MAIN BASE

Proposed Action Alternative

Airspace. Memorandum of Understanding with the Honolulu Combined Center/Radar Approach Control and the Oakland Air Route Traffic Control Center for the re-routing of aircraft on the V15 airway that passes through Warning Area W-188.

Health and Safety. A waiver of the Department of Transportation prohibition of the transportation of target missile propellant oxidizer, inhibited red fuming nitric acid, by air.

RESTRICTIVE EASEMENT (GROUND HAZARD AREA)

Proposed Action Alternative

Land Use. Revision of existing restrictive easement with the State of Hawaii to expand the types of missiles launched and extend the easement term until 31 December 2030.

KAMOKALA MAGAZINES

Proposed Action Alternative

Land Use. Revise existing lease agreement with the State of Hawaii to add approximately 2 ~~20~~ hectares (5 ~~50~~ acres) of land, and generate a supporting restrictive easement of approximately 50 ~~6~~ hectares (125 ~~1,250~~ acres) for the explosive safety quantity-distance arcs out to 19 August 2029.

NIIHAU

No-action Alternative

Cultural Resources. Section 106 (Advisory Council on Historic Preservation) Consultation and Review with the Hawaii State Historic Preservation Officer.

Proposed Action Alternative

Airspace. A Federal Aviation Administration (FAA) rule-making action for a 5.6 km (3 nmi) radius Restricted Area from the surface to 5,182 m (17,000 ft) over the proposed Aerostat site, plus authorization of a stationary altitude reservation (ALTRV) by the FAA's Central Altitude Reservation Function (CARF).

Cultural Resources. Section 106 (Advisory Council on Historic Preservation) Consultation and Review with the Hawaii State Historic Preservation Officer.

Water Resources. A general National Pollutant Discharge Elimination System permit, under Section 402 of the Clean Water Act for non-point sources from construction activities may be needed.

TERN ISLAND

Proposed Action

Biological Resources. Section 7 (Endangered Species Act) consultation with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS).

Section 10(a) incidental take permit under the Endangered Species Act.

Section 101(a)(5) incidental take permit under the Marine Mammal Protection Act.

JOHNSTON ATOLL

Proposed Action

Biological Resources. Section 7 (Endangered Species Act) consultation with the USFWS and the NMFS.

Section 10(a) incidental take permit under the Endangered Species Act.

Section 101(a)(5) incidental take permit under the Marine Mammal Protection Act.

Cultural Resources. Section 106 (Advisory Council on Historic Preservation) Consultation and Review may be required.

OCEAN AREA

Proposed Action

Airspace. Authorization of a stationary altitude reservation ALTRV by the FAA's CARF.

Appendix I
Cooperating Agencies Acceptance Letters

DEPARTMENT OF THE AIR FORCE
WASHINGTON DC

Office of the Assistant Secretary

14 AUG 1997

SAF/MIQ
1660 Air Force Pentagon
Washington DC 20330-1660

Captain J.A. Bowlin
Commanding Officer
Pacific Missile
Range Facility
P.O. Box 128
Kekaha, HI 96752-0129

Dear Captain Bowlin

Thank you for your letter (Atch 1) requesting the Air Force act as a cooperating agency in the ongoing Environmental Impact Statement (EIS) for the enhancement of Theater Ballistic Missile Defense testing at the Pacific Missile Range Facility (PMRF). We agree the Air Force should be a cooperating agency in this EIS due to the potential impacts at Johnson Atoll and other HQ PACAF concerns.

We also recommend the Army and the Defense Special Weapons Agency be formally invited to act as a cooperating agency and understand from your staff that an invitation is now being worked. The AF has not had operations on Johnson Atoll for several years. Dr. Bob Landis, HQ PACAF/CEVP, DSN 315-448-0473 will serve as the local point of contact for the PMRF EIS. My point of contact is Ms Jean Reynolds, SAF/MIQ, DSN 223-7706. We look forward to working together on this important interservice issue.

Sincerely

THOMAS W.L. MCCALL, JR.
Deputy Assistant Secretary
of the Air Force
(Environment, Safety and
Occupational Health)

Attachment:
PMRF EIS Ltr 18 Jul 97

cc:
SAF/AQR
SAF/MII
ASN/I&E
ASA/ILE-ESOH
BMDO/TOT
AF/ILE
HQ PACAF/CE

Department of Energy
Washington, DC 20585
November 14, 1997

J.A. Bowlin, Captain
U.S. Navy
Commanding Officer
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Hawaii 96752-0128

Dear Captain Bowlin:

Your request of July 18, 1997, for the Department of Energy (DOE) to be a cooperating agency in the preparation of an Environmental Impact Statement (EIS) for the Navy's Theater Ballistic Missile Defense program involving DOE's Kauai Test Facility, has been approved.

I have delegated the authority to review and comment on the EIS for the DOE to Mr. Bruce Twining, Manager, Albuquerque Operations Office. However, should adoption of the Navy's EIS or preparation of a DOE Record of Decision become necessary, the Office of Defense Programs will seek approval/concurrence, as appropriate, from the Assistant Secretary for Environment, Safety and Health. Your staff should coordinate their work with Ms. Susan Lacy, NEPA Compliance Officer, Kirtland Area Office. Ms. Lacy can be reached at (505) 845-5542.

Sincerely,

Peter N. Brush
Acting Assistant Secretary
Environment, Safety and Health

cc:
Manager, Albuquerque Operations Office
Assistant Secretary for Defense Programs

Defense Special Weapons Agency
6801 Telegraph Road
Alexandria, Virginia 22310-3398

PMRF ADMIN
97 OCT 16 PM 2:55

8 October 1997

CAPT J.A. Bowlin
Commanding Officer (7300)
Pacific Missile Range Facility
P.O. Box 128
Kekaha, HI 96752-0128

Dear CAPT Bowlin:

The Defense Special Weapons Agency (DSWA) will participate formally as a cooperating agency in the preparation of the Environmental Impact Statement for testing and training associated with the U.S. Navy's Theater Ballistic Missile Defense program. Our point of contact at Headquarters, DSWA, is Mr. Harry Stumpf, this office, who can be contacted at (703) 325-7174, DSN 221-7174, fax (703) 325-6206, or e-mail at stumpf@hq.dswa.mil.

Sincerely,

John R. Eddy
Director, Office of Logistics
and Engineering

DEPARTMENT OF DEFENSE
BALLISTIC MISSILE DEFENSE ORGANIZATION
7100 DEFENSE PENTAGON
WASHINGTON, DC 20301-7100

August 28, 1997

TOT

MEMORANDUM FOR COMMANDING OFFICER, PACIFIC MISSILE RANGE FACILITY

SUBJECT: Pacific Missile Range Facility Environmental Impact Statement, Cooperating Agency

In response to your Memorandum 5090 Ser 7332/0676 dated July 18, 1997, the Ballistic Missile Defense Organization (BMDO) agrees to participate as a Cooperating Agency in the preparation of an Environmental Impact Statement (EIS) for the Pacific Missile Range Facility (PMRF). We will continue our support of the planning and analysis of the alternatives to upgrade capabilities of the PMRF.

The BMDO will review and comment on the draft documents and provide program planning information that may be useful for upgrade decisions and the EIS effort. My point of contact for this action is Mr. Crate J. Spears, Environmental Coordinator, at (703) 604-3893, DSN 664-3893.

LESTER L. LYLES
Lieutenant General, USAF
Director

cc:
DASN, Environment and Safety (E&S)
CNO N45
PEO/TAD, OASN(RDA) (RADM Rempt)
CINCPACFLT
COMNAVBASE Pearl Harbor

DEPARTMENT OF THE ARMY
U.S. ARMY SPACE AND MISSILE DEFENSE COMMAND
POST OFFICE BOX 1500
HUNTSVILLE, ALABAMA 35807-3801

REPLY TO ATTENTION OF
SMDC-EN-V (200)

0 9 APR 1998

MEMORANDUM FOR Commander, Pacific Missile Range Facility, ATTN: CAPT J.A. Bowlin, P.O. Box 128, Kekaha, HI 96752

SUBJECT: Environmental Impact Statement (EIS) for the Pacific Missile Range Facility (PMRF) Enhancement

1. Thank you for your letter requesting the Army to act as a cooperating agency in the ongoing EIS for the PMRF Enhancement. Since the U.S. Army Space and Missile Defense Command provides the target missile for development and testing of the Ballistic Missile Defense Organization programs executed by the various services, we agree that the U.S. Army should be the cooperating agency in this EIS.

2. Mr. D.R. Gallien, DSN 645-5027, will serve as the point of contact for the PMRF EIS. We look forward to working together on this important interservice issue.

Larry D. McCallister

LARRY D. McCALLISTER
LTC, EN
Acting Deputy Chief of Staff,
Installations, Logistics,
and Environment

CF:
Office of Assistant Secretary of the Army (I,L&E), ATTN: Mr. Phil Huber, Room 3E613, 104 Army Pentagon, Washington, DC 20310-0104

Appendix J
Laws and Regulations Considered

APPENDIX J
LAWS AND REGULATIONS CONSIDERED

Air Quality Regulations

Federal, State, and sometimes local government agencies have promulgated air quality standards. These standards establish concentration limits for specific pollutants. There are generally two sets of standards that are addressed. Primary standards are established to protect public health with an adequate margin of safety. Secondary standards are established to protect public welfare (visibility, personal comfort, harm to property, etc.) from adverse effects of pollutants.

For pollutants not specifically addressed by Federal, State, or local standards, other health-based guidelines were used to establish the potential effects of the pollutants on the public health and welfare. These guidelines, though not binding, establish concentration limits to protect the health and welfare of workers and the general populace.

40 CFR 50-100—Federal ambient air quality standards have been established by the U.S. Environmental Protection Agency (USEPA), and are termed the National Ambient Air Quality Standards (NAAQS). The NAAQS were established to protect public health and welfare. These standards establish maximum concentrations for seven criteria pollutants: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM-10), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns (PM-2.5). The PM-2.5 standard is new. The date this standard will be implemented during the time considered for the proposed action. As such, the analysis must address potential for exceedances of this new standard. Federal and State ambient air quality standards are provided in table J-1.

These concentrations are measured at State-controlled monitoring stations throughout Hawaii. As a generalized rule, monitoring stations are only established in areas with suspected or confirmed air quality problems. Additionally, each station is established to monitor a specific set of pollutants. That is, not all stations monitor all pollutants.

Clean Air Act—is used in USEPA as a tool to aid states in achieving and maintaining the ambient air concentrations of criteria pollutants stipulated by the NAAQS.

It is important to note that all Federal actions are required to not cause or contribute to any new violations of the NAAQS, to not increase the severity or frequency of an existing violation, and to not delay the timely attainment of any air quality standard or milestone. While missiles are not considered stationary sources (and need not adhere to the stationary source emission thresholds), missile launch activities, including missile emissions, must still meet this requirement.

Table J–1: State and Federal Ambient Air Quality Standards

Pollutants	Averaging Time	Hawaii Standards[a]	National Standards	
			Primary	Secondary
Carbon monoxide	8-hour	5 mg/m^3 4.5 ppm	~~10~~ 5 mg/m^3) (9 ppm)	–
	1-hour	10 mg/m^3 (9 ppm)	40 mg/m^3 (35 ppm)	–
Lead	Quarterly	1.5 µg/m^3	1.5 µg/m^3	Same as primary standard
Nitrogen dioxide	Annual	70 µg/m^3 (0.035 ppm)	100 µg/m^3 (0.053 ppm)	Same as primary standard
Hydrogen Sulfide	1-hour	35 µg/m^3	-	-
Ozone	1-hour	100 µg/m^3 (0.05 ppm)	235 µg/m^3 (0.12 ppm)	Same as primary standard
	8-hour	-	157 µg/m^3 (0.08 ppm)	Same as primary standard
Sulfur dioxide	Annual	80 µg/m^3 (0.03 ppm)	80 µg/m^3 (0.03 ppm)	–
	24-hour	365 µg/m^3 (0.14 ppm)	365 mg/m^3 (0.14 ppm)	–
	3-hour	1,300 µg/m^3 (0.5 ppm)	–	1,300 µg/m^3 (0.5 ppm)
PM–10	Annual	50 µg/m^3	50 µg/m$^{3(e)}$	Same as primary standard
	24-hour	150 µg/m^3	150 µg/m^3	Same as primary standard
PM-2.5	Annual	-	15 µg/m^3	
	24-hour	-	65 µg/m^3	

[a]Hawaii standards (other than quarterly and annual) not to be exceeded more than once in any 12-month period.

In addition to the pollutants addressed by the NAAQS, other hazardous air pollutants that present the threat of adverse effects to human health or to the environment are covered by Title III of the Clean Air Act. The list of hazardous air pollutants incorporates, but is not limited to, the pollutants controlled by the National Emissions Standards for Hazardous Air Pollutants (NESHAP) program. Table J-2 lists the guidance levels for major hazardous air pollutants associated with the proposed action.

Ozone Layer Protection (Hawaii Revised Statute [HRS] 19-342C)—defines prohibited acts and penalties regarding use of CFCs. Its purpose is to limit the degradation of the ozone layer.

Hawaii Air Pollution Control Act (HRS 19-342B)—defines related terms, administration duties and powers, permit program details, exemptions, enforcement procedures and penalties, emergency powers, and Small Business Assistance Program participation.

Table J-2: Health-based Exposure Guidance for Potential Rocket Motor-related Hazardous Air Pollutants

Pollutant	Duration of Exposure	Exposure Guidance	Primary Application	Establishing Organization
Aluminum Oxide (as aluminum dust)	8-hour Time-weighted Average (Threshold Limit)	~~10~~ 5 mg/m^3	Workplace	~~American Conference of Governmental Industrial Hygienists~~OSHA and NIOSH
Hydrogen Chloride	1-hour Short-term Emergency Guidance Level (SPEGL)	1.5 mg/m^3	Public	NRC
Inhibited Red Fuming Nitric Acid (IRFNA)	15-minute Short-term Exposure Limit (STEL)	10 mg/m^3	Workplace	OSHA
Unsymmetrical Dimethyl Hydrazine (UDMH)	2-hour Time-weighted Average Ceiling Value	0.15 mg/m^3	Workplace	OSHA

Source: ~~National Research Council, 1987, p.17; American Conference of Government Industrial Hygienists, 1997, p.15~~U.S. Department of Health and Human Services, 1994, p.12.

Ambient Air Quality Standards (Hawaii Administrative Rule [HAR] Chapter 11-59)—is based substantially on Public Health Regulations, Chapter 42, Ambient Air Quality Standards, Department of Health, State of Hawaii. This Rule specifies the Ambient Air Quality Standards for the State of Hawaii.

Air Pollution Control (HAR 11-60)—is the regulation promulgated in accordance with HRS 19-342B. It covers the same information, but does so in a regulatory fashion.

Airspace Use Regulations

Overland Airspace

The Federal Aviation Act (49 United States Code [USC] 1347, et seq.)—gives the FAA sole responsibility for the safe and efficient management of all airspace within the continental United States, a responsibility that must be executed in a manner that meets the needs of all airspace users, both civil and military.

FAA Order 1001.1A, as stated in FAA Order 7400.2D, *Procedures for Handling Airspace Matters*—implements the FAA's policy on airspace as follows:

> "The navigable airspace is a limited national resource, the use of which Congress has charged the FAA to administer in the public interest as necessary to insure the safety of aircraft and the efficient utilization of such airspace. Full consideration shall be given to the requirements of national defense and of commercial and general aviation and to the public right of freedom or transit through airspace." Accordingly, Section 1006 states that "while a sincere effort shall be made to negotiate equitable solutions to conflicts over its use for non-aviation purposes, preservation of the navigable airspace for aviation must receive primary emphasis."

FAA Order 7400.2D and FAA Handbook 7610.4H, *Special Military Operations* —regulate military operations in the NAS. The latter was jointly developed by the Department of Defense (DOD) and the FAA to establish policy, criteria, and specific procedures for air traffic control planning, coordination, and services during defense activities and special military operations.

DOD policy on the management of special use airspace is essentially an extension of FAA policy, with additional provisions for planning, coordinating, managing, and controlling those areas set aside for military use. Airspace policy issues or inter-service problems that must be addressed at the DOD level are handled by the DOD Policy Board on Federal Aviation, a committee composed of senior representatives from each Service. However, airspace actions within the DOD are decentralized, with each Service having its own central office to set policy and oversee airspace matters.

FAA Order 7400.2D stipulates that prior to submission for approval, military proponents of special use airspace must coordinate proposals with locally affected air traffic control facilities and military units, local FAA representatives/liaison offices where assigned, and the ARTCC having jurisdiction over the affected airspace prior to submission of the proposal for approval. In addition, with the exception of controlled firing areas and an optional requirement for temporary Military Operations Areas and temporary restricted areas, special use airspace must be reflected in aeronautical publications and depicted in aeronautical charts. New and revised areas normally become effective on the FAA 56-day cycle publication dates.

The handling of special use airspace matters (for example, the establishment of, modification to, or changes in special use airspace) falls into two categories:

- Non-rulemaking actions include alert areas, controlled firing areas, and Military Operations Areas where the FAA has the authority to make the final decision but does not express that decision by issuing a rule, regulation, or order. Also included in the non-rule category are offshore warning areas where the FAA has an interest, but the final approval is shared by other agencies.

- Rulemaking actions include restricted areas and prohibited areas. These relate to the assignment, review, modification, or revocation of airspace by a rule, regulation, or order.

Rulemaking actions are published in the Federal Register, and review requirements are according to FAA minimum prescribed timelines.

Navy OPNAV Instruction 3770.2H, *Airspace Procedures Manual* (1994)—prescribes the Navy's airspace management procedures and delineates responsibilities for airspace planning and administration.

Air Force Instruction (AFI) 13-201, *Air Force Airspace Management* (1994)—prescribes Air Force airspace management and applies to all active duty, reserve, and Air National Guard units having operational and/or administrative responsibilities for using airspace and navigational aids. This policy applies to each major command functioning as the Air Force

component of a unified command and to specified commands as outlined in unified or specified command directives.

Overwater Airspace

International Civil Aviation Organization (ICAO), Document 444, *Rules of the Air and Air Traffic Services*, 1985 and 1994—outlines the procedures followed over international waters. ICAO Document 444 is the equivalent air traffic control manual to the FAA Handbook 7110.65, Air Traffic Control.

Executive Order 10854—extends the responsibility of the FAA to the overlying airspace of those areas of land or water outside the jurisdictional limit of the Untied States. Under this order, airspace actions must be consistent with the requirements of national defense, must not be in conflict with any international treaties or agreements made by the United States, nor be inconsistent with the successful conduct of the foreign relations of the United States. Accordingly, FAA Order 7400.2D states that actions concerning airspace beyond the jurisdictional limit (22.2 kilometers [12 nautical miles]) require coordination with the DOD and the Department of State, both of whom have preemptive authority over the FAA.

FAA Order 7400.2, *Procedures for Handling Airspace Matters*, Part 7 (1991)—contains the policy, procedures, and criteria for the assignment, review, modification, and revocation of special use airspace overlying water (i.e., Warning Areas). A Warning Area is airspace of defined dimensions over international waters, which contains activity that may be hazardous to non-participating aircraft. Because international agreements do not provide for prohibition of flight in international airspace, no restriction of flight is imposed. The term Warning Area is synonymous with the ICAO term Danger Area.

Executive Order No. 12114, *Environmental Effects Abroad of Major Federal Actions*, 1979—provides for three types of environmental reviews: environmental impact statements; international bilateral or multilateral environmental studies; and concise reviews of the environmental issues involved, including environmental assessments, summary environmental analyses, or other appropriate documents. Major Federal actions significantly affecting the environment of the global commons outside the jurisdiction of any nation (such as the oceans or Antarctica) require the preparation of an environmental impact statement.

Navy OPNAV Instruction 3770.2H, *Airspace Procedures Manual* (1994)—prescribes the Navy's airspace management procedures and delineates responsibilities for airspace planning and administration.

Chapter 6 of OPNAVINST 3770.2H addresses flight operations and firings over the High Seas. (U.S. Department of the Navy, 1994, Section 604, Chapter 6, p.6-5)

Air Force Instruction (AFI) 13-20, *Air Force Airspace Management*, 1994—identifies Air Force airspace management policy for international overwater areas. DOD Directive (DODDIR) 4540.1 stipulates the DOD aircraft, when operating in international airspace, will comply with ICAO procedures.

Biological Resources Regulations

Endangered Species Act (ESA) of 1973, Section 7 as amended (16 USC 1531)—details the requirements for Federal projects. The Endangered Species Act declares that it is the policy of Congress that all Federal departments and agencies shall seek to conserve endangered and threatened species. The act also directs Federal agencies to use their authorities in furtherance of the purposes of the act. Under the Endangered Species Act, the Secretary of the Interior maintains lists of endangered and threatened species. Plants and animals that are candidates for listing are not formally protected under the Endangered Species Act, but are recommended for consideration in all impact statements.

A key provision of the Endangered Species Act for Federal activities is Section 7 consultation. Under Section 7 of the act, every Federal agency must consult with the Secretary of the Interior, the USFWS, and/or the National Marine Fisheries Service (NMFS) to ensure that any agency action (authorization, funding, or execution) is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of the habitat of such species.

National Wildlife Refuge System Improvement Act of 1997 defines clearly a unifying mission for the refuges calls for enhanced consideration of certain wildlife-dependent public uses when compatible, and outlines a specific process by which compatibility determinations should be made. The act comes on the cusp of the 100th anniversary of the Refuge System, just in time to guide its management and public uses into the next century.

Key Provisions of the National Wildlife Refuge System Improvement Act

This act defines the mission of the National Wildlife Refuge System, which is, "to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans."

The act requires the Secretary of the Interior to ensure the biological integrity, diversity, and environmental health of the National Wildlife Refuge System are maintained.

The act defines compatible wildlife-dependent recreation as "legitimate and appropriate general public use of the [National Wildlife Refuge] System."

It establishes hunting, fishing, wildlife observation and photography, and environmental education and interpretation as "priority public uses" where compatible with the mission and purpose of individual national wildlife refuges.

The act retains refuge managers' authority to use sound professional judgment in determining compatible public uses on national wildlife refuges and whether they will be allowed. It established a formal process for determining "compatible use."

The act requires public involvement in decisions to allow new uses of national wildlife refuges and renew existing ones, as well as in the development of "comprehensive

conservation plans" for national wildlife refuges. In addition, refuges that do not already have such plans are required to develop them.

Marine Mammal Protection Act (MMPA) (16 USC 1361, et seq.)—gives the USFWS and NMFS co-authority and outlines prohibitions for the taking of marine mammals. ~~The act also provides for penalties for the use of fishing methods in contravention of any regulations or limitations enacted by governmental agencies to achieve the purposes of the MMPA~~. Subject to certain exceptions, the act establishes a moratorium on the taking and importation of marine mammals. Exceptions to the taking prohibition that may come into play include section 101(a)(5), which allows NMFS and USFWS to authorize the incidental taking of small members of marine mammals in certain instances, or section 104(c)(3), which governs the taking of marine mammals for purposes of scientific research. The Marine Mammal Commission, which was established under the act, reviews laws and international conventions, studies world-wide populations, and makes recommendations of Federal officials concerning marine mammals.

Fish and Wildlife Coordination Act (16 USC 2901, et seq.)—encourages all Federal departments and agencies to utilize their statutory and administrative authority, to the maximum extent practicable and consistent with each agency's statutory responsibilities, to conserve and promote conservation of nongame fish and wildlife and their habitats. Further, the act encourages each state to develop a conservation plan.

Migratory Bird Treaty Act (16 USC 703-712)—protects many species of migratory birds. Specifically, the act prohibits the pursuit, hunting, taking, capture, possession, or killing of such species or their nests and eggs.

Marine Protection, Research, and Sanctuaries Act (16 USC 1431 et. seq.)—regulates the ocean dumping of waste, provides for research on ocean dumping, and provides designation and regulation of marine sanctuaries.

Sikes Act (PL 86-797)—requires each military installation to manage natural resources so as to provide for multipurpose uses and to provide public access appropriate for those uses, unless access is inconsistent with the military mission. The act also requires each military department to ensure professional services are provided which are necessary for management of fish and wildlife resources on each installation.

Conservation of Aquatic Life, Wildlife, and Land Plants Act (HRS 12-195D)—serves as the Hawaii Endangered Species Act. It controls the activities relating to or affecting endangered species and also establishes conservation programs. The Conservation Act incorporates the listing of endangered or threatened species under the federal Endangered Species Act into its own listing (Goodsill Anderson Quinn and Stifel, 1993, p.214).

Wildlife (HRS 12-183D)—is the primary Hawaiian legislation enforcing all laws relating to the protecting, taking, hunting, killing, propagating, or increasing the wildlife within the State and the waters subject to its jurisdiction.

Aquatic Resources (HRS 12-187A)—is the primary Hawaiian legislation enforcing all laws relating to the protecting, taking, killing, propagating, or increasing of aquatic life within the State and the waters subject to its jurisdiction. The Aquatic Resources Law also

establishes, manages, and regulates public fishing areas, artificial reefs, marine life conservation districts, shoreline fishery management areas, refuges, and other areas.

Natural Area Reserves System (HRS 12-195)—establishes a statewide natural area reserves system to preserve in perpetuity specific land and water areas which support communities of flora and fauna and geological sites of Hawaii.

Marine Life Conservation Program (HRS 12-190)—establishes that all marine waters of the State constitute a marine life conservation area. The Marine Life Conservation Program states that no person shall fish for or take any fish, crustacean, mollusk, live coral, algae or other marine life, or take or alter any rock, coral, sand, or other geological feature within any established conservation area.

Executive Order No. 13089, *Coral Reef Protection* (1998)—All Federal agencies whose actions may affect U.S. coral reef ecosystems shall: (a) identify their actions that may affect U.S. coral reef ecosystems; (b) utilize their programs and authorities to protect and enhance the conditions of such ecosystems; and (c) to the extent permitted by law, ensure that any actions they authorize, fund, or carry out will not degrade the conditions of such ecosystems.

Executive Order 1019, *Hawaiian Islands Reservation* (1909) – The islets and reefs of the extreme western extension of the Hawaiian archipelago are reserved and set apart for the use as a preserve and breeding ground for native birds. It is unlawful to hunt, trap, capture, willfully disturb, or kill any bird of any kind whatever, or take the eggs of such birds within the limits of the reservation except under the rule and regulations prescribed by the Secretary of Agriculture.

Cultural Resources Regulations

Federal law [16 U.S.C. 470w (5)]—defines Historic Properties as "any prehistoric or historic district, site, building ,structure, or object included in or eligible for inclusion in, the National Register of Historic Places."

The current U.S. Navy's *Historic and Archaeological Resource Protection Planning Guidelines* define historic and archaeological resources as pieces of real or personal property whose management, protection, and consideration in planning is mandated by Federal Laws, international agreements, executive orders, regulations due to their significance in the history of the United States, its communities and diverse cultural groups, and other nations.

Archaeological Resources include parcels of real property (sites) as well as items of personal property (artifacts) on Federal land or lands subject of effect by the Navy or Marine Corps.

Historic Properties are defined as real property such as sites, buildings, structures, works of engineering, industrial facilities, fortifications and landscapes, that are eligible for the National register of Historic Places or of a host country's equivalent of the National Register. Personal property such as ships (or other watercraft), aircraft, and spacecraft may also be considered historic property.

Native American Cultural Items and Places (Traditional Cultural Resources) include human remains, associated funerary objects, sacred objects, and objects of cultural patrimony. Native American cultural items must be managed in accordance with Federal Law. Consideration must also be given to places of importance to the continuing practice of a Native American group's traditional religion. Such places and the impacts on them, and impacts on access to them must be managed in accordance with Federal Law (U.S. Department of the Navy, 1997, Jan p.5, p.6).

American Indian Religious Freedom Act of 1978 (PL 95-341; 92 STAT. 469; 42 USC 1996)—states that it is the policy of the United States to protect and preserve for Native Americans their inherent right of freedom to believe, express, and exercise the traditional religions of Native Americans, including access to sites, use and possession of sacred objects, and the freedom to worship through ceremonial and traditional rites.

Archaeological Resources Protection Act of 1979 (PL 96-95; 93 STAT. 722; 16 USC 470aa-47011)—provides guidelines for dealing with archaeological resources on public and Native American land. It details the permit procedures necessary for excavation and outlines the criminal and civil penalties for the illegal removal of archaeological materials from Federal land.

Historic Sites Act of 1935 (PL 74-292; 49 STAT. 666; 16 USC 461-467)—declares that it be a "national policy to preserve for public use historic sites, buildings, and objects of national significance for the inspiration and benefit of the people of the United States." It establishes the National Park Service (through the Secretary of the Interior) as the caretaker of the Nation's cultural resources and empowers them to execute the act's policies, including criminal sanctions. It also establishes a general advisory board, known as the "Advisory Board on National Parks, Historic Sites, Buildings, and Monuments," to advise on any matter relating to national parks, historic and archaeological sites, buildings, and properties.

National Historic Preservation Act (NHPA) of 1966, as amended (PL 89-665; 80 STAT. 915; 16 USC 470; 36 CFR 800)—establishes a program for the preservation of historic properties throughout the nation. The act authorizes the Secretary of the Interior to "expand and maintain a national register of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, and culture, hereinafter referred to as the National Register..." This Act also establishes an independent Agency of the U.S. Government, The Advisory Council on Historic Preservation, to "advise the President and the Congress on matters relating to historic preservation" and to implement and monitor the Historic Preservation Act. The most commonly cited sections of this Act are Section 106 and Section 110.

Section 106 of the NHPA—is implemented and directed under the authority of the Advisory Council on Historic Preservations regulations, **"Protection of Historic Properties" (36 CFR Part 800).** It requires that the head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking take into account the effect of that undertaking on any historic

properties, prior to the approval of the expenditure of any Federal funds and prior to the issuance of any license or permits.

Section 106 also requires that Federal agencies afford the Advisory Council on Historic Preservation an opportunity to comment on any undertaking which has the potential to effect these resources.

The Section 106 review/compliance process is comprised of five phases:

The identification and evaluation of historic properties within the area where an agency proposes to undertake an activity.

An assessment of the effects on cultural resources as a result of the proposed undertaking. A determination of effect is made by the Agency based on criteria established in the ACHP's regulations. These determinations can be: No effect (the undertaking will not affect historic properties; No Adverse effect (the undertaking will affect one or more historic properties, but the effect will not be harmful), and/or; Adverse effect (the undertaking will harm one or more historic properties).

Consultation with the State Historic Preservation Officer (SHPO) for the purpose of resolving issues regarding adverse effects that might be incurred on historic properties. The SHPO coordinates a States participation in the implementation of the NHPA and consults with and assists the Agency Official when identifying and assessing effects on historic properties, and considering alternatives to mitigate those effects. The SHPO represents the interests of the State and its citizens in the preservation of their cultural heritage. The SHPO also assists the Agency Official in identifying persons interested in an undertaking and its effects upon historic properties. Consultation is designed to result in a Memorandum of Agreement (MOA) whereby the Agency outlines measures agreed upon that will reduce, avoid, or mitigate adverse effects. In certain cases the consulting parties may agree that no such measures are available and that adverse effects must be accepted in the public interest. If consultation proves unproductive, the agency, the SHPO, or the Council, may terminate consultation. The Agency must submit appropriate documentation to the Council and request the Council's written comments.

Advisory Council comments on the proposed undertaking. The Council may comment during the Agency/SHPO consultation and participate by signing the resulting MOA. The Agency may also obtain Council comment by submitting the MOA to the Council for review and acceptance. The Council can accept the MOA, request changes, or opt to issue written comments. Should Consultation be terminated, the Council issues its written comments directly to the Agency head, as requested by the Agency

Finalization of the Section 106 Compliance/Review process. If the MOA is executed, the Agency proceeds with the its undertaking under the terms of the MOA. In the absence of an MOA, the Agency head must take in account the Councils written comments in deciding whether and how to proceed"

Section 106 regulations also provide alternative means of compliance with Section 106. These are through: Programmatic Agreements among the Agency, the Council, one or more SHPO's and/or others; Counterpart regulations developed by an Agency and

approved by the Council, and/or; an Agreement between the Council and a State, which substitutes a State review system for the standard Section 106 review process.

Section 110 of the NHPA—directs Federal agencies to assume responsibility for the preservation of historic properties which are owned or controlled by the Agency; and, consistent with the Agency's mission and mandates, carry out Agency programs and projects in accordance with the purposes of the NHPA, and give consideration to programs and projects which will further the purposes of the NHPA. Section 110 of the NHPA prescribes general and specific responsibilities of Federal agencies in the identification, evaluation, registration, and protection of properties of historic, archaeological, architectural, engineering, or cultural significance. Section 110 requires that Federal agencies designate historic preservation officers, identify and preserve historic properties under their ownership, and minimize harm to National Natural Landmarks.

In accordance with Section 110 of the NHPA, the Navy is responsible for the stewardship of historic properties under its jurisdiction and for preservation of such properties to the extent feasible, although no absolute requirement to preserve these properties exists. A Section 106 review may result in conclusion that alteration or destruction of an historic property is in the general public interest (Naval Air Facility Adak, 199c, Oct, p.i).

Native American Graves Protection and Repatriation Act (1990) (PL 101-601; 25 USC 3001 et seq.)—has two main objectives. The first objective is to require any person who wishes to excavate Native American remains and grave goods on Federal land to obtain a permit and to give the Native American group most closely associated with those goods the opportunity to reclaim them. The act also addresses the incidental discovery of such items on Federal land by persons engaged in other activities, such as mining or construction. When one or more of these items are found in this manner, the activity must cease and a reasonable effort made to protect the items. Written notification must be made to the Federal land manager in charge and the appropriate tribe or organization, who is allowed 30 days in which to make a determination as to the appropriate disposition for these remains. The second objective requires that collections of Native American human remains and grave goods that are currently controlled by Federal agencies and museums inventory such items, attempt to identify them as to geographical and cultural affiliation, notify the appropriate Native American organization, and return the items, if the tribe or organization so desires.

As a department of the Federal government, the Navy has certain statutory and regulatory obligations under the NHPA and its implementing regulations and guidelines (36 CFR 60 and 800) as well as other archaeological laws. Within the DOD, policies for the management of archaeological and historic resources are established by DODDIR 4710.1 (Archaeological and Historic Resources Management). For the Navy, these policies are implemented by instructions in Chapter 23 of OPNAVINST 5090.1B Historic and Archaeological Resources Protection, Environmental and Natural Resources Program Manual, (November 1994); Naval Facility Instruction (NAVFACINST) 11010.70A (1990), *Guidance for Preparing Historic and Archaeological Resources Protection Plans at United States Navy Installations* (Greenhorne & O'Mara, Inc., June 1990). Since the inception of this EIS, the latter document referenced above has been superseded by *Historic and*

Archaeological Resources Protection Planning Guidelines (U.S. Department of the Navy, 1997 Jan).

Department of Defense (DOD) Instruction 4715.3 (May 3, 1996)—provides standards for "Integrated Cultural Resource Management Plans (ICRMPs). As Navy and Marine Corps installations and activities begin to develop ICRMPs, it will become necessary to coordinate such development with pre-existing Historic and Archaeological Resources Protection (HARP) plans, and with most recent guidelines provided by the Navy. It is anticipated that ICRMPs will eventually subsume and replace HARP plans. (U.S. Department of the Navy, 1997 Jan p.4-5).

In compliance with NHPA and the ACHP's regulations (36 CFR 800) implementing the Section 106 review and comment process, PMRF would consult with SHPO Hawaii and the ACHP to establish and/or implement measures ensuring proper mitigation of potential adverse effects to cultural resources that could result form either current or proposed activities at PMRF.

Because activities described in this EIS have the potential to affect land owned or regulated by the State of Hawaii, State and County laws and guidelines are also applicable and include HRS chapters 343, 344, and 6E (amended); Hawaii Act 306 (State Burials Law); the Hawaii State Functional Plan for Historic Preservation; and Chapter 8 of the Kauai County Code.

Executive Order 11593, *Protection and Enhancement of the Cultural Environment* (1971)—The Federal Government shall provide leadership in preserving, restoring and maintaining the historic and cultural environment of the Nation. Federal agencies shall:

(1) administer the cultural properties under their control in a spirit of stewardship and trusteeship for future generations,

(2) initiate measures necessary to direct their policies, plans and programs in such a way that federally owned sites, structures, and objects of historical, architectural or archaeological significance are preserved, restored and maintained for the inspiration and benefit of the people, and

(3) in consultation with the Advisory Council on Historic Preservation (16 U.S.C. 470i), institute procedures to assure that Federal plans and programs contribute to the preservation and enhancement of non-federally owned sites, structures and objects of historical, architectural or archaeological significance.

Environmental Justice Regulations

Executive Order 12898, *Environmental Justice* (1994) – Each Federal agency shall conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons (including populations) from participation in, denying persons (including populations) the benefits of, or subjecting persons (including populations) to discrimination under, such programs, policies, and activities, because of their race, color, or national origin.

Geology and Soils Regulations

The pertinent regulations related to geology and soils for PMRF activities are as follows:

Article XI, Section 3, of the Hawaii Constitution states that "the state shall conserve and protect agricultural lands, promote diversified agriculture, increase agriculture self sufficiency, and assure the availability of agriculturally suitable lands. Lands identified by the state as important agricultural lands needed to fulfill the purposes above shall not be reclassified ..."

Hazardous Materials and Hazardous Waste Regulations

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (Public Law [PL] 96-510, 42 USC 9601, et seq.)—authorizes the United States Environmental Protection Agency (USEPA) to enforce remediation of past contamination. The law authorized Federal agencies to respond to the release or imminent release of hazardous substances into the environment through emergency response procedures coordinated with State governments. PCBs are designated a hazardous substance by CERCLA (not RCRA) due to the Clean Water Act (CWA). Therefore, any person identified as a responsible party in a release or threatened release of PCBs is liable for any and all costs incurred for the cleanup. Under Title III of SARA, the reportable quantity is one pound.

Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 (PL 99-499, 42 USC 11001, et seq.) as part of the Superfund Amendments and Reauthorization Act (SARA) of 1986 Title III (PL 99-499, 42 USC 9611, et seq.) which is part of CERCLA—establishes the emergency planning efforts at State and local levels and provides the public with potential chemical hazards information.

Executive Order 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements—directs Federal agencies to comply with EPCRA. Also establishes a goal to reduce the release and off-site transfer of toxic chemicals by 50 percent over a 5-year period, using 1994 as the baseline.

Federal Insecticide, Fungicide, and Rodenticide Act of 1972 (PL 92-516, 7 USC 136, et seq.)—regulates the labeling requirement and disposal practices of pesticide usage.

Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (PL 92-500, 33 USC 1251, et seq.)—has special enforcement provisions for oil and hazardous substances. For example, Spill Prevention Control and Countermeasures Plans (SPCCs) cover the release of hazardous substances as identified by the USEPA, which could reasonably be expected to discharge into navigable waters.

Hawaii Hazardous Waste Management Act, (HRS Title 19, Health, Chapter 342J)—The Hawaii state hazardous waste management program is a preventive as well as a regulatory program that gives priority to providing technical assistance to generators of hazardous waste to ensure the safe and proper handling. The hazardous waste management program includes public education to promote awareness of what constitutes hazardous waste and the dangers of improper disposal of hazardous waste. The hazardous waste

management program promotes hazardous waste minimization, reduction, recycling, exchange, and treatment as the preferred methods of managing hazardous waste, with disposal used only as a last resort when all other hazardous waste management methods are ineffective or unavailable. The State program is coordinated with each county, taking into consideration the unique differences and needs of each county.

Hawaii Solid Waste Management Control Regulations (Hawaii Code of Rules and Regulations, Title 11, Department of Health, Chapter 58)—The purpose of this chapter is to establish minimum standards governing the design, construction, installation, operation, and maintenance of solid waste disposal, recycling, reclamation, and transfer systems. Such standards are intended to:

(1) Prevent pollution of the drinking water supply or waters of the State
(2) Prevent air pollution
(3) Prevent the spread of disease and the creation of nuisances
(4) Protect the public health and safety
(5) Conserve natural resources
(6) Preserve and enhance the beauty and quality of the environment

Hazardous Materials Transportation Act (HMTA) of 1975 (PL 93-633, 49 USC 1801, et seq.)—gives the DOT authority to regulate shipments of hazardous substances by air, sea, highway, or rail. These regulations, found at 49 CFR 171–180, may govern any safety aspect of transporting hazardous materials, including packing, repacking, handling, labeling, marking, placarding, and routing (other than with respect to pipelines).

Medical Waste Tracking Act (PL 100-582, 42 USC 6912, 6992, et seq.) under RCRA—establishes the Standards for Tracking and Managing Medical Waste. This act is strictly a demonstration program to track the disposition and transportation of medical wastes.

Hawaii Management and Disposal of Medical Waste (Hawaii Code of Rules and Regulations, Title 11, Department of Health, Chapter 104)—implements Hawaii Revised Statutes Section 321-21 and provides for the management, treatment, transport, storage, and disposal of medical and infectious wastes and treated infectious wastes to ensure practices which will protect the health and safety of persons living in Hawaii.

Military Munitions Rule (62 FR 6621, 40 CFR 260, et seq.)—identifies when conventional and chemical military munitions become a hazardous waste under RCRA, and provides safe storage and transport of such waste. It amends existing regulations regarding emergency responses involving both military and non-military munitions and hazardous waste and explosives. The rule also exempts hazardous waste generators and transporters from needing RCRA manifests when traveling through or close to adjacent properties under the control of the same person. This revision, effective 12 August 1997, is expected to reduce the paperwork burden on hazardous waste generators whose property is divided by right-of-ways.

Nuclear Regulatory Commission (NRC) (PL 93-438, 42 USC 5801, et seq.)—regulates Radioactive Wastes, including depleted uranium; enforcement of this statute is conducted under 10 CFR 19, 20, 21, 30, and 40, NRC Standards for Protection Against Radiation. These health and safety standards were established as protection against ionizing radiation

resulting from activities conducted under the licenses issued by the NRC. The handling, storage, establishing radiation protection programs, recordkeeping, transport, and disposal of Radioactive Wastes are subject to NRC standards.

Pollution Prevention Act of 1990 (PL 101-508, 42 USC 13101, et seq.)—requires the USEPA to develop standards for measuring waste reduction, serve as an information clearinghouse, and provide matching grants to State agencies to promote pollution prevention. Facilities with more than 10 employees that manufacture, import, process, or otherwise use any chemical listed in and meeting threshold requirements of EPCRA must file a toxic chemical source reduction and recycling report.

Resource Conservation and Recovery Act (RCRA) of 1976, as amended 1984 (PL 94-580, PL 98-616 [1984], and 42 USC 6901, et seq.)—authorizes the USEPA to regulate the generation, storage, and disposal of hazardous wastes. The RCRA also manages underground storage tanks.

Toxic Substances Control Act (TSCA) of 1976 (PL 94-469, 15 USC 2601, et seq.)—establishes that the USEPA has the authority to require the testing of new and existing chemical substances entering the environment, and, subsequently, has the authority to regulate these substances. Many of the materials contained in the missiles and drones which PMRF tests in the overwater areas contain substances that are considered toxic under the TSCA. However, TSCA regulations may be waived for national security reasons under Section 22 of this act. The TSCA also regulates polychlorinated biphenyls (PCBs), whose manufacture was banned in 1978. Title III of TSCA addresses indoor radon abatement. TSCA and the Asbestos Hazard Emergency Act (AHERA) provide the regulatory basis for handling and removing asbestos containing materials in kindergarten through 12th grade school buildings.

Health and Safety Regulations

The regulatory environment for health and safety issues consists of those regional and local elements that have been established to minimize or eliminate potential risk to the general public and on-site personnel as a result of operations. Because of ongoing operations at PMRF considerable health and safety related requirements are already in place.

29 CFR 1910 and 1926—Regulatory requirements related to the Occupational Safety and Health Act of 1970 have been codified in 29 CFR 1910, General Industry Standards, and 29 CFR 1926, Construction Industry Standards. The regulations contained in these sections specify equipment, performance, and administrative requirements necessary for compliance with Federal occupational safety and health standards, and apply to all occupational (workplace) situations in the United States. Requirements specified in these regulations are monitored and enforced by OSHA, which is a part of the U.S. Department of Labor.

With respect to ongoing work activities at the proposed PMRF operating locations, the primary driver is the requirements found in 29 CFR 1910. These regulations address such items as electrical/mechanical safety and work procedures, sanitation requirements, life safety requirements (fire/evacuation safety, emergency preparedness, etc.), design

requirements for certain types of facility equipment (e.g., ladders/stairs, lifting devices), mandated training programs (employee Hazard Communication training, use of powered industrial equipment, etc.), and recordkeeping and program documentation requirements. For any construction or construction-related activities, additional requirements specified in 29 CFR 1926 also apply.

EM 385-1-1, U.S. Army Corps of Engineers Safety and Health Requirements Manual—All work activities undertaken or managed by the U.S. Army Corps of Engineers (USACE), which can include many types of Federal construction projects, must comply with the requirements of EM 385-1-1. In many respects the requirements in this Manual reflect those in 29 CFR 1910 and 1926, but also include USACE-specific reporting and documentation requirements.

Range Commanders Council Standard 321-97, Common Risk Criteria for National Test Ranges—sets requirements for minimally-acceptable risk criteria to occupational and non-occupational personnel, test facilities, and non-military assets during range operations. Methodologies for determining risk are also set forth. Requirements specified in this standard are followed for all operations at PMRF test ranges. Under RCC 321-97, individuals of the general public shall not be exposed to a probability of fatality greater than 1 in 10 million for any single mission and 1 in 1 million on an annual basis. This standard maximum risks to the general public is less on an annual basis than the risks from accidents occurring in the home or in public. (Range Commander Council, 1997, February, p.3-7)

Range Commanders Council Standard 319-92, Flight Termination System Commonality Standards—specifies performance requirements for flight termination systems used on various flying weapons systems. Requirements specified in this standard are followed for all operations at PMRF test ranges.

Department of Transportation (DOT) regulations 49 CFR 100-109—address the interstate shipment of hazardous substances. This document also specifies the proper shipping name, hazard class, and identification number to be used for each material shipped. This information is necessary to ensure proper handling by shipping personnel and identification by emergency personnel if an accident involving hazardous materials should occur. In addition, this document sets guidelines specifying containers suitable for the quantity and chemical characteristics of the hazardous materials that are used. The State of Hawaii incorporates the DOT regulations under Hawaii Revised Statute Section 286 Part XI (Motor Carrier Safety Law), and Section 286 Part XII (Transportation of Hazardous Materials, Hazardous Waste and Etiologic Agents). Public sea shipments in the region of Hawaii must be in accordance with Hawaii Revised Statute Harbor & Tariffs Title 19, Subtitle 3, para. 42-133, Loading & Unloading Hazardous Materials. (U.S. Army Strategic Defense Command, 1992, Feb, p.3-47)

Land Use Regulations

Hawaii Land Use Law, HRS Chapter 205 and Title 15, Subtitle 3, Chapter 15, Hawaii Administrative Rules—classifies State land into four categories: urban, rural, agricultural, and conservation. Urban districts include activities or uses as provided by ordinances or regulations of the county within which the urban district is situated. Rural districts include

activities or uses as characterized by low density residential lots of not more than one dwelling house per one-half acre, except as provided by county ordinance. The agricultural district includes lands for the cultivation of crops, aquaculture, raising livestock, wind farming, forestry, agriculture support activities, and land with significant potential for agriculture uses. Golf courses and golf-related activities may also be included in the district, provided the land is not in the highest productivity categories (A or B) of the Land Study Bureau's detailed classification system. Conservation lands include areas necessary for protecting watersheds, scenic and historic areas, parks, wilderness, forest reserves, open space, recreational areas, habitats of endemic plants, fish and wildlife, and all submerged lands seaward of the shoreline. The conservation district also includes lands subject to flooding and soil erosion.

The Hawaii State Plan (HRS Chapter 226)—serves as a guide for future long-term development of the State. It includes: goals, objectives, policies, and priorities for the State; a basis for determining priorities and allocating limited resources; improvement of coordination between Federal, State, and county plans, policies, programs, projects, and regulatory activities; and a process of coordination of State and county activities. In addition, the Hawaii State Plan directs appropriate State agencies to prepare functional plans for their respective program areas. Fourteen State Functional Plans serve as the primary implementing vehicle for the goals, objectives, and policies of the Hawaii State Plan. The major theme of the functional plans focuses on the promotion of a balanced growth approach in the use of the State's limited resources. This recognizes the need for economic development while preserving the environment and multi-cultural lifestyle throughout the State. (U.S. Army Space and Strategic Defense Command, 1993, Oct, p.5-4)

Coastal Zone Management Act of 1972, as amended (16 USC 1451, et seq)—The Federal Coastal Zone Management Act excludes Federal lands from the coastal zone. However, Federal agencies that conduct activities directly affecting the zone must ensure that the activity is consistent with the State's Coastal Zone Management Program. The Hawaii Coastal Zone Management Program (HRS Chapter 205A), which is administered by the DLNR, regulates public and private uses in the coastal zone. The objectives and policies of the program consist of providing recreational resources; protecting historic and scenic resources and the coastal ecosystem; providing economic uses; reducing coastal hazards; and managing development in the coastal zone. (U.S. Army Space and Strategic Defense Command, 1993, Oct, p.5-8)

The Hawaii Coastal Zone Management Program designates special management areas in the coastal zone which are subject to special controls on development. These areas extend inland from the shoreline and are established by the county planning commission or by the county council. The special management area is a designated area inland to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters. The County of Kauai has established guidelines (U.S. Army Space and Strategic Defense Command, 1993, Oct, p.5-8) for the review of developments on non-Federal lands proposed for the special management areas (figure 3.1.1.8-1). Any development within the special management area requires a special management area permit.

Upon annexation to the United States in 1898, the Republic of Hawaii ceded approximately 708,225 hectares (1,750,000 acres) of government lands (lands set aside by Kamehameha III for the benefit of the chiefs and people) and Crown lands (lands personally reserved by Kamehameha III) to the United States. In 1959, title to the majority of these lands was transferred back to the State under Section 5 of the Admission Act, to be held in a public trust for specifically identified purposes. Subsequently, a public trust fund was created for the receipt of funds derived for the sale, lease, or other disposition of the ceded lands. In 1978, the State Constitution was amended to specify that the ceded lands were to be held by the State in a public trust for Native Hawaiians and the general public and to create the Office of Hawaiian Affairs (OHA), which was given the responsibility for management of the public trust funds covering the ceded lands. (U.S. Department of Transportation, 1992, July, p.3-26) Appendix E provides an overview of land title for DOD property addressed in this EIS.

Noise Regulations

Noise Control Act (PL 92-574, 42 USC 4901, et seq.)—directs all Federal agencies to the fullest extent within their authority to carry out programs within their control in a manner that promotes an environment free from noise that jeopardizes the health or welfare of any American. The act requires a Federal department or agency engaged in any activity resulting in the emission of noise to comply with Federal, State, interstate, and local requirements respecting control and abatement of environmental noise. Workplace noise is under the jurisdiction of the OSHA, and is thus addressed primarily in sections addressing Health and Safety, rather than Noise.

Department of Defense Noise–Land Use Compatibility Guidelines—state that sensitive land use, such as residential areas, are incompatible with annual day-night average sound levels (DNL) greater than 65 A-weighted decibels (dBA) (62 C-weighted decibels [dBC]).

Noise Pollution (HRS 19-342F)—directs the State to prevent, control, and abate noise pollution. The statute is directed to continual long-term noise event.

Socioeconomics Regulations

A number of regulatory compliance requirements, discussed in other resource areas, have an indirect effect on socioeconomics. Examples include the Coastal Zone Management Act, the Hawaii State Planning Act, Hawaii Land Use Law, and Hawaii State Environmental Policy Law. These regulations attempt to promote economic development, foster life-styles compatible with the environment, and preserve the variety of life-styles traditional to Hawaii through design and maintenance of neighborhoods that reflect the culture and mores of the community.

Transportation Regulations

Highways for the National Defense Act (23 USC 210)—addresses the special use of public highways for military purposes; sets policies, procedures, and funding protocols for specific military use of public highways; and establishes a National Strategic Highway Corridor Network. This network is coordinated with civil highway authorities to ensure the Nation's highway system meets defense needs.

Ports and Waterways Safety Act, as amended—seeks to enhance navigation and vessel safety; protect the marine environment; and protect life, property, and structures in, on, or immediately adjacent to the navigable waters of the United States. This act implements many International Maritime Organization standards concerning maritime safety.

Utilities Regulations

Clean Water Act of 1972 (PL 92-500, 33 USC 1251, et seq.)—authorizes the USEPA to regulate wastewater discharge to surface waters. Implementation includes the NPDES permitting process (40 CFR 122), pretreatment programs (40 CFR 403), and categorical effluent limitations (40 CFR 405, et seq.). States must certify that discharges will not violate State water quality standards.

Safe Drinking Water Act of 1979 (PL 93-523, 42 USC 300f, et seq.)—sets primary drinking water standards for owners and operators of public water systems and seeks to prevent underground injection that can contaminate drinking water sources.

Water Quality Act of 1987—requires that the USEPA issue or deny permits for industrial and certain municipal stormwater discharges. The USEPA is also required to establish rules to deal with this permitting responsibility.

Water Pollution Law, Hawaii Revised Statutes, Chapter 342D—provides a regulatory program for discharges of pollutants into the waters of Hawaii. It establishes the NPDES permit program required under the Federal CWA.

Safe Drinking Water Law, Hawaii Revised Statutes, Chapter 340E—provides standards and procedures to maintain an adequate supply of safe drinking water for the State.

Solid Waste Management Law, Hawaii Revised Statutes, Chapter 342G and H—establishes standards for solid waste management facilities and permitting programs; requires integrated solid waste management plans with source reduction as the primary practice; and promotes the use of recycled materials.

Visual and Aesthetic Resources Regulations

Hawaii State Plan (HRS Chapter 226)—serves as a guide for future long-term development of the State. It includes goals, objectives, policies, and priorities for the State; a basis for determining priorities and allocating limited resources; improvement of coordination between Federal, State, and county plans, policies, programs, projects, and regulatory activities; and a process of coordination of State and county activities. Section 226-12 of the State Plan, Objectives and Policy for the Physical Environment, Scenic, Natural Beauty, and Historic Resources provides State objectives regarding visual resources. These objectives include preservation of views to enhance the visual and aesthetic enjoyment of mountains, ocean, scenic landscape, and other natural features.

Water Resources Regulations

Clean Water Act (CWA) of 1972 as amended through 1987 (PL 92-500, 33 USC 1251, et seq.)—prohibits discharges of pollutants into any public waterway unless authorized by a

permit. The NPDES permit establishes requirements for water pollution control. The USEPA is the principal permitting and enforcement agency for NPDES permits. This authority may be delegated to the States. The CWA requires all branches of the Federal government whose activity results in a point-source discharge or runoff or pollution into United States waters to comply with applicable Federal, intrastate, State, and local regulations.

Coastal Barriers Resources Act (CBRA) (16 USC 3501, et seq.)—protects undeveloped coastal barriers from damage associated with development activities as well as the associated fish, wildlife, and other resources in coastal wetlands, marshes, estuaries, and inlets. This act exempts military activities essential to national security and aeronautical scientific research.

Coastal Zone Management Act of 1972, as amended (16 USC 1451, et seq.)—provides incentives for coastal States to develop and implement coastal area management programs. State coastal zone management programs frequently incorporate flood control, sediment control, grading control, and storm water runoff control statues. Consistency with the State Coastal Zone Management Act is addressed under land use.

Rivers and Harbors Appropriation Act of 1899—regulates the disposal of refuse and debris into the rivers and harbors of the United States and makes it illegal to create any obstruction to navigable waters without the approval of USACE.

Safe Drinking Water Act of 1979 (PL. 93-523, 42 USC 300f, et seq.)—requires the USEPA to adopt National Primary Drinking Water Regulations that define maximum contaminant levels in public water systems. The USEPA may delegate primary enforcement responsibility for public water systems to the State. The SDWA seeks to prevent underground injection that can contaminate drinking water sources.

Water Pollution Control Act (33 USC 1251, et seq.), as amended by the Clean Water Act of 1977—is the major Federal legislation addressing water pollution control. The act establishes the NPDES permitting program to control the discharge of pollutants from point sources into the surface waters. It also establishes the Dredge and Fill Permit Program to control the discharge of dredged or fill material into navigable waters. The act requires projects with State nonpoint source pollution control programs. Under the act, the USEPA is the principal permitting agency for NPDES and the USACE and State's environmental agencies are the principal permitting agencies for dredge and fill permits.

Executive Order 11988, Floodplain Management—is intended to avoid, to the extent possible, adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative.

Water Pollution (HRS 19-342D)—provides a comprehensive regulatory program for discharges of pollutants to the waters of Hawaii. It establishes a permitting program, provides for water quality testing by the Hawaii Department of Health, provides enforcement mechanisms to the Department of Health and to the Attorney General. Finally, the Water Pollution Law establishes penalties for violations of its administrative rules and permits (Goodsill Anderson Quinn and Stifel, 1993, p.37).

Safe Drinking Water (HRS 19-340E)—provides standards and procedures designed to maintain an adequate supply of safe drinking water for the State. It establishes state standards for drinking water contaminant levels, procedures for the provision of drinking water in emergency situations and public notification in the event of drinking water contamination. Underground injection activities likely to cause drinking water contamination are also regulated. Finally, the Safe Drinking Water Law provides a system of penalties and remedies applicable in the event of violation of any of its rules (Goodsill Anderson Quinn and Stifel, 1993, p.73).

State Water Code (HRS 12-174C)—provides a comprehensive water resources planning program to address the problems of water supply and conservation in the State. The State Water Code Law enforces the policy that the waters of the State are held for the benefit of the citizens of the State. It declares that the people of the State are beneficiaries and have a right to have the waters protected for their use.

Conservation of Aquatic Life, Wildlife, and Land Plants Act (HRS 12-195D)—serves as the Hawaii Endangered Species Act. It controls the activities relating to or affecting endangered species and also establishes conservation programs. The Conservation Act incorporates the listing of endangered or threatened species under the federal Endangered Species Act into its own listing (Goodsill Anderson Quinn and Stifel, 1993, p.214).

Biological Resources Regulations—Open Ocean

National Marine Sanctuaries Act (1972) (Title III of the Marine Protection, Research, and Sanctuaries Act)—It is the only Federal program specifically designed to protect biological diversity in the ocean and was passed because Congress, in establishing the National Marine Sanctuaries Program, recognized that certain areas of the marine environment possess "conservation, recreational, ecological, historical, research, educational, or aesthetic qualities which give them special national significance." Although the sanctuary program is not a strict wilderness program in the traditional sense and calls for multiple use, the overriding consideration is the protection of the natural resource values of the particular area. The law does not specifically prohibit any activity within a marine sanctuary, but does give NOAA broad authority to regulate any activities that are not compatible with resource protection.

Marine Mammal Protection Act (1972) (16 USC 1361 et. seq.)—prohibits the taking (harassing, hunting, capturing or killing) on the high seas, of any marine mammal by persons or vessels subject to the jurisdiction of the United States. Of particular concern is the protection of whales, porpoises, seals, and sea lions by NOAA. The goal of the act is to maintain marine mammal population levels at or above the "optimum sustainable population," which is defined as the range of population levels from the largest supportable within the ecosystem to the population level that results in maximum net productivity. If the population levels fall below the optimum sustainable population, it is declared "depleted." When depleted, intentional takings are permitted only for research purposes or for subsistence and handicraft purposes, and a species recovery plan must be developed. Species designated as endangered or threatened are automatically designated "depleted."

Ocean Dumping Act (1972) (Title I of the Marine Protection, Research, and Sanctuaries Act)—governs the disposal of all materials into the ocean, including sewage sludge,

industrial waste, and dredged materials. Amendments in 1980 also prohibited the ocean dumping of radiological, chemical, or biological warfare agents or high-level radioactive wastes. Further amendments in 1983 prohibited the issuance of permits authorizing the ocean dumping of any low-level radioactive wastes or radioactive waste materials, unless certain requirements were met.

Endangered Species Act (1973) (16 USC 1536 et. seq.)—gives to the Secretary of Commerce, through the National Marine Fisheries Service, responsibility for the recovery of most marine species. The act authorizes the Secretary to identify endangered or threatened species, designate habitats critical to their survival, establish and conduct programs for their recovery, enter into agreements with States, and assist other countries to conserve endangered and threatened species. The Federal government is also authorized to enforce prohibitions against or issue permits controlling the taking of or trading in endangered or threatened species. Federal agencies are prohibited from funding, authorizing, or carrying out projects any projects that jeopardize the existence of or modify the habitats of endangered species.

Clean Water Act (1977) (33 USC 1344)—is the principal Federal legislation governing water pollution control, with the objective of maintaining and restoring the chemical, physical, and biological integrity of U.S. waters. The act provides protection from direct discharges into marine waters through the application of the Ocean Discharge Criteria of section 403 (c). Prior to issuing any National Pollutant Discharge Elimination System permit for discharge into marine waters, the EPA must determine that the discharge will not "unreasonably degrade the marine environment."

Act to Prevent Pollution from Ships (1980) (Sections 1901 to 1911 of Title 33 of U.S. Code)—applies to ships of U.S. registry or nationality, or ships operated under authority of the United States, wherever located, in addition to ships registered in a country that is a member of the International Convention for the Prevention of Pollution from Ships (the MARPOL Protocol) and ships in the navigable waters of the United States, and is aimed at reducing pollution from ocean-going vessels. Pollution reception facilities at a port or terminal must be "adequate" to receive "the residues and mixtures containing oil or noxious liquid substances from seagoing ships."

Marine Plastics Pollution Research and Control Act (1987)—bans the dumping of plastics within the U.S. EEZ and by U.S. vessels anywhere in the ocean. The act also requires several studies to be conducted by the EPA and NOAA to determine the extent of the impacts of plastics pollution on fisheries and wildlife and to explore methods to reduce such waste in the marine environment.

Executive Order No. 12114, *Environmental Effects Abroad of Major Federal Actions* (1979)—provides for three types of environmental reviews: environmental impact statements; international bilateral or multilateral environmental studies; and concise reviews of the environmental issues involved, including environmental assessments, summary environmental analyses, or other appropriate documents. Major Federal actions significantly affecting the environment of the global commons outside the jurisdiction of any nation (e.g., the oceans or Antarctica) require the preparation of an environmental impact.

Appendix K
Consultation Request and Response Letters

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/0175
11 March 1998

Mr Brooks Harper
U.S. Department of Interior
Fish and Wildlife Service
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3108
Box 50088
Honolulu, Hawaii 96850

Dear Mr. Harper:

We would like to initiate the Section 7 consultation process under the Endangered Species Act for the Pacific Missile Range Facility Enhanced Capability program. The analysis of biological impacts contained in the attached Draft Environmental Impact Statement have been provided for your concurrence.

Two endangered plant species and 17 endangered or threatened species of wildlife occur in the region of influence of the proposed action and the alternatives including the no action alternative (Table 1). The known locations and distributions of these species relative to the project components are discussed briefly under the Affected Environment chapter of the EIS in Sections 3.1.1.3, 3.1.2.2, 3.1.3.3, 3.1.4.3, 3.1.5.3, 3.2.1.3, 3.2.2.2, 3.3.1.3, 3.3.2.3, 3.4.2.

The potential impacts of the proposed action and alternatives, including the no action alternative, on the listed species are presented in the EIS chapter on Environmental Consequences and Mitigation Measures. Section 4.1.1.3.1 No-action Alternative--Biological Resources, PMRF/Main Base indicates, with the continued implementation of mitigations outlined in the Strategic Target System EIS (U.S. Army Strategic Defense Command, 1992, Feb; Biological Assessment for Strategic Target System, 1991, no significant impacts to threatened or endangered plant or wildlife species is expected and no jeopardy would apply to any of the sensitive species. The USFWS and NMFS concurred with the findings of no jeopardy related to that program. In addition the probability of direct impacts to marine mammals due to ongoing activities under the no-action alternative, is low and in the event an impact occurs it is expected to be negligible. With no take of, or jeopardy to, the species involved.

Section 4.1.1.3.2 Proposed Action--Biological Resources, PMRF/Main Base indicates that with the implementation of the appropriate mitigation measures outlined in the earlier NEPA and ESA documentation, no adverse impacts to threatened and endangered species are expected as a result of construction, or range training and operation.

Sections 4.1.2.2, 4.1.3.3, 4.1.4.3, and 4.1.5.2 Proposed Action--Biological Resources; Restrictive Easement, Makaha Ridge, Kokee, and Kamokala Magazines respectively indicates that with the implementation of the appropriate mitigation measures outlined in the earlier NEPA and ESA documentation, no adverse impacts to threatened and endangered species are expected as a result of construction, or range training and operation.

Table 1: Threatened and Endangered Terrestrial Species in the PMRF/Main Base Region of Influence

Scientific Name	Common Name	Status	
		Federal	State of Hawaii
Plants			
Panicum niihausense	Lau'ehu	E	E
Sesbania tomentosa	Ohai	E	E
Birds			
Anas wyvilliana	Koloa-maoli (Hawaiian duck)	E	E
Asio flammeus sandwicense	Pueo (Hawaiian short-eared owl)	N/A	E
Fulica americana alai	'Alae-ke'oke'o (American/ Hawaiian Coot)	E	E
Gallinula chloropus sandvicensis	'Alae-'ula (Hawaiian Gallinule/common moorhen)	E	E
Himantopus mexicanus knudseni	Ae'o (Hawaiian black-necked stilt)	E	E
Pterodroma phaeopygia sandwicense	Hawaiian dark-rumped petrel	E	E
Puffinus auricularis newelli	A'o (Newell's shearwater)	T	T
Mammal			
Lasiurus cinereus semotus	Hawaiian hoary bat	E	E

Source: U.S. Army Space and Strategic Defense Command, 1993, Oct, p.3-13.

Legend:

E = Endangered
N/A = Not applicable
P = Protected
T = Threatened

Section 4.2.1.3.1 No-action Alternative-- Biological Resources, Niihau indicates there have been no known impacts on sensitive species due to ongoing operations and with the implementation of appropriate, and minor, mitigation impacts to threatened and endangered species, specifically to monk seals and green sea turtles, would be negligible and would not constitute take and would not result in increased jeopardy to the species.

Section 4.2.1.3.2 Proposed Action --Biological Resources, Niihau indicates implementation of the mitigations outlined no jeopardy would apply to the species of concern.

Section 4.3.1.3.1 No-action Alternative--Biological Resources, Tern Island indicates that there are no adverse impacts due to ongoing USFWS and NMFS activities on the Island or in adjacent waters.

Section 4.3.1.3.2 Proposed Action--Biological Resources, Tern Island indicates that with the implementation of the mitigation measures outlined impacts to green sea turtles would be minimal (or negligible) and would not jeopardize the species. Noise impacts to Hawaiian monk seals may result in significant impacts but because of the short term effects and the limited number of launch events the species is not expected to be jeopardized.

Sections 4.3.2.3.1 and 4.3.2.3.2 No-action and Proposed Action respective at Johnston Atoll indicate that no threatened or endangered species would be adversely affected by ongoing or proposed activities at the Atoll.

Section 4.4.1.2 No-Action --Biological Resources--Ocean Area (Outside U.S. Territory) indicates that although there may be some significant impacts on marine mammals, including threatened and endangered species, due to noise generated by sonar activity, such impacts are not expected to jeopardize the continued existence of the species. Other impacts are expected to be minimal and not to result in any jeopardy to the species. (Suggest a list of endangered marine mammals) Endangered marine mammal species potentially effected but not jeopardized include: Hawaiian monk seal, humpback whale, sperm whale, blue whale, fin whale, sei whale (Table 2).

Section 4.4.2.2 Proposed Action--Biological Resources--Ocean Area (Outside U.S. Territory) indicates that based on the current available scientific knowledge, probability of impacts on biological organisms in the open ocean due to the proposed action is minimal. Therefore there the proposed action would not jeopardize the continued existence of any threatened or endangered species present in the Ocean Area outside of the U.S. territory.

In summary, although some threatened and endangered species may be affected by both the No-action and Proposed Actions presented in the EIS, with the implementation of mitigation measures where appropriate and feasible, no jeopardy to the continued existence of any of the species is anticipated as a result of either alternative.

We would appreciate your timely review of the appropriate EIS sections. A Biological Assessment will be provided following the public comment period to support your preparation of a Biological Opinion. We look forward to continued consultation with USFWS on this important project.

Table 2: Summary of Marine Mammals and Sea Turtle Species within the Hawaiian Coastal Area (page 1 of 2)

Common Name of Marine Animal	Name of Species	Federal (State) Status	Range Species Occur	Time Period Within Range	Potential Population in Range Vicinity	Number in Pods	Mating/ Calving Period	Bottom Feeding Habits
Minke Whale	*Balaenoptera acutorostrata*	NL	1,2,3	Year Round mostly Summer/Fall	P	1 - 2	February/ August	No
Sei Whale	*Balaenoptera borealis*	E (E)	1,2,3	Fall & Winter	P	2 - 5	October/ March	No
Blue Whale	*Balaenoptera musculus*	E (E)	1,2,3	Year Round	P	1 - 2	Winter/ Winter	No
Fin Whale	*Balaenoptera physolus*	E (E)	1,2,3	Year Round	P	3 - 7	November/ February	No
Humpback Whale	*Megaptera novaeangliae*	E (E)	1,2,3	December to April	P	1 - 8	Winter/ Winter	No
Byrde's Whale	*Balaenoptera edeni*	NL	1,2,3	Year Round, only in ≥ 68°F (20° C) Water	P	5 - 6	Year Round/ Year Round	No
Pygmy Killer Whale	*Feresa attenuata*	NL	1,2,3	Year Round	P	10 - 50	U/Spring	No
Short Finned Pilot Whale	*Globicephala macrorhynchus*	NL	1,2,3	Year Round, mostly in < 100 m (328.1 ft) Deep Water	P	10 - 200	Year Round/ Year Round	No
Pygmy Sperm Whale	*Kogia breviceps*	NL	1,2,3	Year Round	P	3 - 5	Summer/ Spring	Yes
Dwarf Sperm Whale	*Kogia simus*	NL	1,2,3	Year Round	P	3 - 5	Summer/ Spring	No
Arch Beaked Whale	*Mesoplodon carlhubbsi*	NL	1,2,3	Year Round	P	U	U/U	Yes
Blainville's Beaked Whale	*Mesoplodon dersirostris*	NL	1,2,3	Year Round Along Edge of Continental Shelf or Continental Slope	P	3 - 10	Year Round/ Year Round	Yes
Japanese Beaked Whale	*Mesoplodon ginkgodens*	NL	1,2,3	Year Round	P	U	U/U	Yes
Killer Whale	*Orinus orca*	NL	1,2,3	Year Round	P	5 - 20	Year Round/ Year Round	No
Melon-Headed Whale	*Peponocephala electra*	NL	1,2,3	Year Round	P	20 - 500 75 - 100 consistently	Year Round/ Year Round	Possible
Sperm Whale	*Physeter macrocephalus*	E (E)	1,2,3	Year Round	P	1 - 15	April/August	No
False Killer Whale	*Pseudorca crassidens*	NL	1,2,3	Year Round	470+	4 - 6	Year Round/ Year Round	No
Cuvier's Beaked Whale	*Ziphius carvirastris*	NL	1,2,3	Year Round Cosmopolitan	P	1 - 15	Year Round/ Year Round	Yes
Short-Beaked Common Dolphin	*Delphinrus delphis*	NL	1,2,3	Year Round mostly Winter/Spring	P	100 - 2,000	Summer/ Summer	Yes
Risso's Dolphin	*Grampus griseus*	NL	1,2,3	Year Round in Deep Warm Water 15°-25° C	P 59-77	3 - 30	U/Winter	No

Table 2: Summary of Marine Mammals and Sea Turtle Species within the Hawaiian Coastal Area (page 2 of 2)

Common Name of Marine Animal	Name of Species	Federal (State) Status	Range Species Occur	Time Period Within Range	Potential Population in Range Vicinity	Number in Pods	Mating/ Calving Period	Bottom Feeding Habits
Fraser's Dolphin	*Lagenodelphis hosei*	NL	1	Year Round mostly in > 900 m Deep Water	P 2,952.8 ft	up to 500	U/U	Possible
Northern Right Whale Dolphin	*Lissodelphis borealis*	NL	1,2,3	Year Round mostly Winter/Spring	P	U	U/U	Yes
Pantropical Spotted Dolphin	*Stenella attenuata*	NL	1,2,3	Year Round mostly in 100 - 1,000 m Water	P -328.1 3,281 ft	37 - 1,381	Year Round/ Year Round	No
Spinner Dolphin	*Stenella logirostris*	NL	1,2,3	Year Round	677	10 - 300	Year Round/ Year Round	No
Rough-Toothed Dolphin	*Steno bredanensis*	NL	1,2,3	Year Round mostly in 100 - 1,000 m Water	P -328.1 3,281 test	3 - 4 and up to 50	U/mid-Summer	No
Bottlenose Dolphin	*Tursiops truncatus*	NL	1,2,3	Year Round	P	15 - 1,000	Spring-Summer/ Spring-Summer	Yes
Northern Elephant Seal	*Mirounga angustirostris*	NL	2,3	Year Round	Rarely [1(a,b)]	1 - 2	December/ March	Possible
Hawaiian Monk Seal	*Monochus schauinslandi*	E (E)	3	Year Round Nonmigratory	1,406	U	June-July/ April-May	Yes
Loggerhead Sea Turtle	*Caretta caretta*	T (T)	1,2,3	Year Round, only in Water $\geq$ 22.2° C, Visitor	Rarely 172°F	1	Late Winter/ Early Spring	Yes
Green Sea Turtle	*Chelonia mydas*	T (E)	1,2,3	Year Round only in Water > 30°C	2,900 86°F	1	Early Spring/ Fall	Yes
Hawksbill Sea Turtle	*Eretmochelys imbricata*	E (E)	1,2,3	Year Round	P	1	Early Spring/ Fall	Yes

E - Endangered
T - Threatened
NL - Not Listed
U - Unknown
[1] - Summer/Fall
[2] - Winter/Spring
P - indicates that the species is present within the region but no information is available to estimate the population.

1 - HATS
2 - BSURE
3 - BARSTUR

Source: Mobley, 1997, 4 Dec.

Should you have any questions, please call Mr. Averiet Soto at (808) 375-4775.

Sincerely,

J.A. Bowlin
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, Hawaii 96850

MAY 21 1998

Captain J.A. Bowlin
Commanding Officer
Pacific Missile Range Facility
P.O. Box 128
Kekaha, HI 96752-0128

Reference: *Section 7 Consultation for Pacific Missile Range Facility Enhanced Capability Program*

Dear Captain Bowlin:

The U.S. Fish and Wildlife Service (Service) has reviewed your letter, dated March 11, 1998, requesting a section 7 consultation under the Endangered Species Act. We received the letter in our office on April 23, 1998. Your letter stated that the April 3, 1998, *Draft Environmental Impact Statement* (DEIS) *for Pacific Missile Range Enhanced Capability* contained the analysis of biological impacts to threatened and endangered species that you will use to prepare a Biological Assessment (BA), following the public comment period. As you are probably already aware, the BA should focus on determining whether or not the Department of the Navy believes that the Proposed Action Alternative is likely to adversely affect listed species. Guidance for preparing the BA can be found in 50 CFR Part 402.

When preparing the BA, please bear in mind the following points:

1. The Service has conducted a separate review of the DEIS and has identified several deficiencies that will be described in detail in a separate letter. One problem is that the DEIS does not identify what proportions of missile launches will be conducted from each of the three potential types of missile launch platforms (*i.e.*, land-based platforms, ocean platforms such as ships or barges, and air platforms). Therefore, it is impossible to fully assess impacts to listed species. The Final EIS and the BA must clearly specify how and where target missiles will be launched before the Service can determine whether the project is likely to affect listed species.

2. In addition, the DEIS is deficient in several other respects. Many major environmental issues and impacts were not identified and evaluated. The document fails to provide an adequate analysis of potential biological effects associated with launching missiles from National Wildlife Refuges at Tern Island and Johnston Atoll and does not offer measures to avoid, minimize or mitigate many of the potential project impacts. The Final EIS must correct these deficiencies before it can be used as a supporting document for the BA.

3. Although the species list included with your letter appears complete, please be aware that the Service can only consult under section 7 for listed species under its jurisdiction, *e.g.*, plants, birds, and sea turtles (when they are on land). A separate section 7 consultation should be initiated with the National Marine Fisheries Service for the species under their jurisdiction (*i.e.*, sea turtles in the water and marine mammals).

In summary, we will initiate section 7 consultation on this project upon receipt of an adequate BA. We appreciate your concern for threatened and endangered species. If you have any questions, please contact Interagency Consultation Program Lead Margo Stahl or Fish and Wildlife Biologist Chris Swenson at (808) 541-3441.

Sincerely,

Brooks Harper

Brooks Harper
Field Supervisor
Ecological Services

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, Hawaii 96850

JUL 2 1998

Vida Mossman
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Kauai, 96752-0128

Reference: *U.S. Fish and Wildlife Service Comments on Draft Biological Assessment for Pacific Missile Range Facility Enhanced Capability*

Dear Ms. Mossman:

The U.S. Fish and Wildlife Service (Service) has reviewed the *Draft Biological Assessment* (BA) *for the Pacific Missile Range Facility* (PMRF) *Enhanced Capability*, dated May 22, 1998. The document was hand-delivered to our office on June 4, 1998, without a cover letter. Our assumption is that the Service's response should be directed to your office.

As stated in the implementing regulations, 50 CFR 402.12, the purpose of the BA is to evaluate the potential effects of a project on listed and proposed species and designated and proposed critical habitats, and to determine whether such species or habitats are likely to be adversely affected. At a minimum, the BA should include a list of all listed, proposed and candidate species in the project area and an analysis of effects of the project on these species and their habitats. The Service uses this information to determine whether or not a formal section 7 consultation or a conference is necessary. The National Marine Fisheries Service (NMFS) is responsible for making a similar determination for marine species under its jurisdiction.

The threatened and endangered species list in Table 1-1 on page 1-3 is complete. However, the analysis of potential project effects on listed species is inadequate. The Service reached this determination because the information in the BA is taken from the April 1998 *Draft Environmental Impact Statement* (DEIS) *for PMRF Enhanced Capability*. As discussed in detail in the Department of Interior (DOI) Office of Environmental Policy and Compliance's May 22, 1998, letter to you, the DEIS does not provide an adequate assessment of project impacts to listed species. Therefore, the Service cannot determine whether a formal section 7 consultation or a conference is necessary until we receive additional information that addresses the DOI concerns in their May 22, 1998, letter.

Thank you for providing the opportunity to review the BA. Please refer any questions to Chris Swenson, Fish and Wildlife Biologist, at (808) 541-3441.

Sincerely,

for/ Brooks Harper
Field Supervisor
Ecological Services

cc: Jerry Leinecke, USFWS, Honolulu
Gene Nitta, NMFS, Honolulu

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 7332/ 0785
06 OCT 1998

Mr. Robert Smith
U.S. Department of the Interior
Fish and Wildlife Service
Pacific Island Ecoregion
300 Ala Moana Blvd., Room 3-122
Honolulu, HI 96850

Dear Mr. Smith:

This letter formally transmits the Draft Biological Assessment (BA) for the Pacific Missile Range Facility's (PMRF) Enhanced Capability Environmental Impact Statement (EIS). You requested this transmittal and acknowledged in your letter of 2 July 1998 that the list of threatened and endangered species is complete. As discussed with my representatives on 19 June 1998, we have determined that no formal Section 7 Consultation with the U.S. Fish and Wildlife Service is required.

The Navy has fully considered your comments on Tern Island and Johnston Atoll and, agree that prior to decisions which would include activities at these alternatives, further environmental analyses would be necessary. For this reason and because of our confidence in air and mobile sea platform launch capabilities, the Navy is no longer actively considering the use of Tern Island and Johnston Atoll as a part of the proposed action. No activities are proposed to occur within refuge boundaries.

We believe any potential impacts to monk seals and green turtles at Niihau can be avoided entirely by operational considerations and that no adverse effects will occur. The region of influence identified on Niihau does not include any endangered birds; therefore, no adverse effects are anticipated.

Your staff has contributed greatly to this analysis effort. We look forward to a close and productive relationship as we implement this and other Department of Defense programs at the Pacific Missile Range Facility.

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Enclosure: 1. PMRF Enhanced Capability Draft Biological Assessment

5090
Ser 7332/

Copy to: (w/o encl)
Mr. Chris Swenson, USFWS Honolulu

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Islands Ecoregion
300 Ala Moana Boulevard, Room 3-122
Box 50088
Honolulu, Hawaii 96850

In Reply Refer To: PMRF (kwr)

OCT 22 1998

Captain J.A. Bowlin
Commanding Officer
U.S. Navy
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Hawaii 96752-0128

Dear Captain Bowlin:

This responds to your October 6, 1998, letter transmitting the draft biological assessment (BA) for the Pacific Missile Range Facility's (PMRF) Enhanced Capability Environmental Impact Statement (EIS). In your letter, you stated that the U.S. Navy is no longer considering the use of Tern Island and Johnston Atoll as areas of action. In your letter and supporting draft BA you further clarified that the areas of action on the island of Niihau will not include endangered waterbird habitats, mitigation measures to avoid potential impacts to endangered and threatened seabirds on the islands of Kauai and, if needed, Niihau would be implemented as suggested by the U.S. Fish and Wildlife Service (Service), and all beach-related construction and operations on Niihau will be undertaken only after surveys have verified the absence of nesting or basking green sea turtles.

Based on the information provided in your letter and accompanying draft BA, in accordance with section 7 of the U.S. Endangered Species Act of 1973, as amended, the Service concurs with your determination that the proposed PMRF's enhanced capability is not likely to adversely affect endangered or threatened species. However, obligations under section 7 of the Act will need to be reconsidered if (1) new information reveals impacts of this identified action that may affect listed species or critical habitat in a manner not previously considered, (2) this action is subsequently modified in a manner that was not considered in this assessment, or (3) a new species is listed or critical habitat determined that may be affected by the identified action.

We appreciate your concern for endangered and threatened species and your continued support for endangered species recovery efforts in the Pacific. If you have any questions, please contact biologist Chris Swenson of my staff (phone: 808/541-3441, fax: 808/541-3470).

Sincerely

Donald Palaski

Robert P. Smith
Pacific Islands Manager

cc: Gene Nitta, NMFS Honolulu
Jerry Leinecke, USFWS Refuges, Honolulu

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/0178
11 March 1998

Mr. Eugene Nitta
Pacific Islands Protected Species Program Manager
National Marine Fisheries Service
2570 Dole Street
Honolulu, Hawaii 96822-2396

Dear Mr. Nitta:

We would like to initiate the Section 7 consultation process under the Endangered Species Act for the Pacific Missile Range Facility Enhanced Capability program. The analysis of biological impacts contained in the attached Draft Environmental Impact Statement have been provided for your concurrence.

Two endangered plant species and 17 endangered or threatened species of wildlife occur in the region of influence of the proposed action and the alternatives including the no action alternative (Table 1). The known locations and distributions of these species relative to the project components are discussed briefly under the Affected Environment chapter of the EIS in Sections 3.1.1.3, 3.1.2.2, 3.1.3.3, 3.1.4.3, 3.1.5.3, 3.2.1.3, 3.2.2.2, 3.3.1.3, 3.3.2.3, 3.4.2.

The potential impacts of the proposed action and alternatives, including the no action alternative, on the listed species are presented in the EIS chapter on Environmental Consequences and Mitigation Measures. Section 4.1.1.3.1 No-action Alternative--Biological Resources, PMRF/Main Base indicates, with the continued implementation of mitigations outlined in the Strategic Target System EIS (U.S. Army Strategic Defense Command, 1992, Feb; Biological Assessment for Strategic Target System, 1991, no significant impacts to threatened or endangered plant or wildlife species is expected and no jeopardy would apply to any of the sensitive species. The USFWS and NMFS concurred with the findings of no jeopardy related to that program. In addition the probability of direct impacts to marine mammals due to ongoing activities under the no-action alternative, is low and in the event an impact occurs it is expected to be negligible. With no take of, or jeopardy to, the species involved.

Section 4.1.1.3.2 Proposed Action--Biological Resources, PMRF/Main Base indicates that with the implementation of the appropriate mitigation measures outlined in the earlier NEPA and ESA documentation, no adverse impacts to threatened and endangered species are expected as a result of construction, or range training and operation.

Sections 4.1.2.2, 4.1.3.3, 4.1.4.3, and 4.1.5.2 Proposed Action--Biological Resources; Restrictive Easement, Makaha Ridge, Kokee, and Kamokala Magazines respectively indicates that with the implementation of the appropriate mitigation measures outlined in the earlier NEPA and ESA documentation, no adverse impacts to threatened and endangered species are expected as a result of construction, or range training and operation.

Section 4.2.1.3.1 No-action Alternative-- Biological Resources, Niihau indicates there have been no known impacts on sensitive species due to ongoing operations and with the implementation of

Table 1: Threatened and Endangered Terrestrial Species in the PMRF/Main Base Region of Influence

Scientific Name	Common Name	Status	
		Federal	State of Hawaii
Plants			
Panicum niihausense	Lau'ehu	E	E
Sesbania tomentosa	Ohai	E	E
Birds			
Anas wyvilliana	Koloa-maoli (Hawaiian duck)	E	E
Asio flammeus sandwicense	Pueo (Hawaiian short-eared owl)	N/A	E
Fulica americana alai	'Alae-ke'oke'o (American/ Hawaiian Coot)	E	E
Gallinula chloropus sandvicensis	'Alae-'ula (Hawaiian Gallinule/common moorhen)	E	E
Himantopus mexicanus knudseni	Ae'o (Hawaiian black-necked stilt)	E	E
Pterodroma phaeopygia sandwicense	Hawaiian dark-rumped petrel	E	E
Puffinus auricularis newelli	A'o (Newell's shearwater)	T	T
Mammal			
Lasiurus cinereus semotus	Hawaiian hoary bat	E	E

Source: U.S. Army Space and Strategic Defense Command, 1993, Oct, p.3-13.
Legend:
E = Endangered N/A = Not applicable
P = Protected T = Threatened

appropriate, and minor, mitigation impacts to threatened and endangered species, specifically to monk seals and green sea turtles, would be negligible and would not constitute take and would not result in increased jeopardy to the species.

Section 4.2.1.3.2 Proposed Action --Biological Resources, Niihau indicates implementation of the mitigations outlined no jeopardy would apply to the species of concern.

Section 4.3.1.3.1 No-action Alternative--Biological Resources, Tern Island indicates that there are no adverse impacts due to ongoing USFWS and NMFS activities on the Island or in adjacent waters.

Section 4.3.1.3.2 Proposed Action--Biological Resources, Tern Island indicates that with the implementation of the mitigation measures outlined impacts to green sea turtles would be minimal (or negligible) and would not jeopardize the species. Noise impacts to Hawaiian monk seals may result in significant impacts but because of the short term effects and the limited number of launch events the species is not expected to be jeopardized.

Sections 4.3.2.3.1 and 4.3.2.3.2 No-action and Proposed Action respective at Johnston Atoll indicate that no threatened or endangered species would be adversely affected by ongoing or proposed activities at the Atoll.

Section 4.4.1.2 No-Action --Biological Resources--Ocean Area (Outside U.S. Territory) indicates that although there may be some significant impacts on marine mammals, including threatened and endangered species, due to noise generated by sonar activity, such impacts are not expected to jeopardize the continued existence of the species. Other impacts are expected to be minimal and not to result in any jeopardy to the species. (Suggest a list of endangered marine mammals) Endangered marine mammal species potentially effected but not jeopardized include: Hawaiian monk seal, humpback whale, sperm whale, blue whale, fin whale, sei whale (Table 2).

Section 4.4.2.2 Proposed Action--Biological Resources--Ocean Area (Outside U.S. Territory) indicates that based on the current available scientific knowledge, probability of impacts on biological organisms in the open ocean due to the proposed action is minimal. Therefore there the proposed action would not jeopardize the continued existence of any threatened or endangered species present in the Ocean Area outside of the U.S. territory.

In summary, although some threatened and endangered species may be affected by both the No-action and Proposed Actions presented in the EIS, with the implementation of mitigation measures where appropriate and feasible, no jeopardy to the continued existence of any of the species is anticipated as a result of either alternative.

We would appreciate your timely review of the appropriate EIS sections. A Biological Assessment will be provided following the public comment period to support your preparation of a Biological Opinion. We look forward to continued consultation with NMFS on this important project.

Table 2: Summary of Marine Mammals and Sea Turtle Species within the Hawaiian Coastal Area (page 1 of 2)

Common Name of Marine Animal	Name of Species	Federal (State) Status	Range Species Occur	Time Period Within Range	Potential Population in Range Vicinity	Number in Pods	Mating/ Calving Period	Bottom Feeding Habits
Minke Whale	*Balaenoptera acutorostrata*	NL	1,2,3	Year Round mostly Summer/Fall	P	1 - 2	February/ August	No
Sei Whale	*Balaenoptera borealis*	E (E)	1,2,3	Fall & Winter	P	2 - 5	October/ March	No
Blue Whale	*Balaenoptera musculus*	E (E)	1,2,3	Year Round	P	1 - 2	Winter/ Winter	No
Fin Whale	*Balaenoptera physolus*	E (E)	1,2,3	Year Round	P	3 - 7	November/ February	No
Humpback Whale	*Megaptera novaeangliae*	E (E)	1,2,3	December to April	P	1 - 8	Winter/ Winter	No
Byrde's Whale	*Balaenoptera edeni*	NL	1,2,3	Year Round, only in ≥ 68°F (20° C) Water	P	5 - 6	Year Round/ Year Round	No
Pygmy Killer Whale	*Feresa attenuata*	NL	1,2,3	Year Round	P	10 - 50	U/Spring	No
Short Finned Pilot Whale	*Globicephala macrorhynchus*	NL	1,2,3	Year Round, mostly in < 100 m (328.1 ft) Deep Water	P	10 - 200	Year Round/ Year Round	No
Pygmy Sperm Whale	*Kogia breviceps*	NL	1,2,3	Year Round	P	3 - 5	Summer/ Spring	Yes
Dwarf Sperm Whale	*Kogia simus*	NL	1,2,3	Year Round	P	3 - 5	Summer/ Spring	No
Arch Beaked Whale	*Mesoplodon carlhubbsi*	NL	1,2,3	Year Round	P	U	U/U	Yes
Blainville's Beaked Whale	*Mesoplodon dersirostris*	NL	1,2,3	Year Round Along Edge of Continental Shelf or Continental Slope	P	3 - 10	Year Round/ Year Round	Yes
Japanese Beaked Whale	*Mesoplodon ginkgodens*	NL	1,2,3	Year Round	P	U	U/U	Yes
Killer Whale	*Orinus orca*	NL	1,2,3	Year Round	P	5 - 20	Year Round/ Year Round	No
Melon-Headed Whale	*Peponocephala electra*	NL	1,2,3	Year Round	P	20 - 500 75 - 100 consistently	Year Round/ Year Round	Possible
Sperm Whale	*Physeter macrocephalus*	E (E)	1,2,3	Year Round	P	1 - 15	April/August	No
False Killer Whale	*Pseudorca crassidens*	NL	1,2,3	Year Round	470+	4 - 6	Year Round/ Year Round	No
Cuvier's Beaked Whale	*Ziphius carvirastris*	NL	1,2,3	Year Round Cosmopolitan	P	1 - 15	Year Round/ Year Round	Yes
Short-Beaked Common Dolphin	*Delphinrus delphis*	NL	1,2,3	Year Round mostly Winter/Spring	P	100 - 2,000	Summer/ Summer	Yes
Risso's Dolphin	*Grampus griseus*	NL	1,2,3	Year Round in Deep Warm Water 15°-25° C	P 59-77	3 - 30	U/Winter	No

Table 2: Summary of Marine Mammals and Sea Turtle Species within the Hawaiian Coastal Area (page 2 of 2)

Common Name of Marine Animal	Name of Species	Federal (State) Status	Range Species Occur	Time Period Within Range	Potential Population in Range Vicinity	Number in Pods	Mating/ Calving Period	Bottom Feeding Habits
Fraser's Dolphin	*Lagenodelphis hosei*	NL	1	Year Round mostly in > 900 m Deep Water	P 2,952.8 ft	up to 500	U/U	Possible
Northern Right Whale Dolphin	*Lissodelphis borealis*	NL	1,2,3	Year Round mostly Winter/Spring	P	U	U/U	Yes
Pantropical Spotted Dolphin	*Stenella attenuata*	NL	1,2,3	Year Round mostly in 100 - 1,000 m Water	P -328.1 3,281 ft	37 - 1,381	Year Round/ Year Round	No
Spinner Dolphin	*Stenella logirostris*	NL	1,2,3	Year Round	677	10 - 300	Year Round/ Year Round	No
Rough-Toothed Dolphin	*Steno bredanensis*	NL	1,2,3	Year Round mostly in 100 - 1,000 m Water	P -328.1 3,281 test	3 - 4 and up to 50	U/mid-Summer	No
Bottlenose Dolphin	*Tursiops truncatus*	NL	1,2,3	Year Round	P	15 - 1,000	Spring-Summer/ Spring-Summer	Yes
Northern Elephant Seal	*Mirounga angustirostris*	NL	2,3	Year Round	Rarely [1(a,b)]	1 - 2	December/ March	Possible
Hawaiian Monk Seal	*Monochus schauinslandi*	E (E)	3	Year Round Nonmigratory	1,406	U	June-July/ April-May	Yes
Loggerhead Sea Turtle	*Caretta caretta*	T (T)	1,2,3	Year Round, only in Water $\geq$ 22.2° C, Visitor	Rarely 172°F	1	Late Winter/ Early Spring	Yes
Green Sea Turtle	*Chelonia mydas*	T (E)	1,2,3	Year Round only in Water > 30°C	2,900 86°F	1	Early Spring/ Fall	Yes
Hawksbill Sea Turtle	*Eretmochelys imbricata*	E (E)	1,2,3	Year Round	P	1	Early Spring/ Fall	Yes

E - Endangered
T - Threatened
NL - Not Listed
U - Unknown
[1] - Summer/Fall
[2] - Winter/Spring
P - indicates that the species is present within the region but no information is available to estimate the population.

1 - HATS
2 - BSURE
3 - BARSTUR

Source: Mobley, 1997, 4 Dec.

Should you have any questions, please call Mr. Averiet Soto at (808) 375-4775.

Sincerely,

J.A. Bowlin
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

14 MAY 1998 F/SWRx1:ETN

Captain J.A. Bowlin
Commanding Officer
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Hawaii 96752-0128

Dear Captain Bowlin:

Thank you for your letter requesting consultation under Section 7 of the Endangered Species Act of 1973, as amended, regarding the effects of the proposed Pacific Missile Range Facility Enhanced Capability Program. We concur that consultation should include the species listed in your letter. However, because the leatherback turtle (*Dermochelys coriacea*) may be affected, this species should also be included. Both listed and non-listed marine mammals may also require an incidental take authorization under the Marine Mammal Protection Act of 1972, as amended, if any of these species are taken during the course of the proposed Program.

Critical habitat for the Hawaiian monk seal (*Monachus schauinslandi*) has been designated in the Northwestern Hawaiian Islands which is within the proposed activity area. Critical habitat for other listed species under the jurisdiction of the National Marine Fisheries Service (NMFS) has not been designated or proposed in or near the activity area.

The nature and scope of the preferred alternative as described in the Draft Environmental Impact Statement for Pacific Missile Range Facility Enhanced Capability may affect the listed species identified in your letter. Accordingly, the NMFS will consider formal consultation for this activity to be initiated when we receive the Biological Assessment.

Mr. Eugene T. Nitta at the Pacific Islands Area Office will be conducting this consultation. He may be reached at (808) 973-2987 should there be any questions or requirements for further information.

Sincerely,

William Hogarth, Ph.D.
Regional Administrator

cc: F/SWRx1 - Nitta
F/PR2 - Payne, Hollingshead

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 7332/ 0786
06 OCT 1998

Mr. Eugene T. Nitta
Pacific Islands Protected Species Program Manager
National Marine Fisheries Services
Southwest Region
Pacific Area Office
2570 Dole Street
Honolulu, HI 96822-2396

Dear Mr. Nitta:

The Navy has fully considered comments received on Tern Island and Johnston Atoll and agree that prior to decisions, which would include activities at these alternative sites, further environmental analyses would be necessary. For this reason and because of our confidence in air and mobile sea platform launch capabilities, the Navy is no longer actively considering the use of Tern Island and Johnston Atoll as a part of the proposed action. No activities are proposed to occur within refuge boundaries.

We believe any potential impacts to monk seals and green turtles at Niihau can be avoided entirely by operational considerations and that no adverse effects will occur. The region of influence identified on Niihau does not include any endangered birds; therefore, no adverse effects are anticipated.

We would like to continue informal consultation with the National Marine Fisheries to ensure that all possible effects and appropriate mitigations are identified. Your staff has contributed greatly to this analysis effort. We look forward to a close and productive relationship as we implement this and other Department of Defense programs at the Pacific Missile Range Facility.

J. A. BOWLIN
Captain, U. S. Navy
Commanding Officer

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213
PACIFIC ISLANDS AREA OFFICE
2570 Dole St., Room 106
HONOLULU, HAWAII 96822-2396

October 21, 1998

Captain J.A. Bowlin
Commanding Officer
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Hawaii 96752-0128

Dear Capt. Bowlin:

This letter provides the results of the Section 7 consultation on the potential effects of construction, modification, enhancement, and maintenance of support facilities, and of instrumentation, launch, and flight activities associated with the enhancement of Pacific Missile Range Facility (PMRF) capabilities on green turtles, Hawaiian monk seals, and humpback whales. The results of this informal consultation are based on our review of the existing operations and proposed enhanced capabilities of PMRF, in particular, on information provided in the Biological Assessment, the Draft Environmental Impact Statement for the Pacific Missile Range Enhanced Capability, visits to the proposed additional launch and instrumentation sites, and coordination meetings with the U.S. Navy and preparers of the Environmental Impact Statement.

The first project coordination and site evaluation meeting was held on November 14, 1996 at PMRF. From that date until the Preparation Notice for the DEIS was published on May 23, 1997, a number of coordination meetings and on-site evaluations were conducted by the U.S. Navy. The DEIS was published on April 3, 1998. The request for consultation was received on March 15, 1998. The NMFS response indicated that consultation would be considered initiated with the receipt of the Biological Assessment (BA) which was received in late April. In September 1998, the U.S. Navy requested that Tern Island and Johnston Atoll be removed from consideration in the consultation.

The U.S. Navy proposes to continue operations and enhance the capability of PMRF on Kauai to support various test, evaluation and training missions for the Department of Defense and other users of the Facility, including the developmental and operational testing and training associated with the Navy Theater Ballistic Missile Defense (TBMD) program. The TBMD program is a layered defense system that consists of an upper tier (Theater-wide) and a lower tier (Area). Area defense systems would

intercept missiles that penetrate the upper tier and those short-range, low altitude ballistic missiles that can underfly the upper tier. The Theaterwide system would be designed to engage missiles at long-range and high altitude (outside the atmosphere) and to protect a very large area (theater). This concept of multiple tiers or layers of interceptors is based on having the upper tier intercepts occurring at altitudes greater than 100 kilometers (km) (62 miles [mi]), while the lower tier component intercepts targets at altitudes of less than 100 km (62 mi).

For the purposes of this consultation, potential impacts are related to PMRF needs for enhanced launch capabilities and instrumentation. Three target launch scenarios may be used as components of the enhanced capabilities of the Proposed Action: (1) mobile sea-based (floating) launch platforms such as the Mobile Aerial Target Support System (MATSS) or the Sea Launch Platform (SLP); (2) aerial platform-based launches from specially configured aircraft; and (3) land-based target missile launch facilities. Interceptor missile launches may take place from land-based facilities at PMRF, Niihau, and from sea-based systems such as the MATSS, SLP, or active AEGIS ships of the fleet. Although described in the BA and DEIS, no activities are contemplated at this time for Tern Island, French Frigate Shoals, or Johnston Atoll.

Instrumentation upgrades or enhancement requires adding to, or installing new instrumentation components in existing facilities on Kauai, Maui, and Oahu, and placement of mobile or temporary instrumentation packages, or construction of new facilities for instrumentation, at Niihau. Target and interceptor missile launch capability enhancement may require the construction of new launch facilities at PMRF/Main Base and Niihau.

The U.S. Navy determined and NMFS concurs that except for any potential instrumentation-related construction activity at Niihau the enhancement of instrumentation capability and the use of that instrumentation will not adversely affect any listed threatened or endangered species under the jurisdiction of the NMFS.

The potential target and interceptor launches from land-based facilities at PMRF/Main Base and Niihau are evaluated for potential effects on listed species. Air-based drop launches are addressed only insofar as the potential for launch termination debris, booster drop, and intercept debris may affect the open ocean area marine organisms, as with any other launch.

Ongoing activities at PMRF have been reviewed in previous consultations for other proposals and projects. NMFS concluded that these activities would not likely adversely affect listed species provided that certain operational conditions and conservation recommendations were implemented. Any additional

launch capabilities that might be required or constructed would not significantly add to the effects previously evaluated.

Listed species considered in this consultation include endangered humpback whales (*Megaptera novaeangliae*), endangered Hawaiian0 monk seals (*Monachus schauinslandi*), and threatened green turtles (*Chelonia mydas*).

Critical habitat for humpback whales and green turtles has not been designated or proposed within or near the proposed activity areas.

The following areas have been designated as critical habitat for the Hawaiian monk seal in the NWHI (53 FR 18990, May 26, 1988): All beach areas, sand spits and islets, including all beach crest vegetation to its deepest extent inland, lagoon waters, inner reef waters, and ocean waters out to a depth of 20 fathoms around the islands and atolls of the NWHI including Nihoa, Necker, French Frigate Shoals, Gardner Pinnacles, Maro Reef, Laysan, Lisianski, Pearl and Hermes Reef, Midway (except for Sand Island and its harbor), and Kure.

The continued operation of PMRF will not adversely affect designated critical habitat for the Hawaiian monk seal under the revised proposed action.

Although blue whales, fin whales, sei whales, and sperm whales, and loggerhead, leatherback, and olive ridley turtles are found in the broad ocean area around the Hawaiian Archipelago, NMFS has determined that the proposed action is not likely to adversely affect these species.

Four stocks of humpback whales have been recognized in the North Pacific basin based on genetic and photo-identification studies: two eastern North Pacific, one central North Pacific and one western Pacific. The central North Pacific stock of humpback whales winters in the waters of the Main Hawaiian Islands and feeds on the summer grounds of Southeast Alaska and Prince William Sound. In Hawaiian waters, their distribution is almost exclusively within the 1,000 fm isobath and usually within 100 fm.

The Hawaiian monk seal is currently found throughout the Northwestern Hawaiian Islands (NWHI), specifically: Kure Atoll, Midway Islands, Pearl and Hermes Reef, Lisianski Island, Laysan Island, French Frigate Shoals, Necker Island, and Nihoa Island Monk seals are less frequently observed at Gardner Pinnacles and Maro Reef and are also seen in the waters and on beaches in the main Hawaiian Islands. Although counts are unavailable, based on opportunistic sightings, there may be a significant population of monk seals using the Kauai - Niihau - Kaula complex of islands.

Scattered but consistent sightings of monk seals around the remainder of the main Hawaiian Islands and a low but consistent occurrence of pupping on Kauai, Oahu, Maui and Molokai indicate that breeding age females and males are present. However, the relatively isolated atolls and islands of the NWHI still comprise the known primary terrestrial habitat of the Hawaiian monk seal.

The only species of sea turtles that may potentially be affected by the proposed activities is the Hawaiian population of green turtles given their proximity and distribution around Kauai, and Niihau. Green turtles are found throughout the Hawaiian Archipelago, and are considered to be a separate stock from other North Pacific basin nesting populations based on genetic analysis. There are known green turtle foraging areas in proximity to PMRF on the south shore of Kauai, and likely around Niihau and Kaula.

Low levels of green turtle nesting have been reported from Kauai (D. Heacock, pers. comm.) and Niihau (B. Robinson, pers. comm.). In 1985 one green turtle nest was reported near base housing at PMRF.

There are no reliable reports of hawksbill turtles from Kauai and Niihau.

Potential Effects on listed species:

The potential effects of ongoing activities at PMRF have been evaluated in previous reviews and consultations. NMFS determined that these activities would not likely adversely affect humpbacks whales.

These previous analyses indicated that the probability of spent boosters or terminated launch debris striking a whale is less than 4.6 chances in 1 million (4.6×10^{-6}).

The launch noise or any possible explosion may have the potential to startle but is unlikely and would not be expected to physically harm any whales offshore.

Sonic booms would be expected to affect the open ocean marine environment beyond the bathymetric contours where larger numbers of whales might occur, and would be expected to have minimal impact on the species because the numbers of whales per square mile are low and effects on individual whales are not expected to be significant.

Green turtles near PMRF main base and Niihau are the most likely to be affected by PMRF activities and development of enhanced capability. Hawaiian green turtles commonly forage off Kauai and

PMRF, and in 1985 one turtle nest was observed near base housing at the southern end of PMRF/Main Base. However, no other use of the PMRF/Main Base area by sea turtles has been documented. Green turtles occasionally nest on selected beaches on Niihau and also forage around the island.

Construction that would reduce any green turtle foraging habitat is not contemplated, and any construction on or adjacent to beaches at Niihau will be minimized so as to not disturb any areas of basking or nesting habitat.

The probability of spent boosters or terminated launch debris striking a sea turtle is expected to be at least as small as that of striking a whale. The launch noise or any possible explosion would not be expected to affect any turtles offshore. As with large cetaceans in the broad ocean area, any effects of sonic booms on green turtles are likely to be insignificant given the expected very low density of turtles per square mile of open ocean.

A few individual monk seals may potentially be affected by the proposed action on Niihau and Kauai during construction activities in proximity to the shoreline. Other launch activities conducted inland from the beaches are not likely to affect monk seals.

The revised Proposed Action is expected to have no significant effect on the Hawaiian monk seal in the area of the PMRF/Main Base region of influence because monk seal use of PMRF is rare. The mitigation measures already in place for ongoing operations are expected to be implemented for any increased activity under the Proposed Action. For instance, if monk seals are observed during safety clearance activities for a Strategic Target System launch, the launch would be delayed until the seals have cleared the area. The potential for debris from a spent booster or a terminated launch striking a monk seal or other marine mammal was evaluated for the Strategic Target System EIS and found to be remote. Potential noise impacts on biological resources due to missile launch and related activities at the PMRF/Main Base complex were addressed in the Strategic Target System EIS and were found to be negligible.

On Niihau, the use of landing craft to bring supplies and personnel ashore or dredging activities at Ki'i Landing could potentially disturb monk seals hauled out in proximity to the landing sites. Personnel would be informed of restrictions limiting their activities to project facilities where their specific responsibilities would be carried out. This would also minimize or eliminate disturbance of the seals. Overall the enhanced capabilities of the Proposed Action on Niihau is likely to have a minimal effect on Hawaiian monk seals using the island.

Based on the best available information, NMFS concludes that the proposed enhancement of capabilities for PMRF on Kauai and Niihau is not likely to adversely affect any threatened or endangered species under NMFS jurisdiction or critical habitat designated for the Hawaiian monk seal provided that certain conservation recommendations are implemented by the U.S. Navy. This conclusion is based on information provided in the Biological Assessment, the DEIS for the proposed action, site inspections, existing published and unpublished literature, and anecdotal reports from biologists, managers, and land owners from these areas.

A marine mammal species or population stock which is listed as threatened or endangered under the ESA is, by definition, also considered depleted under the Marine Mammal Protection Act of 1972 (MMPA). The ESA allows takings of threatened and endangered marine mammals only if authorized by Section 101(a)(5) of the MMPA. However, no listed marine mammals are expected to be taken. Accordingly no takings of listed marine mammals during construction or operations are authorized.

The following conservation recommendations should be implemented by the U.S. Navy in order to reduce the potential for incidental harassment of green turtles and Hawaiian monk seals during the conduct of the proposed activities for PMRF. These recommendations also encourage the development of management policies and practices for PMRF to collect data for sea turtles and Hawaiian monk seals at Niihau pursuant to Section 7(a)(1) of the ESA.

1) If whales or monk seals are observed during prelaunch safety clearance activities, the launch should be delayed until monk seals and whales are clear of the launch safety zones.

2) Surveys should be conducted of beach areas on PMRF/Main Base and on Niihau for turtle nests prior to amphibious landings or other activities that may impact sandy beaches. This will allow locational shifts in the landings to reduce the potential for impacts to Hawaiian monk seals and green turtles.

3) There is a paucity of data on monk seal abundance and distribution at Niihau. PMRF should work with the owners of Niihau Ranch to develop Hawaiian monk seal and green turtle monitoring programs so that appropriate management measures could be implemented by the owners and residents if necessary. Training on census techniques and provision of data forms for participants could be provided by the NMFS. Contingent upon approval from the land owners NMFS could

also provide analyses and interpretations of the census and observational data for the owners and residents.

4) Studies to investigate the behavioral and physiological responses of large whales and listed sea turtles to high intensity sound of all frequencies should be sponsored and/or funded by the Navy, possibly through the Office of Naval Research. This will provide better information on which to evaluate this and future projects.

This concludes the informal consultation on the action outlined in your request. As provided in 50 CFR 402.16, reinitiation of consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) incidental take of listed species occurs; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this evaluation; or (4) a new species is listed or critical habitat designated that may be affected by the action.

Please contact Mr. Eugene T. Nitta at (808) 973-2987 should you have any further questions concerning this Section 7 consultation.

Sincerely,

C. Karnella

William T. Hogarth, Ph.D.
Regional Administrator

cc: F/SWRx1 - Karnella, Nitta
F/SWR - Hogarth
GCSW

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/0176
11 March 1998

Mr. Michael D. Wilson
Chairman and State Historic Preservation Officer
State of Hawaii
Department of Land and Natural Resources
Historic Preservation Division
33 South King Street, 6th Floor
Honolulu, Hawaii 96813

Dear Mr. Wilson:

We would like to initiate Section 106 consultation and review for actions related to cultural resources aspects of the Pacific Missile Range Facility (PMRF) Enhanced Capabilities Environmental Impact Statement (EIS).

For the purposes of this EIS, information on cultural resources has been compiled from previous environmental documentation conducted at PMRF, it's ancillary facilities, and in the western portion of Kauai by the U.S. Navy, the U.S. Army, the U.S. Department of Energy, and Hawaii State Department of Parks and Recreation.

The areas of cultural resources concern where potential activities and construction may occur as a result enhancing PMRF's mission have been previously addressed and reviewed by SHPO Hawaii in the following environmental documents and supporting materials:

Makaha Ridge and the Kokee areas—

U.S. Army Program Executive Office, Missile defense and U.S. Army Space and Strategic defense Command, 1995. *Final Environmental Assessment Army Mountain Top Experiment, May.*

U.S. Department of the Navy, Pacific Division, Naval Facilities Engineering Command, Environmental Planning Division, 1993. *Environmental Assessment Mountaintop Sensor Integration and Test Program, Kauai, Hawaii,* December.

PMRF, Kauaii Test Facility Area (KTF), and the Restrictive Easement Area—

State of Hawaii, Department of Land and Natural Resources, Division of State Parks, 1994. *Archaeological Reconnaissance Survey: Polihale State Park and Adjacent Lands, Waimea District, Island of Kaua'i,* October.

U.S. Army Space and Strategic Defense Command, 1993. *Final Environmental Impact Statement for the Restrictive Easement, Kauai, Hawaii,* October.

U.S. Army Strategic Defense Command, 1991, Revised 1993. Flores, E. Kalani, and Aletha G. Kaohi, *Hawai'i Cultural and Historical Survey of Nohili, Mana, Kona District, Island of Kaua'i, State of Hawai'i,* July.

U.S. Army Strategic Defense Command, 1992. *Draft Environmental Impact Statement For the Strategic Target System,* February.

U.S. Army Strategic Defense Command, 1990. *Strategic Target Systems (STARS) Preliminary Final Environmental Assessment,* July.

U.S. Army Strategic Defense Command, 1990. Gonzalez, Tirzo, Judy Berryman, and David J. Welch, *Archaeological Survey and Testing Report of the proposed Exoatmospheric Discrimination Experiment (EDX),* July.

U.S. Army Strategic Defense Command, 1990. *Exoatmospheric Discrimination Experiment (EDX) Environmental Assessment,* September.

U.S. Department of Energy, Albuquerque Operation, 1992, *Kauai Test* Facility *(KTF) Environmental Assessment,* July.

U.S. Department of Energy, Albuquerque Operation, 1990. Gonzalez, Tirzo, Judy Berryman, and David J. Welch, *Archaeological Survey and Testing, Department of Energy, Kauai Test Facility (KTF), Barking Sands, Kauai, Hawaii,* Aug.

Section 106 determinations of "no effect" were made for the above referenced projects as no historic sites were identified within the parameters of the project area(s) or mitigation measures were undertaken or put in place in order to attain a determination of "no effect" to identified cultural resources which may have otherwise been effected by project activities.

The U.S. Department of the Navy, Pacific Division, Naval Facilities Engineering Command, has recently finalized a complete inventory of archaeological and historical resources at PMRF for the purpose of providing information to develop a document for the long-term management of historic resources at this installation. A Phase I archaeological survey of previously unsurveyed areas, as well as a historic resources survey (which includes Cold War properties), has also been conducted. An Integrated Cultural Resources Management Plan for PMRF is currently being prepared.

With the exception of the Kamokala Ordnance Magazines locale all of the proposed activity areas within the PMRF, the Makaha Ridge and Kokee complexes addressed in the current Draft EIS have had previous cultural resource documentation and determinations of "no effect" have been made.

In compliance with Section 106, the Navy has conducted cultural resources surveys of the area south of the Kamokala Magazine area as well as twelve potential facility siting areas on the island of Niihau which were under consideration for PMRF Enhanced Capabilities activities. Potential facility siting areas on Niihau were inspected for cultural resources. Most of these areas were found to be overgrown by dense stands of kiawe. Areas where ground visibility was not obscured by vegetation were inspected whenever possible. No traditional cultural resources or areas associated with traditional values or beliefs were identified in eleven of the twelve potential facility siting areas.

The proposed facility siting location which was found to contain significant cultural resources has been eliminated from future consideration as a potential facility siting area. Avoidance of cultural resources was paramount in the selection of all the potential facilities sites. Niihau's elders were consulted with regards to selection of these area in order to avoid cultural resource areas and to ensure that traditional cultural values and beliefs would not be compromised by any of the proposed actions at these locations. Since no cultural resources were found to exist within the proposed facility siting locations, it is expected that the Navy's proposed actions will have no effect on the island's historic resources. However, the

consideration of any siting locations on Niihau would be preceded by a complete field inspection of those locations and their surroundings.

Should cultural resources be discovered as a result of future field surveys related to this project, they would be investigated and evaluated in terms of National Register of Historic Places eligibility criteria. When these evaluations have been made, all appropriate measures would be taken to mitigate impacts to resources or properties considered to be eligible. Avoidance of cultural resources by relocating a potential facility siting area to another locale (where these resources are absent) would be the primary mitigation measure.

Through the implementation of the appropriate pre-construction studies, monitoring, consultation with SHPO Hawaii, and by following U.S. Navy and PMRF guidelines for protection of historic resources, potential adverse effects to cultural resources will be reduced or eliminated.

Should you have any questions, please call Mr. Averiet Soto at (808) 375-4775.

Sincerely,

J.A. Bowlin
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

JENJAMIN J. CAYETANO
GOVERNOR OF HAWAII



MICHAEL D. WILSON, CHAIRPERSON
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STATE HISTORIC PRESERVATION DIVISION
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REF:HP-AMK

MAY 2 1 1998

J.A. Bowlin, Captain, U.S. Navy
Department of the Navy
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Hawaii 96752-0128

LOG NO: 21458
DOC NO: 9805NM02

Dear Captain Bowlin:

SUBJECT: **National Historic Preservation Section 106 Compliance - Enhancing the Capabilities of the Pacific Missile Range Facility (PMRF) Barking Sands, Waimea, Kauai**

Thank you for the opportunity to review this project.

We can agree that impacts at Makaha Ridge and Kokee area will have "no effect" on significant historic sites.

In the past, PMRF, Kaua'i Test Facility and the Restrictive Easement Area have been given "no effect" determinations with the condition that archaeological monitoring occur to cover the possibility of inadvertent discoveries of historic sites. However, it is unclear in this Draft EIS what mitigation will occur in these areas. The Draft EIS references a ICRMP implementation plan. We have not seen this plan. Until we are able to review it, we cannot evaluate impacts and mitigation proposals in these project areas.

For the Ni'ihau areas covered in the Draft EIS, several reports are mentioned in the Draft EIS (Gonzalez 1997 and Meyer 1998). However, these reports have not been received and reviewed by our office. We need to receive the reports in able to determine if historic sites are in the project areas, and if so, if mitigation proposals are acceptable. Thus, we cannot yet evaluate impacts for these project areas. We assume that these reports cover archaeological work and cover oral historical work for the possible presence of traditional cultural properties.

Kamokala Ordnance Magazines has not undergone an archaeological inventory survey and the Draft EIS indicates that there are possibly historic sites in the area. Thus, an archaeological

inventory survey seems to be needed, before we can evaluate whether historic sites are present in this area, possible impacts on significant sites, and proposed mitigation.

Also, for project areas which are likely to have traditional cultural properties (e.g., burials, gathering areas, etc.), PMRF needs to consult with native Hawaiians on impacts and proposed mitigation. We need to see evidence of such consultation before we can finalize our evaluations of your effect determinations.

If you have any questions, please call Nancy McMahon 742-7033.

Aloha,

MICHAEL D. WILSON, Chairperson and
State Historic Preservation Officer

NM:amk

c. Advisory Council , Western Region

BENJAMIN J. CAYETANO
GOVERNOR OF HAWAII

MICHAEL D. WILSON, CHAIRPERSON
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REF:HP-AMK

AUG 19 1998

J.A. Bowlin, Captain, U.S. Navy
Department of the Navy
Pacific Missile Range Facility
P.O. Box 128
Kekaha, Hawaii 96752-0128

LOG NO: 21897
DOC NO: 9808HM01

Dear Captain Bowlin:

SUBJECT: **National Historic Preservation Act - Section 106 Consultation**
Pacific Missile Range Facility Enhanced Capability and Review of
Draft Cultural Resources Survey Report (Gonzales and Peyton, 1998)
Barking Sands, Waimea, Kauai and Island of Ni`ihau

Thank you for your letter of March 11, 1998, in which you ask to initiate Section 106 consultation with the Hawaii State Historic Preservation Office on the proposed Pacific Missile Range Facility (PMRF) Enhanced Capabilities Project. This proposed undertaking is described in the Draft Environmental Impact Statement (EIS). Our response to your letter was delayed because we had not received the archaeological survey report conducted for this project on the Island of Ni`ihau and at the Kamokala Caves Ordnance Magazine Area on Kauai. As we have now received this report, the following letter includes both our response to the request for consultation and a review of the archaeological survey report entitled *Draft Cultural Resources Survey Report in support of the Pacific Missile Range Facility Enhanced Capability* (Gonzales and Peyton, 1998). We are still reviewing the proposed Memorandum of Agreement (MOA) submitted to our office for this project.

Kauai Test Facility and the Restrictive Easement Area, PMRF

As stated in your letter, all the proposed activity and construction areas within the Makaha Ridge and Kokee area and within the Kauai Test Facility and the Restrictive Easement Area, PMRF, have been reviewed by our office for previous projects. For the Makaha Ridge and Kokee project areas, we concur with a "no effect" determination. In the Test Facility and Restrictive Easement Area, most of the project areas have been heavily disturbed in the past but, based on past experiences, we are concerned that remnants of subsurface burial sites or temporary habitation deposits could be exposed by project elements involving subsurface excavation. Given the degree to which these project areas have been previously disturbed

and the relatively low frequency with which such deposits are found, we believe these "adverse effects" can be justifiably mitigated by an archaeological monitoring plan. The monitoring plan can be stipulated in the MOA for this project and can conform with inadvertent discovery procedures recommended by the Integrated Cultural Resources Management Plan.

Ni`ihau

As for the draft cultural resources survey prepared for activity areas on Ni`ihau, we feel that additional work is needed before we can enter into discussions concerning effect. Our first concern is that the report include a thorough synthesis of the known and probable distribution of historic properties on Ni`ihau, including traditional cultural properties. While the archaeological survey adequately inspected seven of the 12 locations where specific activities will take place, the EIS identifies a number of other activities which will occur well beyond the identified 12 locations and commits to evaluating the significance of any historic properties potentially affected by these activities. The EIS clearly describes an "area of potential effect" that is much greater than that portrayed in the archaeological inspection of 12 locations. Neither the report nor the EIS presents sufficient information to determine the effect of the project on historic properties on Ni`ihau or to reasonably devise measures to mitigate any adverse effects on the yet-to-be identified properties.

In the EIS activities identified as having a potential affect on historic properties and as being subject to the historic preservation review process include road construction; increases in vehicular traffic; greater numbers of personnel on the island; a greater probability of accidental fires and need for firebreaks; amphibious landing exercises; the accidental distribution and clean-up of debris; and downed-pilot training exercises. None of these are addressed in the current survey report. Mitigation measures proposed to deal with these potential adverse effects include conducting orientation sessions for personnel working or training on the island; restricting specific areas; establishing protocol for activities in some areas; and preparing guidelines for personnel and specified activities. We do not believe, however, that these probably valid and appropriate mitigation measures can be effectively implemented without a solid understanding of the distribution of historic properties, including traditional cultural properties, over a much broader expanse of the island.

For archaeological properties, we believe additional field work is needed before an adequate syntheses of site types and distribution patterns can be prepared for those potentially impacted areas which should be subject to MOA stipulations. Such syntheses are generally based on information recorded in previous archaeological work, a review of historic documents pertaining to past land use, and information from long-time residents of the area. As so little archaeological work has been conducted on Ni`ihau, there is probably not sufficient information available to define the needed distribution patterns. At a minimum, we believe that further archaeological work should include a sampling of representative areas on the island in order to defined the needed site distribution patterns. This process could be aided by the long-term residents of Ni`ihau who know the island well.

To address the probable presence of traditional cultural properties, we feel an ethnographic study should be conducted to identify, evaluate, and determine the treatment of these properties. As you may be aware, traditional cultural properties are a type of historic property that is eligible for listing on the National Register because of a property's association with the customs, traditions and beliefs of a living community and the property's importance in

maintaining the continuing cultural identity of that community (National Register Bulletin No. 38). The information needed to identify and evaluate this type of historic property can only be gathered from members of the community who have knowledge of these customs, traditions or beliefs. Identification of this site type can not rely solely on conventional archaeological surveys because it often includes features (e.g., places, stones, hills, water sources, etc.) that are not modified by humans and are not, therefore, necessarily recognized or understood by outsiders. The information needed is collected by interviewing knowledgeable community members, generally elders. Federal procedures and policies encourage a level of confidentiality and privacy in the collection and reporting of this information when appropriate.

One reason we believe an ethnographic study is so important is that the probability of traditional cultural properties on Ni`ihau is very high. The number, diversity and integrity of traditional cultural properties is the highest in areas where communities have a strong ethnic identity, have lengthy and stable historical ties to the lands being studied, and have an economic base conducive to maintaining a knowledge of the landscape. It would be harder to find a community in Hawaii that more strongly exemplifies these factors than Ni`ihau. They are the last community of native Hawaiian speakers and their history of relative isolation and remoteness has strengthened their cultural identity. Most community members descend from families that have lived on the island for multiple generations, giving a time-depth and continuity to those kinds of traditions, beliefs, and customs most often associated with particular places or features. Ranching and subsistence activities have kept community members familiar with their landscape and have done relatively little to change that landscape.

We also ask that the ethnographic study, if possible, be conducted for the entire island instead of collecting this information in fragments or on a project by project basis. This is not only appropriate for the kind of overview needed for this particular undertaking, but it could be more cost effective in the long-run. Conducting a comprehensive study initially would reduce the need to approach the same individuals repeatedly for subsequent projects and to continually reiterate background summaries and information required of all reports. A broad approach is also better suited to the nature of ethnographic studies because individuals naturally, over the course of interviews, tend to discuss a wide range of experiences and places that may have little direct bearing on relatively small, distinct project areas. Of greater importance, perhaps, is the advantage of recording information on traditional cultural properties before the lifestyle of the community, inevitably, undergoes even more changes.

Our specific comments on the archaeological survey report (*Draft Cultural Resources Survey)* are presented in Attachment 1. If it is agreed that further work is necessary, this report could be revised and included as an appendix to the broader overview.

Kamokala Ordnance Magazine

We concur that an inventory survey of the Kamokala Ordnance Magazine should not be conducted until the area has undergone a Environmental Site Assessment for hazardous waste materials. An historic property inventory of this waste site can be conducted according to a plan appropriate to the conditions found and any clean-up plans prepared for the waste site. Such a plan should probably be included in the MOA.

If you have any questions, please call Nancy McMahon, our archaeologist on Kauai (742-7033) or Nathan Napoka, History and Culture Branch, in Honolulu (587-0040).

Aloha,

MICHAEL D. WILSON, Chairperson and
State Historic Preservation Officer

HM:amk

c. Advisory Council , Western Region

Attachment 1

Specific Comments
Draft Cultural Resources Survey Report
In support of
Pacific Missile Facility Enhanced Capability Environmental Impact Statement
Proposed Facility Siting Areas, Island of Ni`ihau (TMK 1-1-01)
Kamokala Caves Ordnance Magazine Area, Kaual (TMK: 1-2-02)
Tirzo Gonzalez and Paige Peyton, December 1998

If this report will be included as a supplement or appendix to a larger report, we recommend that some revisions be made so that it will conform with what we routinely expect of inventory survey reports. Our general comments are discussed below followed by comments on specific sections of the report.

General Comments

This inventory survey report inspects 12 locations on the island of Ni`ihau and the Kamokala Ordnance Magazines. On Ni`ihau, we agree that seven (A, B, Q, E, F, G and J) of the 12 TBMD locations were adequately surveyed for historic properties (with the exception of potential traditional cultural properties) and that none are present. An inventory survey of the remaining five areas needs to be completed before we can concur that no historic properties are present at those project locations. If adequately planned, we agree that some of these assessments may be completed under stipulations set out in an MOA because dense vegetation covers some of the locations and the selection of all the activity locations is not final. Optic Sites H and I were not completely surveyed because they are covered in dense lantana and proposed Launch Site K and Airstrip Site M were only partially surveyed because portions of these areas were covered by thick vegetation (Sites K and M). The exact location of Aerostat Site C has yet to be determined. As stated in our letter, we do not believe there is sufficient information to reliably predict the likelihood of historic properties in these areas nor would any mitigation measures preclude the need for the overview of historic property distribution patterns discussed in our letter.

Sections of the report claim that no "sensitive resources" are in particular areas or that "sensitive areas" were avoided. The island's owner and elders of the Hawaiian community were apparently consulted to ensure that "sensitive resources were either avoided completely or any potential impacts minimized." The report does not, however, state whether or not the phrase "sensitive resources" includes any traditional cultural properties which it should in order to comply with Section 106 regulations (CFR) Part 800. We do not doubt that consultation with the Ni`ihau community and the land owner was conducted in good faith to avoid places of importance at or near the 12 locations considered, but we can not concur with a determination of "no effect" unless the report specifically discusses whether any of the "sensitive resources" identified qualify as traditional cultural properties. In order to make this assessment, the report should also discuss, more systematically, the process by which consultation took place, the individuals involved, the concerns raised during consultation, and how these concerns could be mitigated.

We concur with the report's recommendation that the Kamokala Ordnance Magazine should not be conducted until the area has undergone an Environmental Site Assessment for hazardous waste materials. An historic property inventory should be conducted according to a plan appropriate to the conditions found at this waste site and any clean-up procedures undertaken. The need for this plan can probably be included in a stipulation of the MOA.

Specific Comments

Page 7-9 (3.1) The historical background section covers the appropriate kinds of information, but the sources from which this information was drawn should be referenced. Citations should be added to the discussions.

Page 8, para. 3. In discussing the Mahele, it should be stated specifically that, as a result of Mahele, most of Niʻihau became government lands. According to the Indices of Land Commission Awards, an individual named Koakanu was awarded two *ahupuaʻa* on Niʻihau. What became of these lands?

Page 8, para. 4. Use of the terms *ili kupono* and *koa* system of land tenure within this context should be explained because it does not conform with the more commonly used meanings of these terms.

Page 9, para. 3 and Page 11, para. 2. Is the specific location of the ordnance magazine within an area considered a *leina* or is this paragraph implying that all cliffs in this region may be *leina?* Is there ethnographic information suggesting that there is some relationship between a choice of burial sites and the presence of *leina*?

Page 9, para. 4. Is there a reference or particular reason for suggesting that the wet conditions of the Mana Plain encouraged the independent invention of aquaculture on Kauai? We agree that these kinds of environmental conditions could be opportune for the development of acquaculture, but we know of no specific evidence that this was the case on Kauai.

Page 9, para. 6. If the magazines were constructed during World War II, their age is greater than 50 years and they are potentially eligible for listing on the National Register. This possibility should be addressed in the report.

Page 9-10 (Section 4.1). The report should include a section on the known or expected distribution of historic properties in the general areas in which the proposed activities will occur. We routinely ask that survey reports contain an assessment of past land use patterns and the kind of archaeological record that would be expected from these past practices. For archaeological properties, we agree that the relative lack of archaeological information for Niʻihau makes this difficult, but these patterns can also be deduced from a review of historical documents pertaining to past land use or from long-time residents of the island. The report does present some generalizations based on Kikuchi's 1987 observations, but these may apply only to a relatively limited portion of the island. Is some pattern apparent in the distribution of *heiau* and shrines described by Stokes? Does the information collected by Handy in 1931 and cited in the report indicate which areas of the island were cultivated and which are therefore more likely to have remnant features associated with cultivation. Several times the author says that historic properties area

unlikely in a particular area because the area lacks water. A correlation, however, between known water sources and the distribution of historic properties is never argued in terms of documented distributional patterns other than Kikuchi's hypothesis that sites are absent in one area because there are no water sources nearby. Are sites only found near known water sources?

Page 11, para. 3. The text says that Ms. Paige Payton is a "Registered Professional Archaeologist (RPA), Honolulu, Hawaii." We are not sure what this means as there is no official register for archaeologist in Hawaii. Is she registered elsewhere? This should be explained.

Page 11, para. 6, Page 15, 1. The two rock features found at Site M should be evaluated more explicitly according to National Register criteria. It should stated that the ring of stones surrounding the *wiliwili* tree is less than fifty years old and therefore not eligible for listing. The origin and function of the mound, however, is conjecture and should be described as an historic property and its significance evaluated according to National Register criteria.

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
SER 00/ 1238
13 NOV 1998

Michael D. Wilson
Chairperson and State Historic Preservation Officer
State of Hawaii
Department of Land and Natural Resources
State Historic Preservation Division
33 South King Street, 6th Floor
Honolulu, HI 96613

Dear Mr. Wilson:

Thank you for your letter of August 19, 1998, in which you responded to our request for consultation and commented on our Draft Cultural Resources Survey Report (Gonzales and Peyton, June 1998) in support of the Pacific Missile Range Facility (PMRF) Enhanced Capability Environmental Impact Statement (EIS).

This letter responds to the issues raised in your letter and during subsequent communication and meetings with your staff. You stated your concurrence with a "no effect" determination for the Makaha Ridge and Kokee project areas. You expressed your concern that, within the Kauai Test Facility and the Restrictive Easement Area, remnants of subsurface burial sites or temporary habitation deposits could be exposed by project elements involving subsurface excavation; however, you indicated that, due to the previous disturbance of these areas and the relatively low frequency with which such deposits are found, any "adverse effects" could be mitigated by an archeological monitoring plan. You further noted your agreement with our conclusion that a thorough inventory survey of the Kamokala Ordnance Magazine area should not be conducted prior to an Environmental Site Assessment for hazardous waste materials.

With respect to Ni'ihau, you indicated that the archeological survey adequately inspected seven of the twelve locations where specific activities may take place. Dense vegetation at the remaining sites permitted only limited inspection at the time, and they will require additional surveys prior to clearing or ground disturbing activities if any of these sites are selected. We are prepared to conduct these additional surveys and to have a professional archeologist and members of the Ni'ihau community monitor clearing and construction activities at the proposed action sites. You stated your belief that an ethnographic survey, preferably of the entire island, was necessary to identify traditional cultural properties that could be affected by the proposed activities and before appropriate mitigation measures could be devised. Your staff has reiterated this position, except that they have since agreed that the ethnographic survey could be confined to areas in the northern and southern portions of the island where the proposed action sites are located.

Throughout the process of selecting potential sites for various activities to support the Navy's proposed actions, we have closely coordinated with the owners of the island of

Ni'ihau. They, in turn, have facilitated meetings with members of the Ni'ihau community, who were involved in the scoping process and public hearings for the PMRF Enhanced Capability EIS. Elders from the Ni'ihau community were also involved, along with the landowner, in all of the on-island surveys to identify acceptable, potential activity sites, as well as areas that should be avoided due to the existence of archeological or traditional cultural resources. The Navy's approach has been to avoid sites where historic properties (including traditional cultural properties) could be affected by its proposed activities. We have interacted in a sensitive, respectful and non-disruptive manner with the island's owners and residents to ensure that areas of religious, or traditional cultural importance were completely avoided, as well as physical archeological resources that could be more readily identified by professional archeologists.

The Navy has consulted extensively with the owners of Ni'ihau and has advised them of the SHPO's desire that an ethnographic survey be conducted for Ni'ihau. We have also assured the landowners that provisions protecting the confidentiality of information that would be collected as part of the survey would be followed. However, the property owners continue to be reluctant to have an ethnographic survey conducted on Ni'ihau out of concern for confidentiality and unnecessary disruption of the Ni'ihau community. The process we have used to involve the island's owners and residents has been effective in identifying areas that should be avoided as well as areas that could be used without affecting historic properties. This process is consistent with the recognition in the National Historic Preservation Act that the desires of property owners should be respected in listing properties on the National Register of Historic Places, as well as with the guidance at 36 CFR 800.3(b) that the Agency Official may implement the procedures under Section 106 in a flexible manner. Additionally, in accordance with 36 CFR 800.4(b), the Navy has made a reasonable and good faith effort to identify and/or avoid historic properties on the island of Ni'ihau and that the process we have followed is wholly consistent with that which was cited favorably in National Register Bulletin 38 "Guidelines for Evaluating and Documenting Traditional Cultural Properties", relating to involvement of the Lakota Indian tribe in the siting of an MX missile system in Wyoming.

In a teleconference call between you, your staff and my staff on 9 Nov 1998, an agreement in principle was reached to conduct a limited scope ethnographic survey of Ni'ihau provided the landowners agree. This agreement is reflected in the enclosed updated Memorandum of Agreement (MOA) between the Navy and the SHPO which was provided to your staff on 7 October 1998.

The MOA also defines stipulations for mitigating potential effects on historic properties for PMRF mainbase, the Kauai Test Facility, the Restrictive Easement area, and Kamokala Caves Ordnance Magazine Area. We are anxiously awaiting SHPO comments on the draft MOA as well as on the information provided on 18 September regarding on-going activities. Since there are no outstanding issues with respect to areas of potential effect on Kauai, and we are in agreement in principle regarding Ni'ihau, we hope to conclude the MOA as soon as possible.

We have carefully reviewed on-going Navy activities on Ni'ihau and have concluded that they are not undertakings requiring consultation under Section 106 because they do not have the potential to affect eligible properties. They do not involve digging or other ground disturbing activities in areas where historic properties may be located, nor is there otherwise the potential for them to result in changes in the character or use of historic properties. We have provided your staff detailed descriptions of these on-going activities, which we discussed in the PMRF Enhanced Capability EIS under the No-Action alternative in order to establish the baseline against which the Proposed Action would be evaluated.

The enhanced capabilities upgrade at PMRF that will support testing of the Theater Missile Defense programs is extremely important to the Navy, the country and the State of Hawaii. Resolving the Ni'ihau issue is a critical step in keeping this important program on track.

I appreciate your commitment and support in attempting to complete the MOA prior to the Thanksgiving holiday. This will enable us to support timely decisions by the Navy. We look forward to continuing a productive working relationship.

Sincerely,

J.A. Bowlin
Captain, U.S. Navy
Commanding Officer

Enclosure (1)
Copy to: COMNAVBASE PH (NOOL)

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:

5090
Ser 00/1298
23 November, 1998

Mr. Michael D. Wilson
Chairman, Department of Land and Natural Resources
State Historic Preservation Officer
1151 Punchbowl Street
Honolulu, Hi 96813

Dear Mr. Wilson:

As a part of continued consultation under Section 106 of the National Historic Preservation Act (NHPA), members of my staff met with your Historic Preservation Division on November 20, 1998, to discuss and resolve the State Historic Preservation Office's (SHPO) concerns with a draft Memorandum of Agreement (MOA) regarding activities proposed within the Pacific Missile Range Facility (PMRF) Enhanced Capability Environmental Impact Statement (EIS). Agreements, in principle, were reached to resolve these concerns. As well, we reached agreement on a process for finalization of the MOA and completion of the subsequent ethnographic survey for Navy activities on Niihau. The following confirms our understanding of the agreements reached at this meeting.

- Prior to conducting activities on Niihau proposed in the PMRF Enhanced Capability EIS, an ethnographic survey limited to potentially affected areas will be conducted.
- Sites used for ongoing activities would be included within the scope of this survey.
- Ongoing activities would continue for a finite period of time prior to the survey being conducted. Activities mutually agreeable to the State and the Navy may be exempted.
- Prior to the ethnographic survey being conducted, the Navy and the SHPO will agree to specific guidance as to how the ethnographic survey will be conducted.
- Concurrent with the ethnographic survey, additional documentation would be provided to facilitate conclusions on potential effects of these ongoing activities on archeological resources. This may include additonal archeological field work.
- Specific provisions for protection of historic properties would be included within the body of the MOA in lieu of referencing attachments (e.g. additional stipulations).
- Wording of the MOA would be revised to more accurately reflect precise requirements of the NHPA process.
- The Navy would provide documentation of consultation with Office of Hawaiian Affairs, the Kauai/Niihau Burial Council, and Hui Malama I Na Kupuna O Hawaii Nei. MOA signing will occur after documentation of consultation with OHA.
- Attachment H would be revised to include best estimates of the number and approximate frequency of personnel involved in the ongoing activities on Niihau.

5090
Ser 00/

- Minor language modifications were agreed upon in the meeting and will be incorporated into the MOA.
- Include the Advisory Council as a participating signatory to the MOA.
- Provide revision to the supporting cultural resources survey report.

My staff is proceeding with changes to the MOA based on this understanding and will provide a revised copy to your staff as soon as possible. I appreciate your support in resolving issues related to completion of the MOA and I am dedicated to the successful conclusion of this consultation.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Concurrence: _____ Date 11/23/98

Michael D. Wilson
State Historic Preservation Officer
Hawaii

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FAC...
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 00/0177
11 March 1998

Mr. Rick Egged
Director
State of Hawaii
Office of Planning
Department of Business, Economic Development and Tourism
P.O. Box 2359
Honolulu, Hawaii 96804

Dear Mr. Egged:

The Department of the Navy has prepared a Draft Environmental Impact Statement (EIS) for the enhancement of capabilities at the Pacific Missile Range Facility, Kauai, Hawaii (attached). Portions of the action include the coastal zone as defined by the Hawaii Coastal Zone Management Program (HRS Chapter 205A). In compliance with Section 930.4, et seq. of the National Oceanic and Atmospheric Administration federal consistency regulations (15 CFR 930), the Navy has reviewed the proposed program activities in light of the Coastal Zone Management Act and the Hawaii Coastal Zone Management Program and have found them to be consistent to the maximum extent practicable.

A description of the proposed program activities can be found in the attached Draft EIS. In addition, under the Land Use section of each proposed location where activities may occur within the coastal zone, an analysis of potential impacts to the coastal zone in compliance with the Hawaii Coastal Zone Management Program was performed. The sections of the EIS that include a consistency determination are as follows: 4.1.1.8, Land Use - PMRF/Main Base; 4.1.2.7, Land Use - Restrictive Easement; 4.1.3.8, Land Use - Makaha Ridge; 4.4.1.8, Land Use - Kokee; 4.1.5.7, Land Use - Kamokala Magazines; 4.1.6.4, Land Use - Port Allen; 4.2.1.8, Land Use - Niihau; 4.2.2.6, Land Use - Kaula; 4.3.1.8, Land Use - Tern Island; and Appendix D, sections D1.2.3 - Mount Haleakala Tracking Facilities, D1.2.4 - Kaena Point, and D1.2.5 - Wheeler Network Segment Control/PMRF Communication and Computer Sites.

If you have any questions please contact Mr. Averiet Soto, (808) 335-4775.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor

DEPARTMENT OF THE NAVY
PACIFIC MISSILE RANGE FACILITY
P.O. BOX 128
KEKAHA, HAWAII 96752-0128

IN REPLY REFER TO:
5090
Ser 7000/ 0386
23 APR 1998

Mr. Rick Egged
Director
State of Hawaii
Office of Planning
Department of Business, Economic Development and Tourism
P.O. Box 2359
Honolulu, Hawaii 96804

Dear Mr. Egged:

The Department of the Navy initiated a consistency determination with the mailing of our letter to you dated 11 March 1998 and delivery of the two volume set of the Pacific Missile Range Facility Enhanced Capability Draft Environmental Impact Statement dated 3 April 1998. The announcement of the publication of this document was in the Environmental Notice, 8 April 1998.

Although the regulatory time limit exists for your consistency determination within 45 days of our initiating consultation, we would like to take this opportunity to waive that time requirement through mutual agreement. Instead, we request that close consultation continue through issuance of the Final EIS and that determination be made during the waiting period following the publication of the Final EIS. This will allow for incorporation of your recommendations during consultation as well as provide for your basing your determination on our final analysis.

If you have any questions please contact Mr. Averiet Soto, (808) 335-4775.

Sincerely,

J. A. BOWLIN
Captain, U.S. Navy
Commanding Officer

5090
Ser 7332/ 1183
03 NOV 1998

Mr. Bradley J. Mossman, Director
State of Hawaii
Office of Planning
Department of Business, Economic Development and Tourism
P.O. Box 2359
Honolulu, HI 96804

Dear Mr. Mossman:

This letter formally informs you that the Department of the Navy is no longer actively considering the use of Tern Island as a reasonable alternative in the Pacific Missile Range Facility (PMRF) Enhanced Capability Final Environmental Impact Statement (EIS). This has been concluded even though the Navy has reviewed the proposed program activities in light of the Coastal Zone Management Act and the Hawaii Coastal Zone Management and found it to be consistent to the maximum extent practicable. Thus EIS Section "4.3.1.8, Land Use – Tern Island" no longer needs to be analyzed for potential impacts.

The Navy has fully considered comments received on Tern Island and agrees that, prior to decisions which would include activities at this alternative, further environmental analyses would be necessary. For this reason and because of our confidence in air and mobile sea platform launch capabilities, the Navy is no longer actively considering the use of Tern Island as a reasonable alternative of the proposed action.

If you have any questions, please contact Mr. Averiet Soto, (808) 335-4775.

Sincerely,

J.A. BOWLIN
Captain, U.S. Navy
Commanding Officer

Copy to:
CINCPACFLT
COMNAVBASE Pearl Harbor
Mr. John Nakagawa, State of Hawaii, Office of Planning

Prepared by:
A.Soto/332/x4775
21October98/lnh

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Appendix L
Mitigations Tables

Table L-1: Environmental Controls and Potential Mitigations for the Proposed Action

Note: EJ = Environmental Justice

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.1.1.1.2	Air Quality, Main Base	(1)make sure that no missile proposed for launch would emit greater exhaust components than those used for the analysis of air quality impacts for the three primary ground hazard area distances; (2)allow sufficient time between launches so that no exhaust from one launch would impact the ambient air quality during the next
4.1.1.2.2.1	Main Base Controlled and Uncontrolled Airspace	(1)implement stationary ALTRV for airspace utilization to provide for separation between IFR traffic and missile launches
4.1.1.2.2.3	En Route Airways and Jet Routes	(1)implement ALTRV procedures to have minimal impact on the en route low altitude airways (2)Honolulu ARTCC would reroute IFR aircraft using the V-15 low altitude airway when hazardous activities take place within W-188
4.1.1.3.2.3	Bio, Main Base, Base Ops/Maint.	(1)continue efforts to discourage albatross from nesting on base (2)use protective light shields, monitor beach for turtle nesting before amphibious landing
4.1.1.4.2	Cultural, Main Base,	(1)formulate mitigations with ICRMP when completed (2)continue monitoring, consult with SHPO Hawaii, follow ICRMP when completed
4.1.1.5.2	Geology, Main Base	(1)keep proposed sites located in modern alluvial and dune sands unsuitable for agricultural development (2)limit soil disturbance to immediate vicinity of launch pad and service road (3)keep new construction to short duration (4)use BMPs to reduce soil erosion (5)do not launch solid propellant missiles during rain (6)do not use water deluge system for cooling and noise suppression (7)collect remaining fuel from test failure or fire and properly dispose of as hazardous waste (8)water excavated material frequently (9)use soil additives to bond exposed surface soils
4.1.1.6.2	HazMat, Main Base	(1)closely monitor hazmat through PMRF pharmacy system
4.1.1.6.2.1	Facility Construction	(1)construct new facilities in accordance with COE protocols (2)survey for asbestos and lead paint before modifications, remove before modifications (3)handle hazmats/wastes properly (4)all construction activities follow PMRF spill control plan
4.1.1.6.2.2	Target/Defensive Missile Launches	(1)use hazmats similar to current materials to avoid changes current plans (2)modify existing spill, emergency response and hazmat/hazwaste plans to include new compounds (3)PMRF fire and emergency response team would be appropriately trained to handle these materials should a mishap occur (4)update liquid propellant accident response plan as required (5)propellant transfers would take place on concrete pads with spill containment (6) all personnel would wear protective gear and have special training (7)storage facilities would have spill containment in case of a leak (8) remediate all liquid propellant fuel spills (9)dispose of hazwaste properly (10)hazmats resulting from flight termination would be properly cleaned and remediated, waste disposed of in accordance with appropriate regulations (11)make sure PMRF programs would have no cumulative hazmat/waste impacts
4.1.1.7.2.1	Health/Safety, Main Base, Facility Construction	(1)construct new facilities in accordance with COE safety/health requirements (2)siting of launch, ordnance, and instrumentation facilities in accordance with DOD standards (3)survey for asbestos and lead paint prior to facility modifications, remove per regulations to minimize potential for exposure during modifications
4.1.1.7.2.2	Health/Safety, Main Base, Land-Based Target Launch	(1)launch systems would use existing ground hazard areas at PMRF, no new GHAs/clearance procedures would be required

Table L-1: Environmental Controls and Potential Mitigations for the Proposed Action (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
	Pre-Launch Ops	(1)verify launch areas clear, issue NOTAMs, NOTMARs prior to launch (2)use solid propellant boosters similar to those currently used (3)targets would make use of existing launch systems for which previous handling procedures and safety issues have been addressed (4)ship all liquid propellants to PMRF in single-use containers (5)put containers in hazmat storage while awaiting shipping to PMRF (6)store any new propellants proposed in separated storage facilities with appropriate safety features (sun shades, containment) and safety distances (7)have safety procedures developed/approved by PMRF before bringing new liquid propellants (8)keep all unprotected personnel and public excluded from propellant transfer operations (9)store fuels only temporarily at PMRF when required for launch/no permanent storage; transport propellants per DOT regs; put IRFNA drums inside second drum for added shipping protection (10)make sure personnel handling propellants/fuels wear appropriate safety clothing (11)brief personnel regarding health hazards, proof-test all lifting hardware, have annual inspections, personnel certification, vapor concentration detectors; put launch control van upwind, have propellant ops support trailer available, monitor during transfer operations, check all equipment prior to use (12)have propellant draining kit with appropriate crew in case of accident (13)ship target missile liquid propellant oxidizer components by air; make sure flight is over open ocean areas, inspect to detect containment leaks before and during flight (14)if ship by marine vessel, ship on non-passenger vessels with material placement per DOT regs (15)have trained spill response teams on standby; provide trained escorts with truck shipments (16)ship materials to avoid peak road and harbor traffic times (17)notify local fire, police and transportation officials prior to shipments (17)notify state and local officials of shipment (18)conduct vapor leak check and container inspection prior to off-loading from ship and after loading into trucks (19)check propellant containers in storage area for leaks on a weekly basis and anytime debris falls into storage area (20)have trained spill response teams on standby for all liquid missile propellant transportation; make sure all drums pass DOT POP tests; have hazmat emergency response teams follow trucks carrying liquid propellants
	Launch Ops	(1)launches would occur from existing locations or new pads on the northern portion of PMRF (2)launch site is physically isolated before launch; public exposure not to exceed that already mentioned above (3)only existing PMRF GHAs would be used (4)exclude public and non-essential personnel from GHA/LHA; personnel in GHA in bunkers or behind berms (5)remove hazardous debris and dispose of properly after launch anomaly/termination (6)have PMRF fire and hazmat teams on standby during launches for quick response (7)remediate petroleum spills on water (8)terminate target booster flights after missile has left launcher over open water in cleared LHA
	Sea-based Target Launches	(1)launches would occur in open ocean away from populated areas; clear area of unauthorized ships/aircraft; clear LHA and debris impact areas before launch
	Air-based Target Launches	(1)establish safety zones, missile debris impact zones, transportation of components, explosive safety, and hazardous booster emission drops (2)pre-launch activities would be in accordance with DOD and PMRF safety procedures (3)target booster launch would occur over open ocean, which would be cleared prior; LHA/target/intercept debris impact locations verified clear prior to booster release
4.1.1.7.2.3	Defensive missile systems	(1)launch systems would make use of existing GHAs at PMRF (2)clear areas and issue NOTAMs/NOTMARs before launch
4.1.1.7.2.4	Land-based defensive missile system launches; pre-launch ops	(1)determine affected areas clear and issue NOTAMs/NOTMARs prior to launch (2)load liquid propellants into sealed system within missile before shipment to PMRF (3)use existing safety protocols to reduce chances of accidents
	Launch ops	(1)physically isolate area around launch site (2)use only PMRF existing GHAs (3)exclude non-essential personnel and public from area; protect those necessary with bunkers/berms (4)recover hazardous debris from GHA and dispose of properly (5) terminate target booster flights after missile has left launcher over open water in cleared LHA
	Sea-based defensive missile system launches	(1)none of defensive missile assembly for sea-based launches would occur at PMRF (2)clear necessary area of ships/planes before launch; clear LHA before launch; LHA and debris impact locations would be over open ocean
4.1.1.7.2.5	Sensor systems	(1)conduct EMR hazard review before installation of new units (2)establish safety zones before operation; ensure warning lights on units operate properly (3)control ground-level power densities to values that don't exceed human general-population exposure values; ensure same for shipboard radars (4)clear area of exclusion zone before system operation; locate units near ocean with beam directed out over open water (5)conduct EMR emission survey before using aerostat; establish safety zone; have transponder/beacon to warn aircraft

Table L-1: Environmental Controls and Potential Mitigations for the Proposed Action (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.1.1.7.2.7	Base Ops/Maint.	(1)implement PMRF SOPs (2)ensure public not exposed to fatality risk as mentioned above (3)ensure public not exposed to EMR emission, HAPs, hazmat/waste from PMRF; workers follow strict controls; use all safety protocols; conduct tests in unpopulated areas (4)construct all launch pads and storage devices with containment or sump system to contain any spill and required remediation efforts
4.1.1.8.2	Land use, Main Base	(1)keep operations compatible with surrounding land uses and zoning designations; site/use new facilities in accordance with DOD, Navy regs, esp. safety criteria (2)use existing GHAs; don't create new GHAs; do not increase activation time of restrictive easement beyond current agreement (3)keep activities consistent to maximum extent with Hawaii Coastal Zone Mgt Program (4)consult with SHPO, make sure no cultural resources are affected by project activities; don't impact local water quality
4.1.1.8.2.1	Recreation	(1)number of times GHA would be activated would not exceed 30 (up to 15 hours) currently allowed under the existing restrictive easement; pre-launch activities would not affect rec area 3 (2)maintain 24-hour hotline to inform public which beaches would be closed; keep other beaches available during rec area 2 closures
4.1.1.9.2	Noise, Main Base	(1)construction would be temporary in nature/similar to commercial construction site; keep less than 50 additional aircraft ops at PMRF, to not affect current PMRF AICUZ levels (2)make sure noise levels outside GHA where public is excluded would exceed DOD/OSHA safety requirements; personnel in GHA wear protection devices (3)make sure launches from PMRF don't affect residential areas in Kekaha (4)make sure sonic booms generated during launch activities would occur over the Pacific Ocean and would not affect the public on Kauai or Niihau
4.1.1.10.2.1	Population and income	(1)keep pre-launch/launch personnel mainly in local hotels/lodging facilities
4.1.1.10.2.2	Housing	(1)vast majority of visiting personnel will stay in local hotels
4.1.1.10.2.3	Employment	(1)construction labor during pre-launch phase should come from local labor
4.1.1.10.2.5	Tourism/Commerc Fishing	(1)continue to carefully plan exclusion of fishing vessels and give advance warning/operate hotline to allow fishermen to visit alternative waters; keep closure activities of short duration
4.1.1.11.2	Transportation, Main Base	(1)use existing transportation facilities; don't create additional road construction (2)make maximum use of shared vehicle travel for project personnel; plan for off-peak hour travel schedules
4.1.1.12.2.1	Electricity	(1)make sure generators at PMRF can supply power needed for proposed action
4.1.1.12.2.4	Water	(1)make sure amount of water needed would be within capacity of current water system
4.1.1.13.2	Visual, Main Base	(1)new development would occur in the KTF area or just south of this area on land that already contains operational facilities; most of the area proposed for use would consist of existing launch pads; new facilities would be near existing facilities and would present and out-of-character element; new facilities would not be visible to public east of the base; facilities would only affect the viewshed immediately along the coast of PMRF in front of the facilities, and would be located along rec areas 1 & 2; (2)the permanent or temporary liquid fuel storage facilities would not be visible to the public and would not obstruct and vistas; military vehicles, aircraft, and ships used to support TBMD/TMD would be similar to existing equipment and would not be generally visible to the public except for the occasional aircraft operation; (3)PMRF could try to maintain as much natural vegetation around launch pads as safety will allow; vegetation could be maintained along the ocean side of the launch pads if possible
4.1.1.14.2	Water, Main Base	(1)building modifications and new construction would follow standard methods to control erosion during construction; all activities would follow SPCC plans and transportation safety measures
4.1.3.1.2	Air Quality, Makaha	(1)standard construction measures to reduce fugitive dust could be implemented, to include periodic wetting of the disturbed soils at the construction site
4.1.3.2.2.3	Airspace, Makaha, en route airways/jet routes	(1) aircraft would be notified by NOTAMs to advise avoidance of the tracking radar area during program activities; the tracking radar area is likely to be contained within the restricted area R-3101 and the warning area W-188
4.1.3.3.2	Biological, Makaha	(1)locations selected for construction are in already disturbed or in non-native vegetation within the complex (2)could use protective shielding for any outdoor lighting
4.1.3.4.2	Cultural, Makaha	(1)follow ICRMP when it is finished
4.1.3.5.2	Geology, Makaha	(1)soil disturbance will be limited to the immediate vicinity of the proposed sites; new construction will be of short duration; base will use best management practices to reduce potential for soil erosion, could include use of soil stabilizers, use of sandbags for diverting flow, adding protective covering to slopes, and revegetating slopes and open areas as soon as possible

Table L-1: Environmental Controls and Potential Mitigations for the Proposed Action (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.1.3.6.2	Hazmat/waste, Makaha	(1)construction activities would be handled under existing PMRF spill plans, hazmat/waste handled per state/federal regs (2)overall, no new hazmats/wastes generated, would follow appropriate plans
4.1.3.7.2	Health/safety, Makaha	(1)construction of new facilities per COE safety/health requirements; siting of facilities per DOD standards (2)conduct EMR hazard review before installing new radar/telemetry; proposed systems would have appropriate exclusion zones, warning lights (3)all hazmats/wastes handled per state/federal guides; operations conducted per OSHA regs (4)conduct safety analysis before laser installation (5)keep personnel outside of EMR exposure areas
4.1.3.8.2.1	Land Use, Makaha	(1)new facilities would be sited per DOD/Navy regs and safety guides; surrounding areas are compatible; new facilities would be located within complex and wouldn't affect off-site land uses; operations would be compatible with surrounding land uses and zoning; EMR generated would not affect adjacent land uses (2)activities kept consistent with HCZMP; ground disturbance would occur in previously disturbed areas, would not affect biological/cultural resources; facility modifications reviewed by PMRF and SHPO
4.1.3.9.2	Noise, Makaha	(1)access to construction site would be limited; public wouldn't be exposed to construction noise because of site's location
4.1.3.10.2	Transportation, Makaha	(1)equipment would be kept onsite during use and wouldn't have to travel road on daily basis; traffic generated by construction personnel would be temporary, only minor additional traffic
4.1.3.11.2.1	Utilities, Makaha, Electricity	(1)keep recent electrical upgrades maintained
4.1.3.11.2.4	Utilities, Makaha, Water	(1)continue installing new water well (2)implement water conservation program
4.1.3.12.2	Visual, Makaha	(1)addition of new facilities would be consistent with current developed nature of the facility; Proposed Action would not change the already limited view of Makaha Ridge (2)no other development occurs along this section of NaPali Coast; no other development is planned
4.1.3.13.2	Water, Makaha	(1)construction of new facilities/road upgrades would be accomplished using standard engineering techniques to control potential erosion; surface drainages would not be modified
4.1.4.1.2	Air Quality, Kokee	(1)elevated levels of air pollutants would be temporary and would tend to dissipate rapidly at the conclusion of any active disturbance; standard construction practices would be followed to control fugitive dust emissions, may include periodic wetting of disturbed soils
4.1.4.2.2.3	Airspace, Kokee, en route airways/jet routes	(1)aircraft would be notified by NOTAMs to advise avoidance of radar area during program activities; the tracking radar area is likely to be contained within the restricted area R-3101 and the warning area W-188
4.1.4.4.2	Cultural, Kokee	(1)follow ICRMP when it is completed
4.1.4.5.2	Geology, Kokee	(1)soil disturbance would be limited to potential site areas; new construction will be of short duration (2)minimize area exposed during grubbing; use soil stabilizers; use sandbags; add covering to slopes, revegetate slopes
4.1.4.6.2	Hazmat/waste, Kokee	(1)construction activities handled per PMRF spill plans; all hazmats/wastes handled per state/federal regs (2)overall would be no new types of hazmats used/wastes generated; have appropriate plans to handle wastes
4.1.4.7.2	Health/Safety, Kokee	(1)construction of new facilities follow COE guides; site facilities per DOD regs (2)conduct EMR hazard review before unit installation; have appropriate safety zones around each unit; have warning lights on units (3)all hazmats/wastes used/generated handled per state/federal regs; operations follow OSHA regs
4.1.4.8.2.1	Land Use, Kokee	(1)new facilities sited per DOD, Navy safety regs; new facilities located within complex, would not affect the off-site land uses; operations at Kokee would be compatible with the surrounding land uses and zoning; EMR generated by the proposed and existing site radar units would not affect adjacent land uses (2)activities would be consistent to maximum extent with HCZMP; ground disturbance would occur in previously disturbed areas, would not affect biological/cultural resources (3)facility modification would be reviewed by PMRF and SHPO
4.1.4.8.2.2	Recreation	(1)new facilities would be located within the existing developed Kokee site and would not change any existing land uses
4.1.4.9.2	Noise, Kokee	(1)access to construction site will be limited; noise levels the public may be exposed to would be limited to temporary construction activities
4.1.4.10.2	Transportation, Kokee	(1)equipment would be kept onsite during use and would not be required to travel the road on a daily basis; traffic generated by the construction personnel would be temporary and would result in minor additional traffic during the morning/afternoon time periods
4.1.4.11.2.4	Utilities, Kokee, Water	(1)new well would reduce significance of any water demand impacts

Table L-1: Environmental Controls and Potential Mitigations for the Proposed Action (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.1.4.12.2	Visual, Kokee	(1)proposed radar would replace existing units and be similar size and shape, not visible to the public using highway through state park; proposed antenna/facilities no higher than current facilities; no site additions higher than vegetation around site, so wouldn't be visible to public
4.1.4.13.2	Water, Kokee	(1)construction of new facilities would be per standard engineering techniques to control potential erosion; surfaces drainages would not be modified
4.1.5.1.1	Air Quality, Kamokala	(1)standard mitigation of fugitive dust, wetting of construction site to minimize dust generation
4.1.5.2.2	Biological, Kamokala	(1)if site is lighted at night, shields could be installed to reduce effects on shearwater; best engineering practices employed to minimize runoff into drainage
4.1.5.3.2	Cultural, Kamokala	(1)perform hazwaste characterization (2)perform comprehensive ground survey (3)follow ICRMP when completed
4.1.5.4.2	Geology, Kamokala	(1)new construction would be of short duration, base implements best management practices to reduce soil erosion during construction (2)minimize area exposed during grubbing; use soil stabilizers; use sandbags; add covering to slopes, revegetate slopes
4.1.5.5.2	Hazmat/waste, Kamokala	(1)construction activities would be handled per PMRF spill plans; hazmats/wastes handled per state/federal regs; proposed construction would take place in illegal dump site, Navy would remove solid/hazwaste and remediate contamination before construction, would coordinate with state of Hawaii (2)activities at storage magazines don't generate hazwaste; ordnance is managed per state/federal regs
4.1.5.6.2	Health/safety, Kamokala	(1)new facilities sited per DOD, Navy criteria; siting for new facilities would be obtained from DOD explosive safety board; transportation of ordnance per DOT guides; no public facilities or routine activities occur within the ESQD area
4.1.5.7.2.1	Land Use, Kamokala	(1)existing use of adjacent land and within ESQD would be compatible; proposed ESQD for new storage facilities would mostly fall within the existing ESQD for the current storage area; state and county land designations would be compatible (2)Navy would need to revise lease agreement with Hawaii to add about 20 ha of land; PMRF would require a restrictive easement for the ESQD arcs, which would be compatible with land use designations (3)use of proposed storage magazines and ESQD would be compatible with Hawaii state plan and state functional plans; ESQD arcs and land required for new magazines would not include Hawaiian home lands (4)activities at the storage magazines would be compatible to maximum extent practicable with HCZMP; PMRF will consult with SHPO before any construction
4.1.5.7.2.2	Recreation	(1)proposed fencing would only be located adjacent to the facilities and would only minimally reduce the available hunting area within the region
4.1.5.9.2	Visual, Kamokala	(1)storage magazines would be covered with earth material except for entrance door which would face the cliffs outside of public view; vegetation would be cleared from facilities for security purposes; proposed fence would be no larger than necessary to enclose the facilities (2)facility would be effectively blocked from public view by vegetation that lines the public roads near the proposed facilities; proposed site would not obstruct any prominent vistas (3)some vegetation could be allowed to grow on dirt covering magazines; grass and other limited height vegetation is currently used on storage magazines to help reduce erosion
4.1.5.10.2	Water, Kamokala	(1)standard engineering techniques would be employed to control potential surface water erosion; surface drainage would not be modified
4.1.6.8.2	Visual, Port Allen	(1)no development is planned as part of the NA alternative that would further change the visual environment
4.2.1.1.2	Air Quality, Niihau	(1)implement standard construction measures to reduce fugitive dust emissions, including periodic wetting of disturbed soils at construction sites; monitor dust levels prior to launch operations
4.2.1.2.2.1	Airspace, Niihau, Controlled/uncontrolled airspace	(1)implement stationary ALTRV for airspace utilization to provide for separation between IFR traffic and missile launches
4.2.1.2.2.4	Airspace, Niihau, en route airways/jet routes	(1)conduct missile launches within ALTRV airspace; issue NOTAMs to describe the area to be used and the duration of the ALTRV; proposed flight tests would also use warning area w-188, when it is used Honolulu ARTCC would reroute aircraft using the v-15 low altitude airway
4.2.1.3.2.1	Bio, Niihau, Construction	(1)no construction is proposed near the lakes in the southern part of Niihau (2)use appropriate mitigation measures to eliminate import of exotic wildlife species (3)reduce impact on monk seals using landing areas, none of proposed actions would be expected to jeopardize the species
4.2.13.2.2	Operations	(1)monitor beaches for monk seals and conduct landings elsewhere if possible (2)monitor beaches for presence of green sea turtles and conduct landings elsewhere if possible (3)provide fire suppression equipment at launch sites (4)restrict project personnel to facilities where their responsibilities will be carried out (4)obtain prior approval for all site alterations (5)check equipment and personnel for inadvertent pest transportation to the island (6)prior to construction of airstrip develop hazing plan to avoid bird impacts to aircraft.

Table L-1: Environmental Controls and Potential Mitigations for the Proposed Action (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.2.1.4.2	Cultural, Niihau	(1)PMRF would consult with the island's proprietors, the community of Niihau, SHPO, and ACHP to establish/implement mitigation of impacts to cultural resources resulting from PMRF's proposed actions on Niihau (2)all activities on Niihau would avoid any potential sites (3)PMRF will implement appropriate pre-construction studies, monitoring, consultation with SHPO, following Navy/PMRF guides for protection of historic resources (3)complete field inspections would be conducted prior to any siting considerations; any sites discovered would be investigated for NRHP eligibility; appropriate measures taken to mitigate impacts if considered eligible; qualified archaeologist would assist island elders in monitoring during construction and ground disturbing activities (4)construction and flight personnel would receive orientation concerning cultural resources and applicable federal, state, and local regs; construction personnel would be restricted to non-sensitive areas during their stay to protect cultural resources
4.2.1.5.2	Geology, Niihau	(1)soil disturbance limited to vicinity of potential launch pads/associated structures, potential airstrip, potential aerostat, and potential telemetry/instrumentation sites; new construction will be of short duration; base will use best management practices to reduce the potential for soil erosion during construction (2)no launches will occur during rain; launch system will not use water deluge system for cooling/noise suppression; remaining fuel after on-pad fire or over-land failure would be collected and properly disposed of as hazwaste (3)remediate contaminated soils if propellant/oxidizer concentrations great enough to warrant (4) minimize area exposed during grubbing; use soil stabilizers; use sandbags; add covering to slopes, revegetate slopes
4.2.1.6.2	Hazmat/waste, Niihau	(1)construction of new facilities per COE safety regs (2)construction activities handled per PMRF spill plans; hazmats/wastes handled per state/federal regs (3)hazmats used/wastes generated handled per PMRF hazwaste mgt plans; hazmats brought onto island only when required, not permanently stored onsite; all hazwaste shipped from island for proper disposal, not permanently stored onsite; all diesel fuel stored in aboveground tanks (4)prepackaged liquid propellant missiles only brought to Niihau when required, not permanently stored on island; liquid propellant missiles only used on north end of island, not transported through village; fueled target missiles handled per approved SOPs; transfer of propellants per standard transfer procedures (5)will have spill containment kits and hazmat response team on Niihau; any contaminated areas would be remediated; launches of liquid propellant systems would occur on concrete pads or cleared area with spill containment berms (6)all hazardous debris from accident on pad or early flight termination would be contained within ESQD/GHA; will have teams for fire suppression/hazmat emergency; all hazmats/wastes generated during missile mishap would be cleaned up/disposed of per state/federal regs (7)PMRF would have mgt plans in place to minimize potential for hazmat/waste to impact environment; will not leave any hazmat/waste on island; will quickly remediate any spill (8)expand SPCC to address proposed activities on Niihau and application of PMRF waste mgt procedures to Niihau activities
4.2.1.7.2	Health/safety, Niihau	(1) construction of new facilities per COE safety regs (2)siting of launch, ordnance, instrumentation per DOD standards; policy of minimizing contact with islanders and site workers would be followed (3)Navy conduct would EMR hazard review before installation of new units; systems would have proper safety zones prior to operation, units would have warning lights; (4)vegetation around airstrip would be cleared to prevent fire potential; transportation of hazmats conducted per DOT regs, generations of hazwaste per state/federal regs (5)fueled target missiles handled per approved SOPs (6)personnel in hazard zone must wear skin/respiratory protection; thorough decontamination after each transfer operation; spill containment kits and qualified accident response team would be available; any contaminated areas would be remediated (7)missile/launch prep activities conducted per PMRF safety procedures (8)liquid missiles would only be used from the proposed north launch site on the island, avoiding transportation near the village (9)hazardous debris resulting from accident on launcher would be contained within ESQD, which would be clear of personnel; teams would be available for fire suppression, hazmat emergency response, and emergency medical response during launches (10)a GHA and LHA would be established before any missile launch from Niihau (11)non-essential personnel would be excluded from GHA during launch; working personnel protected in bunkers or behind berms (12)missile intercept, debris, and stage impact zones would be determined clear of public and non-essential personnel before launch (13)fire breaks would be cleared around launch site, and fire fighting equipment would be present during launches (14)after a flight termination or anomaly, hazardous debris would be recovered and disposed of per state/federal regs (15)termination of flight after target/defensive missile has left launcher would occur over open water previously determined clear (16)PMRF would conduct appropriate surveys prior to using aerostat, including development of exclusion zones; during ground testing the EMR zone would be contained within a security fence constructed around the site (17)would be a 3-mile exclusion zone around the aerostat system; would have transponder/beacon to warn aircraft (18)one member of team could be trained medical technician to provide initial treatment until person could be moved to medical facility if an injury occurs (19)areas near the flight termination could be monitored for potential contamination levels above health-based standards, to measure specific constituents of the hazard

Table L-1: Environmental Controls and Potential Mitigations for the Proposed Action (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.2.1.8.2	Land Use, Niihau	(1)establishment of facilities under the Proposed Action would occur within the open grazing land on Niihau; construction of these facilities would not occur near the village (2)ESQDs would only include land used for grazing; livestock would be allowed to continue to graze within the ESQD arc; current land use activities would continue even during launch operations with the only restriction being to the island within the 381-m ESQD arc (3)GHA would be cleared for about 30 minutes prior to launch for up to 8 launches/year; residents would be warned of these closure times 1 week in advance of launch time (4)Proposed Action activities would be consistent to maximum extent practicable with the Hawaii Coastal Zone Management Program; Proposed Action activities would only temporarily affect recreational opportunities for residents for up to 4 hours/year; development would alter the visual undeveloped nature of the island but represents less than 1% of the total island area (5)PMRF would consult with SHPO Hawaii prior to any ground-disturbing activities to avoid cultural resource impacts
4.2.1.8.2.1	Recreation	(1)grazing would be allowed to continue around facilities (2)PMRF could work with island residents to avoid conducting operations that would exclude residents from their fishing areas during the best time of day
4.2.1.9.2	Noise, Niihau	(1)construction-related noise would be temporary in nature and occur mostly at the northern and southern ends of the island; construction-related noise would occur during the daytime hours and should not affect island residents; most of major construction noise would only last a couple of months during ground-disturbing activities (2)Proposed Action aircraft operations combined with NA helicopter operations would not exceed 50 per year and would not occur near the village on the island (3)non-essential personnel, public excluded from GHA; personnel within GHA wear hearing protection (4)PMRF operations would be infrequent on the island
4.2.1.10.2.2	Socioecon, Niihau, Subsistence	(1)Niihau's shoreline subsistence fishing, shellfishing, and shell gathering activities will not be reduced over the long term by the proposed action, and the salt ponds at the southern end of the island would not be impacted by launch debris in the event of a flight termination; Navy has established flight corridors which ensure no debris or hazmat would be deposited in these areas from flight termination; short-term closures of adjacent shoreline may be required during test firing activities (2)if cultural protection program is continued and strengthened as necessary, Niihau residents should be able to maintain and practice their culture over the 31-year time frame of this proposed program (3)review and strengthen protection protocol to help reduce construction and operational impacts; provide cultural sensitivity training to off-island personnel who may come into contact with Niihau residents (4)number of Niihau residents employed in construction work could be maximized by technical skill training; training would increase the number of income-earners on the island and reduce the potential for cultural disruption by gradually reducing the non-indigenous workforce
4.2.1.12.2	Utilities, Niihau	(1)newly constructed facilities would be self-contained using generator power and portable toilets; no sewage would be disposed of or left on the island; solid waste would be collected and removed from the island
4.2.1.13.2	Visual, Niihau	(1)none of proposed new facilities except aerostat would be visible from the village on Niihau; aerostat should not block any prominent vistas of the ocean while on the ground (2)aesthetic effects could be minimized by using earth-toned paint on all structures
4.2.1.14.2	Water, Niihau	(1)water for consumption related to Proposed Action activities would be barged to Niihau with no impacts on island resources; are no plans to depend on island water resources (2)proposed airstrip could serve as catchment system depending on how it is built; catchment water could be treated for drinking water as well as for other uses
4.2.1.14.2.1	Construction Activities	(1)operations would follow standard engineering techniques to control erosion; surface drainage would not be substantially modified (2)airstrip would be located so as to minimize cut and fill and changes to the existing surface drainage
4.2.1.14.2.2	Flight Test Activities, Groundwater	(1)standard spill prevention, containment, and transportation safety plans would be implemented (2)airstrip with concrete or metal surface with neoprene liners could provide significant water catchment system
4.2.2.2.2	Bio, Kaula	(1)use area seasonally when marine mammals are not present; survey waters off island to make sure marine mammals are not present; have impact area on south end of the island only
4.3.1.1.2	Air Quality, Tern	(1)access to area controlled by PMRF range safety procedures, public would not have access in any case
4.3.1.3.2.1	Bio, Tern, Construction	(1)dredging activity would be localized (2)perform geological studies before any dredging activity (3)consult with FWS to develop and implement mitigation

Table L-1: Environmental Controls and Potential Mitigations for the Proposed Action (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.3.1.3.2.2	Operations	(1)restrict beach access by personnel to reduce impacts to green sea turtles and monk seals (2)have adequate fire suppression available; keep personnel restricted to staying within sites to which they are assigned (3)no additional plane landings and takeoffs as a result of Proposed Action would occur at Tern, over and above USFWS flights; program personnel would be brought in on the MATSS (4)possible mitigations to help reduce noise and disturbance to monk seal would be developed in consultation with NMFS and USFWS (5)schedule launch activities during period with fewest pups and juveniles present when possible (6)provide light shields to reduce potential effects on birds (7)minimize use of heavy equipment in construction activities on island (8)use MATSS for all support activities (9)follow USFWS established procedures for presenting the introduction of alien species (10)use mobile launchers rather than building a concrete pad (11)compatible use determination must be completed by USFWS before decision to use Tern; an incidental take permit would be applied for before any launches
4.3.1.4.2	Cultural, Tern	(1)program implementation would not involve any kind of extensive ground disturbances (2)PMRF would consult with SHPO Hawaii, ACHP, USFWS to address any cultural resource issues that could compromise the island's potential historic significance as a result of PMRF PA
4.3.1.5.2	Geology, Tern	(1)soil disturbance will be limited to the immediate vicinity of the potential launch pad; new construction will be of short duration; best mgt practices will be implemented to reduce potential for erosion during construction; various measures may be recommended to reduce potential for storm wave erosion as well as surface water erosion (2)no launches will occur during rain; launch system will not use a water deluge system for cooling and noise suppression (3)any remaining fuel would be collected/disposed of properly as hazwaste (4)could use rip-rap, sandbags, soil stabilizers, minimize area exposed during grubbing
4.3.1.6.2	Hazmat/waste, Tern	(1)construction of new facilities per COE requirements; construction activities could generate hazwaste which would be crated and removed from the island for proper disposal; only very small amounts of hazmats would be needed; all diesel storage tanks used on Tern would be above ground with proper containment; hazmats used would only be brought on the island when required for activities and would not be permanently stored on site; any hazwaste generated would be removed after activities are completed and disposed of per state/federal regs; PMRF would develop hazmat mgt and spill plans for Tern which would be submitted to USFWS for approval before program initiation (2)fire suppression/hazmat emergency response teams would be available during operations; all hazmats generated during a missile mishap would be cleaned/remediated by PMRF and disposed of properly per state/federal regs (3)PMRF would have proper mgt plans in place to minimize potential for hazmat/waste to impact environment; PMRF would not leave any hazmats/wastes on the island and would quickly remediate any spill
4.3.1.7.2	Health/Safety, Tern	(1)construction of new facilities would be conducted per COE requirements; before construction, workers would be briefed on hazard of coral sand; any open cuts would be quickly cleaned (2)siting of launch, ordnance, and instrumentation facilities would be per DOD standards; during missile prep activities from east end launches, the ESQD from the launch pad would not encompass the USFWS facilities requiring temp. evacuation of these buildings (3)proper GHA would be established before any launch from Tern or nearby waters; non-mission-essential personnel would be excluded from the GHA during launch operations; GHA from launches on east side would not include FWS facilities on west end, and would not require evacuation, but all personnel would be encouraged to be on MATSS during launch (4)coordination would be made with FWS to minimize impacts to their activities (5)before launch all missile intercept, debris, and stage impact areas would be determined clear of the public and non-essential personnel (6)non-participating personnel would be moved to the MATSS (7)Navy would conduct EMR hazard review before installation of any new unit; units would have proper safety exclusion zones and warning lights (8)survey would be conducted to address potential EMR emission to the ship personnel during aerostat activities; would be 3-mi aircraft exclusion zone around aerostat system; aerostat system would have transponder and beacon (9)one member should be trained medical technician (10)program would also adopt USFWS's emergency planning guides (11)launches would not be conducted during heavy rain or if detect lightning potential gradient of more than 2000V/m
4.3.1.8.2.1	Land Use, Tern	(1)the ESQDs and GHA for missile launch activities would occur over open land; open undeveloped nature of land would be compatible with the GHAs and ESQDs; ESQD land would be controlled for up to 14 days per launch for 4 launches/year; during launch periods, PMRF would coordinate with FWS personnel to minimize impacts to their activities (2)land uses within GHA would continue except during launch ops, when area would be determined clear; current land uses would only be altered temporarily from FWS activities (3)proposed radar/communication sites would be located so not to impact FWS administrative facilities and would be compatible with surrounding open nature of island (4)Navy would request compatibility determination from FWS before any Proposed Action activities could take place on Tern (5)Proposed Action activities on Tern would be consistent to maximum extent practicable with HCZMP (6)Navy would implement mitigation measures in consultation with USFWS and NMFS to minimize impacts

Table L-1: Environmental Controls and Potential Mitigations for the Proposed Action (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.3.1.9.2	Noise, Tern	(1)construction-related noise would be temporary in nature and occur during the day (2)most construction would consist of adding dredge material to the island and erecting either a rail launcher or a radar/telemetry facility; overall construction activities should be less than 6 months; portable generators would only be operated during range operations (3)it is expected that no more than 4 target launches would occur from Tern per year; none of the noise levels outside the GHA where non-essential personnel are excluded would exceed DOD/OSHA safety standards (4)sonic booms generated from launches on Tern would occur over the open water and would not impact the island
4.3.1.12.2	Visual, Tern	(1)proposed facilities at Tern would not contrast with the developed man-made nature of the island (2)proposed facilities would not be out of character with the existing visual environment; no prominent vistas obstructed since island access is restricted
4.3.1.13.2.1	Water, Tern, Construction activities	(1)construction ops would follow standard engineering techniques to control erosion/ surface drainage would not be substantially modified
4.3.1.13.2.2	Flight test activities, surface water	(1)gray/black water waste will be stored onboard the MATSS for duration of an operation; provision has been made to be able to pump the waste water to a standard fitting on the hull of the vessel for offloading to a sewage barge at the Naval Inactive Ship Maintenance Facility in Pearl Harbor following the operation
	Groundwater	(1)standard spill prevention, containment, and transportation safety plans would be implemented; portable filtration equipment and chemical treatment systems could be brought in to treat any catchment system water that was affected by launch emissions
4.3.2.1.2	Air Quality, Johnston	(1)no exceedances of NAAQS or health-based guidance levels would be anticipated beyond the GHA (2)launch emissions would be only intermittent (3)implement measures to reduce fugitive dust from construction activities, such as periodic wetting of disturbed soils at construction sites
4.3.2.3.2.1	Bio, Johnston, Construction	(1)geological studies would be conducted before dredging operations are initiated in coordination with USFWS and NMFS to identify any necessary mitigation measures
4.3.2.3.2.2	Operations	(1)adequate fire suppression would be available (2)restrict construction and launch team personnel to the immediate area necessary for completion of their work (3)use best engineering practices to minimize impacts to bio resources at sites for Proposed Action (4)conduct geological surveys before starting dredging operations
4.3.2.4.2	Cultural, Johnston	(1)PMRF would consult with SHPO, ACHP, and DSWA to establish/implement measures to ensure mitigation of any adverse impacts to potential historic resources that could result from Proposed Action activities
4.3.2.5.2	Geology, Johnston	(1)soil disturbance will be limited to the immediate vicinity of two potential launch pads (2)no launches will occur during rain; launch system will not use a water deluge system for cooling and noise suppression (3)any remaining fuel would be collected and disposed of properly as a hazwaste in event of on-pad fire or early flight failure over land of a solid propellant missile
4.3.2.6.2	Hazmat/waste, Johnston	(1)no new facilities would be constructed on Johnston (2)construction activities would be handled per existing Johnston Atoll hazmat mgt plans (3)any hazwastes generated would be crated and removed from the island for proper permitted disposal per federal regs (4)if construction occurs in old munitions range, site would be remediated prior to activities (5)all diesel storage tanks used would be above ground with proper containment; hazmats used would only be brought in when required for activities and would not be permanently stored on site; any hazwaste generated would be removed after activities are completed and disposed of properly per federal regs; PMRF would coordinate with JA officials to develop proper hazmat mgt and spill plans (6)teams would be available for fire suppression and hazmat emergency; all hazmats generated during a missile mishap would be cleaned/remediated by PMRF and disposed as hazwaste per state/federal regs and in coordination with USFWS (7)proper mgt plans would be in place to minimize potential for hazmat/waste to impact the environment; PMRF would not leave any hazmats/wastes on JA and would quickly remediate any spill

Table L-1: Environmental Controls and Potential Mitigations for the Proposed Action (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.3.2.7.2	Health/safety, Johnston	(1)no new facilities would be constructed at Johnston island; no liquid propellants would be required; construction of new facilities would be conducted per COE requirements (2)workers would be briefed beforehand on hazards of coral sand; any open cuts would be quickly cleaned to prevent infection (3)siting of launch, ordnance, and instrumentation facilities on north, east, and sand islands would be per DOD standards (4)proper GHA would be established before any missile launch from north or east island; non-mission-essential personnel would be excluded from the GHA during launch ops and encouraged to be on the MATSS; the GHA would be no greater than 8000 ft for north island and 10,000 ft for east island (5)the GHA or LHA would not encompass Johnston or other inhabited islands; before launch all missile intercept, debris, and stage impact areas would be cleared of public and non-essential personnel (6)launches would not be conducted during heavy rain or if detected lightning potential gradient of more than 2000 V/m (7)Navy would conduct EMR hazard review before installation of any new radar unit; proposed systems would have proper safety exclusion zones established prior to operation, and would have proper warning lights (8)all hazmats used/wastes generated at the site under the Proposed Action would continue to be handled per state/federal regs; operations conducted per OSHA guidelines
4.3.2.8.2.1	Land Use, Johnston, land use	(1)no new facilities would be required for Johnston island (2)development of facilities and required safety ESQD arcs would be compatible with the open uninhabited land uses of these islands; the open uninhabited land uses associated with this island would be compatible with the required safety areas
4.3.2.8.2.2	Recreation	(1)activation of GHA/LHA restriction areas would be temporary, other areas would be available for use (2)access to JA is restricted for government operations, the Proposed Action would not change this status
4.3.2.9.2	Noise, Johnston	(1)no launches would occur from Johnston island (2)construction-related noise would be temporary in nature and occur during the day (3)construction activities should be less than 6 months; portable generators would only be operated during range operations (4)none of the noise levels outside the GHA would exceed DOD/OSHA standards; personnel in GHA would wear hearing protection; personnel on Johnston island would be warned beforehand of the launch time
4.3.2.11.2	Utilities, Johnston	(1)proposed facilities required for sand, north, and east islands would be self-contained using generator power and portable toilets; solid waste would be collected and removed from the island
4.3.2.12.2	Visual, Johnston	(1)no new facilities would be required for Johnston island (2)proposed new facilities at north, east, and sand islands would not contrast with the developed man-made nature of JA; proposed facilities would not be out of character with the existing military nature of the visual environment; no prominent vistas would be obstructed since island access is restricted
4.3.2.13.2.1	Water, Johnston, Construction activities	(1)construction operations would follow standard engineering techniques to control erosion; surface drainage would not be substantially modified
4.3.2.13.2.2	Flight test activities, surface water	(1)gray and black water waste will be stored onboard MATSS for duration of an operation; provision has been made to be able to pump the waste water to a standard fitting on the hull of the vessel for offloading to a sewage barge at the Naval Inactive Ship Maintenance Facility in Pearl Harbor following the operation
	Groundwater	(1)standard spill prevention, containment, and transportation safety plans would be implemented
4.4	Ocean Area (outside US territory)	(1)exercises take place largely in the deep ocean environment with no known cultural resources; no potential for impacts to geology/soils (2)all activities associated with use of hazmats would be performed prior to putting to sea; no conflicts with land use plans, policies, and controls would exist with activities in the broad ocean area (3)waterborne transportation would not be impacted by ongoing activities; ocean area would be verified clear of any surface ships before exercises begin

Table L-1: Environmental Controls and Potential Mitigations for the Proposed Action (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.4.2.1	Airspace Use, Ocean Area	(1) Missile intercepts conducted within either existing Special Use Airspace in W-188 and W-186 or within the Temporary Operations Area. (2)Target and defensive missile launches and missile intercepts conducted in compliance with DOD Directive 4540.1. (3) Before conducting a missile launch and/or intercept test, NOTAMs sent in accordance with the conditions of the directive OPNAVINST 3721.20. (4) Responsible commander obtain approval from the Administrator FAA, through the appropriate US Navy airspace representative. (5) Hazardous operations would be suspended when any known non-participating aircraft enters any part of the danger zone. (6) All intercept activities takes place in existing special use airspace that has been in existence and is cleared of non-participating aircraft, or within new ALTREV airspace. (2) The well defined special use airspace dimensions and scheduled time of use on aeronautical charts, in addition to the positive air traffic control obviate the need for mitigation measures. Indirect impacts mitigated by implementation of procedures to decrease the disturbance from flight operation, and that stress the importance of effective community relations an the need to keep the public informed. An annual evaluation of flight activities, including missile launch activities to ensure that every effort is made to reduce any averse indirect impacts, including a review of mission changes in regard to supersonic operations.
4.4.2.2	Bio, Ocean Area	No mitigation measures are proposed because standard range warning and checking procedures would check for visible large concentrations of marine mammals in the area of the target launch, trajectory, and landing by dispatched patrol and surveillance aircraft, using surface radar to search the water surface. If contacts are made, the Flight Safety Officer would determine whether to continue, delay or postpone the operations. Parachutes would be weighted and would sink, therefore, not causing a problem to marine mammals.
4.4.2.3	Health/Safety, Ocean Area	No mitigation measures are proposed because the Navy takes every reasonable precaution during the planning and execution of the test and development activities to prevent injury to human life or property. All activities must be in compliance with DOD Directive 4540.1
4.4.2.4	Transportation, Ocean Area	No mitigation measures are proposed because of the rigorous safety procedures employed to determine that the operating areas are clear of surface vessels.
4.4.2.5	Water, Ocean Area	No mitigation measures are proposed
4.5.1.1	Environmental Justice(EJ), Kauai, Air Quality	No change to the current attainment status and no health based air quality standards would be exceeded.
4.5.1.2	EJ, Kauai, Bio	Vegetation and wildlife are not expected to be affected by PMRF operations
4.5.1.3	EJ, Kauai, Cultural	PMRF will consult with the SHPO and Office of Hawaiian Affairs prior to any construction project
4.5.1.4	EJ, Kauai, Geology	Any spill that occurs would be quickly remediated to prevent any soil contamination
4.5.1.5	EJ, Kauai, Hazmat/hazwaste	All hazardous materials used and hazardous waste generated by PMRF on Kauai would be conducted in accordance with Federal and State regulations. Any hazardous materials that would result from an early flight termination would be cleared from the ground hazard area and any contamination would be remediated.
4.5.1.6	EJ, Kauai, Health and Safety	If materials transported on SH 50, PMRF would implement safety procedures to minimize the chance of a mishap and would quickly remediate the problem if one should occur. PMRF may bring hazardous materials directly into PMRF by either barge or aircraft depending on DOT requirements and sea conditions.
4.5.1.7	EJ, Kauai, Land Use	PMRF would continue to allow access to beaches except during hazardous operations. PMRF gives advance notification through a 24-hour hotline. Closure of the southern end of Polihale State Park would occur no more than 30 minutes per launch and no more than 30 times per year.
4.5.1.8	EJ, Kauai, Noise	(1)construction-related noise at various island sites would be temporary in nature and would only affect very limited area; none of noise levels outside of the GHA would exceed DOD/OSHA requirements; personnel within GHA would wear hearing protection (2)number of launches from southern PMRF would be infrequent with most occurring on the northern end of the island
4.5.1.11	EJ, Kauai, Water	(1)any spill that would occur would be quickly remediated to prevent any water contamination
4.5.2.2	EJ, Bio, Niihau	(1)provide fire equipment on the island during hazardous operations to minimize the potential for a catastrophic fire
4.5.2.3	EJ, Cultural, Niihau	(1)continue to consult Niihau elders on any Proposed Action issues involving traditional cultural values and beliefs
4.5.2.4	EJ, Geology, Niihau	(1)soil disturbance from construction would be temporary and would not result in any soil impacts; no significant changes to soil chemistry would occur as a result of missile launching activity; any mishap or spill of hazmats would be quickly remediated to prevent any soil contamination

Table L-1: Environmental Controls and Potential Mitigations for the Proposed Action (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.5.2.5	EJ, Hazmat/waste, Niihau	(1)use/generation of hazmats/wastes would be conducted per state/federal regs; any spill of these materials would be quickly remediated; PMRF would keep proper spill containment devices on the island for the types of hazmats expected to be used; any hazmats resulting from early flight termination would be cleared from GHA and any contamination would be remediated
4.5.2.6	EJ, Health/safety, Niihau	(1)during all operations on the island PMRF would take every precaution to protect the island inhabitants and environment; during launch operations all personnel would be excluded from those areas where there would be the potential for hazardous debris from a missile mishap to fall; at no time would the village area on the island be included within the GHA or ESQD required for missile launch activities (2)EMR generated under both the NA and Proposed Action alternatives would have appropriate exclusion zones to eliminate health hazards to island residents
4.5.2.7	EJ, Land Use, Niihau	(1)PMRF activities are compatible with the open/grazing uses of the island; PMRF activities on Niihau would occur adjacent to compatible open/grazing land uses (2)none of the proposed activities would impact the village on Niihau (3)grazing would be allowed to continue within the GHA during launch activities; the remainder of the island would be available for fishing and gathering activities during launch activities
4.5.2.8	EJ, Noise, Niihau	(1)none of the noise levels outside the GHA would exceed DOD/OSHA safety requirements; personnel with the GHA would wear hearing protection
4.5.2.10	EJ, Visual, Niihau	(1)most of the new facilities would not be visible from the island village and would only block prominent vistas if island residents are in the vicinity of the facility
4.5.2.11	EJ, Water, Niihau	(1)any spill would be quickly remediated to prevent any water contamination
4.6	Conflicts with federal, regional, state/local land use plans/policies	(1)a determination of compatibility on the use of Tern will be made by the USFWS, which will be based on the intended purpose of the refuge and the activities planned for that site (2)PMRF would revise the current restrictive easement with the state of Hawaii for the continued use of lands for safety purposes adjacent to the facility for missile launching activities (3)PMRF would obtain a lease and restrictive easement for the construction and use of two new ordnance storage magazines on Kauai
4.7	Energy requirements and conservation potential	(1)PMRF would continue to implement energy conservation programs

Table L-2: Environmental Controls and Potential Mitigations for the No-action Alternative

Note: EJ = Environmental Justice

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.1.1.2.1.1	Main Base, Land-Based Training and Operations	(1)make sure mission activities would be in compliance with DOD Directive 4540.1 (2)issue NOTAMs before conducting an operation hazardous to aircraft
4.1.1.2.1.2	Base Ops and Maint.	(1)use required scheduling process for airspace usage
4.1.1.3.1.1	Bio., Main Base, Land-Based Train. and Ops	(1)continue to recover MINEX and SLMMEX mines after exercises so there is no residual effect of the exercise on bio. resources. (2)continue program to discourage Laysan albatross from nesting on PMRF (3)conduct surveys of affected beach areas for turtle nesting prior to amphibious landings
4.1.1.3.1.2	Bio., Main Base, , Base Ops and Maint.	(1)relocate plants to protected locations during construction (2)have new lighting designed to minimize reflection to minimize impacts to Newell's shearwater (3)if whales or monk seals are sighted in safety zone or LHA, delay launch until they are clear (4)transport liquid propellant by landing craft to avoid interference with green sea turtle nests on the beach (5)properly shield outdoor lighting (6)survey beach areas where transport vehicles may be used for sea turtle nests in the appropriate season to note and avoid nests during transport (7)install portable blast deflector on launch pad (8)clear dry vegetation from around launch pad (9)spray vegetation around launch pad with water before launch (10)have emergency fire crews available during all launches (11)use open (spray) nozzle to avoid dune erosion/cultural damage
4.1.1.3.1.3	Bio, Main Base, , Offshore Ops	(1)incorporate noise studies results in documents and consider potential for effects on ongoing activities
4.1.1.3.1.4	Bio, Main Base, Sub Mines, Amphibious Warfare Ops	(1)ships conduct operations at low speeds or at anchor (2)landing craft shuttle from ship to shore over short distances to limit area of concern (3)keep close lookout to avoid whales/mammals if they enter the area (4)keep operations localized to small area (5)follow protocols on approaching whales, planning/notices on whale arrival
	Insertion/Extraction of Special Forces from Helicopters	(1)helicopters should avoid overflight of a marine mammal if one is detected (2)avoid mammals at night if detected, clear landing zone visually and with night vision goggles
	EOD and Demolition	(1)clear range before explosive operations (2)divers check for mammals visibly or audibly if animals are vocalizing (3)stop exercise if marine mammals are in vicinity
4.1.1.3.1.5	Bio, Main Base, , Sub Op Exercises, Sub Warfare Exercises	(1)immediately report any significant marine mammal contact to deck officer for appropriate avoidance action (2)proceed at slow speed in shallow waters to allow for navigational corrections (3)continue efforts to recover drones and other aerial/towed targets (4)provide light shields for shearwater, monitor beaches for turtles/seals
4.1.1.4.1	Cultural, Main Base,	(1)continue surveying potential landing areas and avoid those with potentially significant sites, esp. in Major's Bay and Nohili areas
4.1.1.5.1.2	Geology, Base Ops/Maint	(1)keep construction disturbance short-lived (2)implement best management practices to reduce soil erosion
4.1.1.6.1.1	HazMat, Main Base, Land-Based Training/Ops	(1)follow PMRF hazmat usage and waste plans (2)follow state and federal hazmat/waste requirements (3)continue to use hazmat pharmacy system (4)shipped hazmats/wastes according to DOT guides (5)follow appropriate contingency plans in case of emergency
4.1.1.6.1.2	Base Ops/Maint.	(1)continue remediating ground contamination at PMRF
4.1.1.7.1	Health/Safety, Main Base,	(1)continue taking precautions during planning/execution of operations, training, test/development to prevent injury to human life or property
4.1.1.7.1.1	Land-Based train/ops, Pre-launch Ops	(1)follow appropriate safety regs when transporting/handling hazmats (2)maintain appropriate ESQDs around ordnance facilities (3)use shipping containers sufficient to protect solid rocket motors from receiving shock required for explosion (4)follow appropriate regs when transporting missile components (5)follow DOT regs when transporting, handling, storing liquid propellants (5)exclude unprotected personnel during liquid fuel transfers (6)clear ESQD of unprotected personnel (7)have teams for fire, hazmat, medical response during launch ops

Table L-2: Environmental Controls and Potential Mitigations for the No-action Alternative (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
	Launch Ops	(1)isolate area surrounding launch site before launch (2)make sure public will not be exposed to fatality probability greater than 1/10,000,000 for single mission and 1/1,000,000 on annual basis (3)establish ground and launch hazard areas to contain debris (4)exclude nonessential personnel from GHA during launch (5)make sure GHA personnel adequately protected in bunkers/behind berms (6)make sure safety officer always has capability to terminate missile flight if necessary (7)establish overwater LHAs for each type of test (8)verify LHA clear before launch, publish NOTAMs/NOTMARs, coordinate with agencies (9)verify area clear with PMRF aircraft and vessels (10)have missile accident emergency team assembled for all KTF launches (11)recover haz. debris from GHA and dispose of properly (12)terminate flight over open water if necessary
	Electronic Warfare Ops and Sensor Instrumen. Ops	(1)conduct EMR hazard review before installing new radar or modifications (2)continue to conduct radiation hazard surveys of PMRF equipment, implement safety precautions (3)maintain warning lights on radar units (4)verify areas of EMR are clear of the public (5)protect ship personnel with safety areas and computer programs
	Land-based training	(1)clear area of public prior to start of any exercise (2)keep helicopter flight training over unpopulated portions of Kauai and Niihau
4.1.1.7.1.3	Other support facilities	(1)continue to conduct activities with Navy/OSHA regs (2)follow state/Federal guides with hazmats/wastes from operations (3)maintain safety zones around range to prevent risks if range is reactivated
4.1.1.7.1.4	PMRF Tenant Orgs	(1)follow state/Federal guides to manage hazmats/wastes (2)maintain warning lights on EMR units (3)clear EMR hazard area when unit is operating (3)make sure EMR unit does not affect personnel in guard compound (4)keep area blocked with fences and EMR warning signs
4.1.1.7.1.5	Ongoing Maint/Ops	(1)manage hazmats with OSHA/Navy regs to minimize potential for mishap (2)maintain spill response plan and trained personnel to respond if mishap occurs (3)manage hazwaste with state/Federal regs (4)follow PMRF SOPs (5)make sure public not exposed to fatality probability greater than 1/10,000,000 for single mission and 1/1,000,000 on annual basis (6)make sure PMRF workers adhere to strict regulatory control when operating with EMR, HAPs, or hazmats/waste
4.1.1.8.1.1	Land use, Main Base, Land use	(1)keep land uses compatible with the operations and safety requirements of PMRF; keep state and county designations compatible with base activities
4.1.1.8.1.3	Base Ops/Maint	(1)manage land in accordance with PMRF master plan, navy, DOD guidance; adhere to safety guidelines; keep activities consistent with Hawaii Coastal Zone Mgt Program to maximum extent possible; continue to provide recreation areas for public; manage/preserve historic/prehistoric resources in coastal zone; continue to not affect local water quality; continue to aid Kauai economy
4.1.1.8.1.4	Recreation	(1)continue to provide recreational opportunities to public and base personnel; allow access to beaches by public during non-hazardous operations; try to keep PMRF ops during times when beaches are normally posted closed; try to maintain rec area 3 open 24 hours; maintain telephone hotline to inform public which beaches would be closed
4.1.1.9.1	Noise, , Main Base	(1)maintain current hearing protection program; personnel working in noise hazard areas required to wear appropriate hearing protection
4.1.1.9.1.2	Base Ops/Maint	(1)keep most of high noise levels on PMRF contained within base boundary; make sure base aircraft ops don't affect off-base residential areas/sensitive receptors; use noise-reduction abatement in buildings in high noise areas (2)personnel working in noise hazard areas required to wear appropriate hearing protection
4.1.1.10.1	Socioecon, , Main Base	(1)continue advance warning to allow residents, tourists, fisherman to visit alternative locations while closures take place
4.1.1.11.1	Transportation, , Main Base	(1)continue to transport ordnance in accordance with DOT/DOD/Navy safety procedures
4.1.1.12.1	Utilities, Main Base	(1)no additional demands would be made on utilities; current utilities would continue to meet demands
4.1.1.13.1	Visual, Main Base	(1)make sure PMRF does not obstruct any views of the cliffs or the Nohili Dunes; maintain beaches on the installation in a natural setting; make sure visual environment would continue in current setting; no other projects planned for the area that would change the visual environment
4.1.1.14.1	Water, Main Base	(1)continue to follow pollution prevention and SPCC plans during each exercise to reduce potential for impacts from hazmats
4.1.1.14.1.2	Base Ops/Maint	(1)continue to follow pollution prevention and SPCC plans during each exercise
4.1.2.2	Biological, Restrictive Ease (RE), GHA	(1)make sure implementation of restrictive easement would not cause any impacts to the wetlands present in the ROI, which are man-made, artificial wetlands

Table L-2: Environmental Controls and Potential Mitigations for the No-action Alternative (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.1.2.3	Cultural, RE, GHA	(1)PMRF would consult with SHPO Hawaii for issues regarding cultural resources within the RE ROI; land uses within the ROI would remain unchanged from current practices; no new construction is planned under the proposed action (2)no ground-disturbing activities or other activities that could have potential to adversely affect significant cultural resources sites or burials would take place; any concerns expressed by native groups related to program activities would be addressed through consultation with the DLNR SHPO, OHA, and the Hui Malama I Na Kupuna 'O Hawai'I Nei, and any mitigation measures would be determined through that process
4.1.2.4	Geology, RE, GHA	(1)continued use of RE would limit new development which would maintain current physiographic conditions; no other ground-disturbing activities are planned within the ROI
4.1.2.5	Hazmat/hazwaste, RE, GHA	(1)hazwaste resulting from an early flight termination would be cleared and cleaned up in accordance with procedures described in STARS draft and final EISs
4.1.2.6	Health/Safety, RE, GHA	(1)safety measures would be taken to ensure that land within GHA would be clear of public during launches; clearing would include establishing road control points 3 hours before launch, clearing using vehicles, boats, and helicopters if necessary; safety procedures identified in STARS draft EIS would also be implemented
4.1.2.7	Land Use, RE, GHA	(1)no development is proposed within the RE
4.1.2.7.1	Recreation	(1)area of state park in GHA would be reopened after launch as soon as range safety officer declares the area safe; people within RE boundary would be notified 3 hours prior to launch that they would need to move to north end of park; people traveling to and from park would be stopped at control points at RE boundary during time area is closed (2)no cumulative land use changes would be expected (3)state park expansion and RE would maintain current existing land uses in the area and would be compatible; no other activities in the ROI would contribute to recreational closure of state park
4.1.2.8	Noise, RE, GHA	(1)noise levels would be intermittent and of short duration
4.1.2.9	Socioecon, RE, GHA	(1)restricted access to state park during launch activities would neither impact Kauai's tourism industry nor any park revenues associated with camping activities (2)fishermen would be given notice through issuance of NOTMARs and have opportunity to fish adjacent waters outside the surface water hazard area during launch activities
4.1.2.10	Transportation, RE, GHA	(1)activities that could affect transportation access would occur primarily during the time the RE would be cleared during the launch activities at PMRF; area of state park closed during launch activities would be reopened as soon as the range safety officer declares the area safe
4.1.2.11	Utilities, RE, GHA	(1)only direct mission activity that would occur over the RE would be intermittent helicopter flights to ensure clearance prior to missile launches, with no additional requirement of utilities
4.1.2.12	Visual, RE, GHA	(1)under proposed action, continued use of RE would limit new development and allow the current visual character of the area to be maintained; there would be no change in the visual environment from implementation of the RE
4.1.2.13	Water, RE, GHA	(1)no new development is planned that would affect water resources within the RE
4.1.3.1.1	Air Quality, Makaha	(1)current activities would continue at projected levels; no portion of proposed action would be implemented
4.1.3.2.1.3	Airspace, Makaha, en route airways/jet routes	(1)aircraft would be notified by NOTAMs to advise avoidance of the tracking radar area during program activities; the tracking radar area is likely to be contained within the restricted area R-3101 and the warning area W-188
4.1.3.4.1	Cultural, Makaha	(1)follow ICRMP when it is finished
4.1.3.5.1	Geology, Makaha	(1)keep construction projects temporary; implement best management practices to reduce soil erosion
4.1.3.6.1	Hazmat/waste, Makaha	(1)all hazmats/wastes would be handled/disposed of in accordance with PMRF, state, and federal regulations
4.1.3.7.1	Health/safety, Makaha	(1)survey site regularly for hazardous radiation, make sure warning lights on units operate properly; all hazmats/hazwastes are handled per state/federal regs; operations conducted per OSHA regs (2)personnel do not enter radar operation areas when facilities are in use; keep personnel outside of EMR exposure areas
4.1.3.8.1.1	Land Use, Makaha	(1)EMR generated by site radar units would not affect adjacent land uses (2)continuation of activities would be consistent to maximum practicable with Hawaii Coastal Zone Mgt Program
4.1.3.8.1.2	Recreation	(1)no other development is planned for this area
4.1.3.11.1	Utilities, Makaha	(1)continue installing new water well

Table L-2: Environmental Controls and Potential Mitigations for the No-action Alternative (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.1.3.12.1	Visual, Makaha	(1)no other development occurs along this section of NaPali Coast; no other development is planned
4.1.4.2.1.4	Airspace, Kokee, en route airways/jet routes	(1)aircraft would be notified by NOTAMs to advise avoidance of radar area during program activities; the tracking radar area is likely to be contained within the restricted area R-3101 and the warning area W-188
4.1.4.4.1	Cultural, Kokee	(1)no new activities at Kokee instrumentation support site would be implemented (2)follow ICRMP when it is completed
4.1.4.5.1	Geology, Kokee	(1)construction projects are temporary; base implements best management practices to reduce soil erosion
4.1.4.6.1	Hazmat/waste, Kokee	(1)continue to handle materials per PMRF and state/federal regs (2)continue to use pharmacy system at PMRF; continue shipping hazwaste generated at site directly for disposal
4.1.4.7.1	Health/Safety, Kokee	(1)continue surveying regularly for radiation hazards; make sure warning lights on units operate properly; public is not exposed to any unsafe EMR levels; all hazmats/wastes used/generated at site handled per state/federal regs; operations follow OSHA regs
4.1.4.8.1	Land Use, Kokee	(1)facility does not conflict with management of state park; use of Kokee is compatible with state conservation use district; EMR generated would not affect adjacent land uses (2)continuing activities would be consistent to maximum extent with HCZMP
4.1.4.8.1.1	Recreation	(1)no other development is planned for this area under the No Action alternative
4.1.4.11.1	Utilities, Kokee	(1)continue construction of new water well
4.1.4.12.1	Visual, Kokee	(1)no views of Waimea Canyon are obstructed by PMRF facilities; no other developments are planned that would further change visual environment
4.1.5.3.1	Cultural, Kamokala	(1)follow guides, mitigations in ICRMP plan when completed
4.1.5.4.1	Geology, Kamokala	(1)construction projects are temporary; base implements best management practices to reduce soil erosion
4.1.5.5.1	Hazmat/waste, Kamokala	(1)storage/transportation conducted per DOT, DOD, Navy procedures; no hazmats used at site, no hazwastes generated (2)no other ordnance or type of hazmats would be stored within Kamokala that would cumulatively add hazmats/wastes impacts
4.1.5.6.1	Health/safety, Kamokala	(1)existing uses around the magazine and within ESQD arcs are considered compatible; hazard from explosion from a mishap would be contained within the ESQD arcs
4.1.5.7.1.1	Land Use, Kamokala	(1)continuation of activities would be consistent to maximum extent with HCZMP; operation of site doesn't affect any rec opportunities, historic/prehistoric, or bio resources; site does not affect any prominent vistas and is isolated from public view
4.1.5.9.1	Visual, Kamokala	(1)no other development is planned for the area under the No Action alternative that would further change the visual environment
4.1.6.2.1	Hazmat/waste, Port Allen	(1)materials would be handled per PMRF plans (2)activities would follow PMRF procedures to reduce potential for spills
4.1.6.3.1	Health/safety, Port Allen	(1)transfer of torpedoes would continue per PMRF instruction 8020.7A; torpedoes are considered inert except for the fuel used to propel the system; torpedoes loaded at the site contain no ordnance and are fueled before delivery to Port Allen; torpedo fuel has a low volatility and is non-explosive (2)use/generation of hazmats/wastes would follow state/federal guides
4.1.6.4.1.1	Land Use, Port Allen	(1)state urban classification and county industrial zoning are compatible (2)continuation of activities would be consistent to maximum extent practicable with HCZMP; operation of site does not affect any rec opportunities, historic/prehistoric, or bio resources; site doesn't affect any prominent vista
4.1.6.4.1.2	Recreation	(1)continue to make sure use of Port Allen by Navy does not affect any recreational uses
4.1.6.8.1	Visual, Port Allen	(1)no development is planned as part of the No Action alternative that would further change the visual environment
4.2.1.3.1.1	Biological, Niihau, land-based training	(1)survey training exercise landing areas for seals and turtles before; consult with Niihau elders to avoid known turtle nesting areas; modify landing location if either species is present
4.2.1.4.1	Cultural, Niihau	(1)conduct section 106 consultation and review as part of EIS process (2)mitigations would be based on nature and extent of cultural resource materials identified; evaluations of cultural resources based on NRHP eligibility
4.2.1.6.1	Hazmat/waste, Niihau	(1)materials handled per PMRF plans (2)PMRF only brings hazmats onto island when required for maintenance (3)PMRF hazmat spill response team would be dispatched to site of any mishap to remove hazmat/waste (4)PMRF uses minimal amounts of hazmats/wastes on Niihau; PMRF does not leave any hazmats/wastes on the island

Table L-2: Environmental Controls and Potential Mitigations for the No-action Alternative (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.2.1.8.1.1	Land Use, Niihau	(1)use of Paniau radar and Perch sites and associated EMR safety zones are compatible with the undeveloped and grazing uses next to the site; site is compatible with state/county designations; training exercises are compatible with open undeveloped uses of the island; PMRF's lease on northern end of island allows for continued use by Niihau Ranch and does not affect existing open nature of current land uses
4.2.1.8.1.2	Recreation	(1)develop and follow a fire suppression plan
4.2.1.8.2	PA, Land Use, Niihau	(1)establishment of facilities under the PA would occur within the open grazing land on Niihau; construction of these facilities would not occur near the village (2)ESQDs would only include land used for grazing; livestock would be allowed to continue to graze within the ESQD arc; current land use activities would continue even during launch operations with the only restriction being to the island within the 381-m ESQD arc (3)GHA would be cleared for about 30 minutes prior to launch for up to 8 launches/year; residents would be warned of these closure times 1 week in advance of launch time (4)PA activities would be consistent to maximum extent practicable with the HCZMP; PA activities would only temporarily affect recreational opportunities for residents for up to 4 hours/year; development would alter the visual undeveloped nature of the island but represents less than 1% of the total island area (5)PMRF would consult with SHPO Hawaii prior to any ground-disturbing activities to avoid cultural resource impacts
4.2.1.8.2.1	Recreation	(1)grazing would be allowed to continue around facilities (2)PMRF could work with island residents to avoid conducting operations that would exclude residents from their fishing areas during the best time of day
4.2.1.9.1	Noise, Niihau	(1)overflights are discrete events, relatively few in number, and restricted as to the actual geographic locations in which they are allowed to occur; land-based training generates relatively low levels of noise in isolated areas
4.2.1.10.1	Socioecon, Niihau	(1)protection protocol in place between Navy and Niihau to ensure Niihau lifestyle, language, culture not adversely affected by Naval activities (2)protocol could be strengthened if necessary to maintain assurance of cultural protection for the island (3)continue review of protection protocol annually and make adjustments as necessary
4.2.1.13.1	Visual, Niihau	(1)aesthetic effects could be minimized by using earth-toned paint on all structures
4.2.2.2.1.1	Bio, Kaula, Gunnery Training	(1)use area seasonally when marine mammals are not present; survey waters off island to make sure marine mammals are not present; have impact area on south end of the island only
4.2.2.3.1	Cultural, Kaula	(1)keep gunnery practice confined to the southern tip of the island
4.2.2.4.1	Geology, Kaula	(1)continue to minimize impacts by managing the targeting to the distal southeast tip of the island
4.2.2.5.1	Health/safety, Kaula	(1)continue to use surface danger zone around the island and close island and surrounding tidal zone to unauthorized personnel; continue to use aircraft to fly over island to determine if safe to conduct mission before any gunnery operation
4.2.2.6.1.1	Land Use, Kaula	(1)open undeveloped use of the island is compatible with the Navy gunnery practice activities; use of a portion of the island for gunnery practice is compatible with the state conservation designation (2)continuation of activities under No Action alternative would be consistent to maximum extent practicable with the HCZMP; operation of site does not affect any recreational opportunities, historic/prehistoric resources; continue to consult with USFWS to minimize impacts to biological resources; public access to Kaula is restricted, so no visual resources are affected
4.2.2.6.1.2	Recreation	(1)continue to allow fishing within the danger zone on weekends; no other recreational opportunities affected
4.3.1.12.1	Visual, Tern	(1)no prominent public viewpoints are obstructed since access to the island is restricted; no development is planned as part of the No Action alternative that would further change the visual environment
4.3.2.12.1	Visual, Johnston	(1)no prominent public viewpoints are obstructed since island access is restricted
4.4	Ocean Area (outside US territory)	(1)exercises take place largely in the deep ocean environment with no known cultural resources; no potential for impacts to geology/soils (2)all activities associated with use of hazmats would be performed prior to putting to sea; no conflicts with land use plans, policies, and controls would exist with activities in the broad ocean area (3)waterborne transportation would not be impacted by ongoing activities; ocean area would be verified clear of any surface ships before exercises begin
4.4.1.1.1	Ocean Area, controlled/uncontrolled airspace	(1)no new special use airspace proposal or modification to the existing special use airspace is contemplated to accommodate continuing mission activities
4.4.1.1.2	Ocean Area, Airspace, Special Use Airspace	Continue to utilize the existing overwater special use airspace

Table L-2: Environmental Controls and Potential Mitigations for the No-action Alternative (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.4.1.1.3	Ocean Area Airspace, En Route Airways and Jet Routes	(1) Safety regulations dictate that hazardous operations would be suspended when it is know that any non-participating aircraft have entered any part of the Danger Zone until the non-participating entrant has left the area or a thorough check of the suspected area has been performed. (2) continuing activities would be in compliance with DOD Directive 5450.1, as directed by OPNAVINST 3770.4A. (3) Before conducting an operation that is hazardous to non-participating aircraft, NOTAMs would be sent in accordance with the conditions of the directive specified in OPNAVINST 3721.20. (4) continuing mission activities would continue to utilize the existing overwater special use airspace and would not require either (a) a change to an existing or planned IFR minimum flight altitude, a published or special instrument procedure, or an IFR departure procedure; or (b) a VFR operation to change from a regular flight course or altitude.
4.4.1.1.4	Ocean Area, Airspace, Airports and Airfields	the well defined special use airspace dimensions and scheduled time of use on aeronautical charts, in addition to the positive air traffic control by the Honolulu and Oakland ARTCCs, obviate the need for mitigation measures.
4.4.1.2	Bio, Ocean Area	Once ONR studies are completed, the Navy, in consultation with NMFS, will incorporate the results in relevant future NEPA analyses and documents as well as consider the potential for effects on ongoing activities.
4.4.1.2.1.1	Bio, Ocean Area, Missile Training Exercises, Launches of Target Drones and Missiles from Shore	(1) Upon completion of the exercise, recoverable drones are flown back toward PMRF/Main Base, where they land in the water for retrieval by a recovery vessel. (2) Drones are used under very controlled range clearance procedures to ensure that unauthorized vessels, aircraft, and marine mammals, particularly whales, are not present. This involves, at a minimum, a detailed radar and visual search of the range by recovery vessels and range controllers, supplemented by the passive hydrophone array. Range clearance includes air reconnaissance flown by helicopter or fixed wing aircraft when available.(3) No drones or missiles are fired until the range is clear. (4) All observers are in continuous communications and have capability to immediately stop the operations. (5) An exercise is immediately halted if the range is "fouled" by a whale or a vessel.
4.4.1.2.1.2	Bio, Ocean Area, Missile Training Exercises, Launches of Target Drones and Missiles from MATSS	Same as above.
4.4.1.2.1.3	Bio, Ocean Area, Missile Training Exercises, Live Missile Firings by Aircraft Versus Target Drones	(1) PMRF Range Clearance procedures are used to determine that no marine mammals, vessels, or aircraft are on the range and involve, at a minimum, a detailed visual search of the range from recovery vessels, and range controllers supplemented by reconnaissance flown by helicopter and fixed-wing aircraft when available. Targets and missiles are not fired until the range is determined clear, and an exercise is immediately halted if the range is "fouled" by a whale or a vessel. The aircraft, the target and all observers are in continuous communications and have the capability to immediately stop operations. (2) PMRF strictly controls weapons firings and does not permit an exercise to proceed until the range is declared clear after consideration of inputs from visual surveillance of the range from aircraft and range safety boats, radar data, acoustic information from a comprehensive system of sensors and surveillance from shore. The exercise can be modified as necessary to obtain a clear down range or it is canceled. (3) Many surface ships have electrically-enhanced optics that permit search and identification beyond normal visual ranges. Embarked helicopters are also frequently use to further examine the range to determine that no other surface craft or marine mammals are present. (4) Each surface ship has a safety observer who determines that the range is clear before and during the exercise and who can halt the exercise if whales are observed.
4.4.1.2.1.4	Bio, Ocean Area, Missile Training Exercises, Anti-Air Warfare Exercises	(1) Subsonic target drones are flown by remote control back to the waters near PMRF, runs out of fuel, glides onto the water, and floats until retrieved for reuse. (2) No missile firing is permitted until after it is determined that the range is clear.
4.4.1.2.2	Bio, Ocean Area, Air Operations Exercises	
4.4.1.2.2.1	Bio, Ocean Area, Air Operations Exercises, Air Combat Maneuvering	No mitigations required because no harm or effect is expected on marine mammals since maneuvering is at high altitudes.

Table L-2: Environmental Controls and Potential Mitigations for the No-action Alternative (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.4.1.2.3	Bio, Ocean Area, Gunnery Exercises	As part of the required clearance before a gunnery exercise, aircrews determine that the area to be gunned is clear, visually and with their sensors, whether at Kaula or far out to sea. The lack of an explosive charge, the required clearance, and conducting the majority of gunnery runs at either Kaula or the controlled ranges at PMRF keeps the risk to marine mammals very remote. Ordnance cannot be released until the range is determined clear and operations are immediately halted if the range is "fouled" by a whale, other marine mammals or a vessel.
4.4.1.2.4	Bio, Ocean Area, Bombing Exercises	As part of the required clearance before bombing, must determine that the area to be bombed is clear, visually and with their sensors. The lack of an explosive charge, the required clearance, and conducting the majority of bombing runs at the controlled ranges at PMRF keeps risk to marine mammals very remote.
4.4.1.2.5	Bio, Ocean Area, Mining Exercises	Weapons cannot be released until the range is determined clear. Operations are immediately halted if the range if "fouled" by a marine mammal or a vessel. Aerial mining exercises can be modified as necessary to obtain a clear range or it is canceled. Most aircraft weapons operations occur outside the 100-fathom isobath, within which the greatest concentration of marine mammals are observed.
4.4.1.2.6	Bio, Ocean Area, Electronic Warfare Exercises	Studies on potential impacts of Navy activities to marine species are underway. As these additional Navy studies are competed and consultation with the NMFS is developed, Navy activities at PMRF will comply with the results of the consultation process with NMFS.
4.4.1.2.7	Bio, Ocean Area, Undersea Warfare Exercises	Once the range is determined cleared in accordance with PMRF procedures, aircraft are permitted to engage the target.
4.4.1.2.8	Bio, Ocean Area, Submarine Operations Exercises	Low vessel speeds. Torpedoes fired under controlled circumstance to ensure that marine mammals are not present.
4.4.1.2.9	Bio, Ocean Area, Fleet Training Exercises	Avoid overflying marine mammals if detected. Special sea and anchors details posted to ensure adequate lookouts are in position and most experienced crews maneuver the ship until reaching the operating area or the open ocean.
4.4.1.2.10	Bio, Ocean Area, Testing and Evaluation Exercises	Follow current operating procedures.
4.4.1.3	Health/Safety, Ocean Area	Range Safety officials ensure operational safety; range is determined to be clear; operations conducted within the boundaries of the safety areas; Warning Areas continually monitored; specific safety plans developed for each hazardous operation; activities in compliance with DOD Directive 4540.1
4.4.1.4	Transportation, Ocean Area	(1)fleet training exercises not conducted in waters that coincide with the busiest shipping routes. (2)Notify commercial shipping prior to fleet training exercises. (3) overwater range is determined cleared before any operation is allowed to proceed. (4) Operation must obtain PMRF safety approval before proceeding. (5) Operations conducted within the boundaries of the safety areas. (6) Warning Area continually monitored during range operations to ensure that no unauthorized ships enter the area.
4.4.1.5	Water, Ocean Area	No mitigation measures proposed
4.5.1.1	Environmental Justice(EJ), Kauai, Air Quality	No change to the current attainment status and no health based air quality standards would be exceeded.
4.5.1.2	EJ, Kauai, Bio	Vegetation and wildlife are not expected to be affected by PMRF operations
4.5.1.3	EJ, Kauai, Cultural	PMRF will consult with the SHPO and Office of Hawaiian Affairs prior to any construction project
4.5.1.4	EJ, Kauai, Geology	Any spill that occurs would be quickly remediated to prevent any soil contamination
4.5.1.5	EJ, Kauai, Hazmat/hazwaste	All hazardous materials used and hazardous waste generated by PMRF on Kauai would be conducted in accordance with Federal and State regulations. Any hazardous materials that would result from an early flight termination would be cleared from the ground hazard area and any contamination would be remediated.
4.5.1.6	EJ, Kauai, Health and Safety	If materials transported on SH 50, PMRF would implement safety procedures to minimize the chance of a mishap and would quickly remediate the problem if one should occur. PMRF may bring hazardous materials directly into PMRF by either barge or aircraft depending on DOT requirements and sea conditions.

Table L-2: Environmental Controls and Potential Mitigations for the No-action Alternative (Continued)

SECTION NUMBER	SECTION TITLE	POTENTIAL MITIGATION
4.5.1.7	EJ, Kauai, Land Use	PMRF would continue to allow access to beaches except during hazardous operations. PMRF gives advance notification through a 24-hour hotline. Closure of the southern end of Polihale State Park would occur no more than 30 minutes per launch and no more than 30 times per year.
4.5.1.8	EJ, Kauai, Noise	(1)construction-related noise at various island sites would be temporary in nature and would only affect very limited area; none of noise levels outside of the GHA would exceed DOD/OSHA requirements; personnel within GHA would wear hearing protection (2)number of launches from southern PMRF would be infrequent with most occurring on the northern end of the island
4.5.1.11	EJ, Kauai, Water	(1)any spill that would occur would be quickly remediated to prevent any water contamination
4.5.2.2	EJ, Bio, Niihau	(1)provide fire equipment on the island during hazardous operations to minimize the potential for a catastrophic fire
4.5.2.3	EJ, Cultural, Niihau	(1)continue to consult Niihau elders on any PA issues involving traditional cultural values and beliefs
4.5.2.4	EJ, Geology, Niihau	(1)soil disturbance from construction would be temporary and would not result in any soil impacts; no significant changes to soil chemistry would occur as a result of missile launching activity; any mishap or spill of hazmats would be quickly remediated to prevent any soil contamination
4.5.2.5	EJ, Hazmat/waste, Niihau	(1)use/generation of hazmats/wastes would be conducted per state/federal regs; any spill of these materials would be quickly remediated; PMRF would keep proper spill containment devices on the island for the types of hazmats expected to be used; any hazmats resulting from early flight termination would be cleared from GHA and any contamination would be remediated
4.5.2.6	EJ, Health/safety, Niihau	(1)during all operations on the island PMRF would take every precaution to protect the island inhabitants and environment; during launch operations all personnel would be excluded from those areas where there would be the potential for hazardous debris from a missile mishap to fall; at no time would the village area on the island be included within the GHA or ESQD required for missile launch activities (2)EMR generated under both the NA and PA alternatives would have appropriate exclusion zones to eliminate health hazards to island residents
4.5.2.7	EJ, Land Use, Niihau	(1)PMRF activities are compatible with the open/grazing uses of the island; PMRF activities on Niihau would occur adjacent to compatible open/grazing land uses (2)none of the proposed activities would impact the village on Niihau (3)grazing would be allowed to continue within the GHA during launch activities; the remainder of the island would be available for fishing and gathering activities during launch activities
4.5.2.8	EJ, Noise, Niihau	(1)none of the noise levels outside the GHA would exceed DOD/OSHA safety requirements; personnel with the GHA would wear hearing protection
4.5.2.10	EJ, Visual, Niihau	(1)most of the new facilities would not be visible from the island village and would only block prominent vistas if island residents are in the vicinity of the facility
4.5.2.11	EJ, Water, Niihau	(1)any spill would be quickly remediated to prevent any water contamination
4.6	Conflicts with federal, regional, state/local land use plans/policies	(1)a determination of compatibility on the use of Tern will be made by the USFWS, which will be based on the intended purpose of the refuge and the activities planned for that site (2)PMRF would revise the current restrictive easement with the state of Hawaii for the continued use of lands for safety purposes adjacent to the facility for missile launching activities (3)PMRF would obtain a lease and restrictive easement for the construction and use of two new ordnance storage magazines on Kauai
4.7	Energy requirements and conservation potential	(1)PMRF would continue to implement energy conservation programs

Appendix M
Proposed Mitigations Based on U.S. Fish and Wildlife Service Analysis Provided in the Draft Environmental Assessment for the Proposed Tern Island Shore Protection Project

V. ENVIRONMENTAL CONSEQUENCES

A. No Action Alternative Consequences

The no-action alternative would leave the existing shoreline protection condition unchanged. No new shore protection structures will be constructed at Tern Island and the shoreline would remain vulnerable to storm wave damage.

1. Physical Environment

Continued corrosion and deterioration of the steel sheet pile bulkhead would permit accelerated erosion resulting in continued loss of fill material. The eventual alteration and reduction in the island's configuration and size is forecast. Exact final outcome is not known and can not be accurately predicted, in part, due to the artificial nature of the island's shape and presence of the dredged boat channel. It is feared that the eventual loss of the south sand beach, which provides important terrestrial habitat for green turtles, and monk seals, could occur.

The exposure of unknown quantities of debris buried within the island fill would increasingly expose the marine environment to entanglement and potentially toxic materials. Progressive erosion would eventually compromise the integrity of the runway making continued aircraft operations unsafe. The refuge buildings and support facilities would become increasingly at risk to damage from storm waves. The eventual loss of buildings would contribute to the debris problem if removal opportunities do not exist when the island must be abandoned. Continued hazardous and toxic material clean-up of French Frigate Shoals would become impaired with the loss of docking facilities.

There would be an expected increase in turbidity and siltation of nearshore waters as coralline fines are washed from the island.

2. Social Environment

Once aircraft support is unsafe, access would be limited to sea-going vessels. The Service could be forced to discontinue using Tern Island as a permanently staffed field station. The presence of a permanently staffed refuge administrative site located mid-way in the Northwestern Hawaiian Islands is very important to accomplishing Service mandates and objectives. Year-round monitoring of monk seal, green sea turtle, and seabird populations has been invaluable in identifying population trends and being able to react quickly to harmful situations to those populations. Research and educational opportunities would diminish as facilities are compromised. The loss of the station would diminish the Service's ability to monitor and control illegal entry in refuge waters.

Abandoning Tern Island would not imply total elimination of costs associated with activities that Tern Island currently supports. Land use directives and Service mandates would remain unchanged. The Service would need to fall back to some basic level of monitoring and research that would, at a minimum prevent extinction of threatened and endangered species, and permit administration of Refuge lands. These costs have not been calculated as many unknown circumstances exist: the time of actual abandonment, the extent of debris contamination and remediation, and the status of threatened and endangered species recovery efforts. However, if charter vessels and extended field camps were used to provide the minimum level of research and monitoring required to achieve refuge objectives, the costs for transportation and supply would take a larger portion of the funds available for wildlife management. Decisions on how to handle deteriorating sheet pile and related issues would be made on a case-by-case basis as problems arise.

Aesthetic impacts of the deteriorating island and facilities within the refuge would be visually negative and not project an image of concern or proper stewardship of the environment.

3. Biological Environment

Reef habitat could be negatively affected by siltation and debris contaminants with undeterminable effects upon benthic communities. The potential impacts of this consequence are difficult to determine without knowledge of what is buried in the island or the future rate of erosion. The information that would be required to assess this consequence is not available or readily attainable. The event of a major winter storm, hurricane, or tsunami and resultant dramatic erosion of shoreline would immensely influence the extent of this consequence.

The loss of existing island habitat would be the inevitable outcome of this alternative. The terrestrial habitat provided by Tern Island has become increasingly important as evidenced by increased monk seal use, and green turtle and seabird nesting. The extent species can compensate for the loss of Tern Island habitat by movement to other islands is unknown. Tern Island presently represents approximately half of the emergent land mass and nearly all of the shrub habitat found in French Frigate Shoals, so the terrestrial habitat loss would be significant.

No threatened or endangered plant species are known to occur on Tern Island so the consequences of vegetation losses would be important primarily as components of wildlife habitat. There have been significant losses of vegetation on the other islets within the shoals as evidenced by photos taken in the 1960's (Amerson 1971). East, Whale-Skate, and Trig Islands all supported dense vegetation cover providing nesting structure for shrub and cover nesting seabirds. The loss of this vegetation has probably been a

product of island inundation by storm waves, periodic drought conditions, disturbance by nesting turtles, and possibly other unknown factors. Suitable displacement habitat for shrub nesting seabirds does not exist, within French Frigate Shoals, if the loss of Tern Island habitat occurred. Significant local impacts to those seabird nesting populations would occur. Monk seals also use the vegetation as resting cover.

The known presence of Service personnel serves as a deterrent to illegal entry into the refuge and reduces the likelihood of exotic plant or animal introductions, disturbance of breeding monk seals, and poaching of green turtles and seabirds. The introduction of alien species could have severe consequences for these fragile insular ecosystems. Vermin transported in ships and released onto islands either by ship wrecks or intentional landings have been the primary source of infestations on remote islands throughout the world. Ship groundings pose further hazards associated with the release of fuel or other toxic chemicals into the marine environment.

4. Threatened and Endangered Species

The argument can be made that reduced human activity within the shoals resulting from abandonment of the Tern Island station would have beneficial effects on fish and wildlife populations. This is evidenced by the dramatic increase in use of Tern Island by monk seals and repopulation of nesting green turtles and seabirds since the Coast Guard left in 1979 (table 3 and 5). It can only be speculated whether this repopulation would have been even greater without the Service presence. Management actions and research studies designed to assist in recovery of listed species or to maintain populations of other species are, in themselves potentially disturbing to wildlife and habitat. The fact that these Tern Island wildlife population increases did occur with the presence of Service personnel and research activities lends credence to the effectiveness of Service actions to minimize disturbance.

The impacts to monk seals and green sea turtles by the actual physical loss of all or some of the habitat provided by Tern Island is not known. Both species have exhibited some ability to relocate to other nearby habitats. This is evident by the immediate increase in animals using Tern Island once the disruptive effects of the presence of the Coast Guard were removed. Tern Island is principally used as a haul-out site for monk seals although the incidence of births has been increasing. Green turtles exhibit a high degree of site fidelity but individuals have been documented moving between and nesting on more than one French Frigate Shoals island. The population of green turtles appears to be responding to protection and recovery efforts and is stable or slightly increasing. The situation with monk seal populations is more precarious. Losses to the

population throughout the Northwestern Hawaiian Islands, since 1990, point to the increased need for close monitoring and rescue intervention. The importance of the Tern Island field station becomes more critical as populations decline.

Support provided by Tern Island facilities and staff to recovery efforts for green sea turtles and monk seals could end prior to the accomplishment of recovery tasks dependent upon this station. Ongoing monk seal recovery efforts, such as airlifting emaciated monk seal pups from French Frigate Shoals to other sites for rehabilitation and subsequent release, would end with the loss of the runway. The extent of this rescue effort can be seen in table 12.

Table 12

Monk Seal Pups Removed From French Frigate Shoals
Tern Island 1984 - 1993

1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
3	2	6	0	8	3	12	6	24	18

(from NMFS summary reports for USFWS Special Use Permits)

Significant impacts to recovery efforts for these species could result from the loss of the field facilities and ability to conveniently and economically conduct research, monitoring, and recovery efforts. The need for these recovery efforts would continue and may necessitate the establishment of a field camp on one of the other French Frigate Shoals islets. It is believed that this would create greater disruption to monk seals than the current situation with the permanent field station at Tern Island (Ragen 1994).

Entrapment and injury hazards for wildlife resulting from the degradation of the island would continue to occur. The presence of Service personnel would be required to release entrapped green turtles and monk seals until the hazards are eliminated or recovery efforts are determined to be successful enough that the populations can accept the entrapment losses under this alternative. A situation could develop where Service personnel are no longer able to occupy Tern Island full time to rescue these animals. Since these are federal lands and this action is that of a federal agency, a "take" situation of threatened and endangered species could result, adversely impacting the populations.

The importance of the island habitat as a bristle-thighed curlew wintering and over-summering grounds is not well understood. The birds are present in small numbers and probably move the short distances between islands within the atoll. Occasional movements between Northwestern Hawaiian Islands have been documented for third-year over-summering birds and during initial autumn migration periods as birds locate their preferred wintering grounds (Marks 1991). However, adult bristle-thighed curlews are known to exhibit site fidelity to wintering grounds and may not displace beyond French Frigate Shoals.

Vegetated island interiors are the preferred wintering habitat where bristle-thighed curlews forage for invertebrates. Adequate information does not exist to assess impacts, related to this alternative, to invertebrate populations which provide food sources for curlews. Tern Island supports the majority of the vegetated habitat in French Frigate Shoals. Other historically vegetated islets (Trig, East, Whale-Skate), currently support far less vegetation than was present 10 to 20 years ago. The predicted reduction in island size with this alternative would be expected to reduce the available wintering habitat and potential carrying capacity. Population limiting factors are not known for these wintering grounds, therefore, it is not possible to quantify all impacts to bristle-thighed curlews related to this alternative. Obviously, any pollution of the marine environment would be adverse and could contribute to further population declines.

Vegetational losses associated with this alternative would also reduce available habitat for the French Frigate Shoals seed bug. The population dynamics of the seed bug on other islets within the shoals is not known, however, it is logical to assume that as vegetational cover became reduced on these other islets that available habitat and probably populations also declined. Sufficient information is not known or readily available to be able to adequately assess impacts this alternative would have on French Frigate Shoals seed bug population viability.

It is determined that implementing the No Action alternative would result in a loss of important terrestrial habitat for green turtles and seabirds and the loss of designated critical habitat for monk seals. This loss of vegetated habitat could also have a negative impact upon resident populations of bristle-thighed curlews and the French Frigate Shoals seed bug. An increased occurrence of entrapment hazards for these species, with the likelihood that personnel would not be permanently on the island to rescue the animals, would occur. The ability for the Service to deter illegal entry into the refuge would diminish, with potential for increased pollution of the marine environment from ship groundings. The risk of exotic species introductions resulting in habitat modifications would increase. The likelihood for direct and indirect take of threatened, endangered, candidate

species and seabirds would increase when it is no longer possible for the Service to occupy Tern Island. Based on this analysis it is concluded that implementation of the No Action alternative could have an adverse impact upon the viability of present threatened, endangered and candidate species or their critical habitats.

B. Proposed Action Alternative Consequences

The proposed action is to replace portions of the deteriorated steel sheet pile with either a rock revetment or a concrete-capped steel sheet pile dock. This was determined, by the Corps Study, to provide the most effective, most environmentally sound and least costly shore protection measure while most closely meeting established planning objectives. Primary results of this action would be to protect the marine environment from exposure to hazardous and potentially toxic debris associated with past human activities on Tern Island and to protect important existing terrestrial habitat. The option for the Service to maintain a full-time field station on the island would be retained.

1. Physical Environment

Long-term effects, under this alternative, would result from placement of structures which displace existing reef flat habitat and substitute it with other materials. The spaces between the structures would create an artificial reef and the rock used in the sloping revetment would provide a site conducive to colonization by invertebrates. Negative consequences are not foreseen as a result of this artificial reef creation, although some increased risk for ciguatera blooms may result, with unknown impacts upon resident wildlife. The existing reef flat, that would be covered by the revetment, has been substantially impacted by past dredging and bulkhead construction. Constructing an artificial rock reef should create a more natural environment than the existing highly reflective vertical bulkhead.

Shoreline structures can influence water quality by altering circulation patterns. Modification in circulation can result in differences in the flushing rates, and changes in scour patterns and deposition of sediments. The proposed structure would closely adhere to the alignment of the existing steel sheet pile to minimize changes in existing circulation patterns. The reduced scouring effect of waves, on the uneven surface of the rock revetment compared to the vertical bulkhead, should contribute to the accretion of sand along the revetment. The Corps Study did not find that this would result in appreciable losses of sand from the south beach area. The elimination of the north shore groin and extension of rock revetment through this area could result in the loss or alteration of Crab and Shell beaches.

Some short-term degradation of water quality, with increased turbidity and suspended solids, would occur due to excavation and dredging efforts associated with the project. This would have some effect on the immediate benthic community but is not foreseen to be long lasting or significant. These impacts would be localized at the point of active construction and mitigated in the following manner: work shall be contractually controlled to progress in segments; with each segment being substantially completed and protected before work on the next segment is allowed. This would ensure that extensive lengths of shoreline are not exposed to wave action an inordinate amount of time. There is some concern that this dredging and construction activity in nearshore waters may increase the likelihood of a ciguatera bloom, but conclusive evidence supporting this concern or impacts to wildlife populations is not available. Monitoring for ciguatera before, during, and after construction activities would be conducted. These mitigation measures are expected to reduce negative impacts caused by construction related turbidity. The completed structure would prevent continued erosion of the island fill and resultant loss of water quality.

Some short-term degradation of air quality would occur during construction attributed to construction equipment exhaust and airborne dust generated by vehicles and aircraft used in support of this project. Localized severe noise and vibration impacts would occur during pile driving operations to construct the 425 feet of sheet pile dock.

Temporary physical alteration of the environment would occur due to the presence of the construction crew and actual construction. Some additional facilities are expected to be required by the contractor. The location of these facilities would be determined by the Service. The construction contractor would need to provide adequate fresh water supplies for their workers. Surface disruption of soil and coralline fill would be necessary during transport of materials and construction activities. Excavation for the bulkhead anchorwall and revetment underlayment would be necessary. All disturbed sites would be restored to design grades as work progresses.

2. Social Environment

Visually, Tern Island appears to be an artificial island within the shoals and resembles a large aircraft carrier. Nevertheless, development of this alternative considered the visual impacts of shoreline armoring. The use of natural rock, rather than concrete tribar, was considered to be less obtrusive visually. In addition, protecting the buildings from degradation, until such time that they can be properly removed, would contribute positively to the visual aesthetics. Preventing further erosion and suspended solids in nearshore waters would also be a visually positive consequence of this action.

The number of persons required to construct the project is estimated at 12 people. This increase (more than doubling) in the human population of the island would have some impacts upon the social environment of the island for all occupants and visitors. The extreme isolation of the site, restricted use areas, and duration of this project (15+ months) would require that recreational activity be provided and consumption of alcoholic beverages strictly controlled within refuge boundaries. The contractor's activities can be regulated with construction contract provisions and through the authority of the Service Special-Use Permit that the contractor would be required to acquire and adhere to. Existing field station rules and regulations imposed upon Service employees and visitors would continue to be enforced. A typical example of Special-Use Permit restrictions is shown in appendix A. Briefing of construction workers on the wildlife values of the island and restricted zones would occur prior to their arrival on Tern Island.

Construction staff salaries would contribute to the Hawaiian economy and state tax base. The estimated cost of the project in 1995 dollars is approximately 10 million dollars. Additional work added and an estimated 1996-1997 construction period would increase this total cost estimate. Supplies and materials would be sourced and operations based from the main islands. Transportation of workers and materials from Hawaii to Tern Island would provide employment for ship transport and flight service operations.

Refuge management cost implications are more difficult to ascertain. The contribution to the economy of funds spent on research through the purchase of supplies, hiring of personnel, and contracting of vessels and aircraft would continue. Service maintenance needs would be reduced with implementation of this project. Once the shore protection measures are complete the need to closely monitor for entrapped animals would cease. Continued attempts at remedial stop-gap erosion protection measures would not be necessary. Debris would be contained and future efforts can be made to identify and clean-up problem areas. The rock revetment would have a longer design life than the existing steel sheet pile and would not require periodic maintenance. The revetment would eventually be able to be abandoned in place without the severe consequences presented with the existing structure.

3. Biological Environment

Subsurface geotechnical investigations would be required along the Tern Island shoreline to provide information necessary for the Corps to finalize the design of the shore protection structure. Bore samples would be taken by the Corps to determine reef structural characteristics. The work would consist of drilling bore holes for core sampling and topographic and

bathymetric surveys. This work will occur in the summer or fall of 1994 and will result in the potential for some minor disturbance of wildlife species. The Corps is responsible for consulting with the Service and National Marine Fisheries Service to coordinate and minimize any impacts to resident wildlife. These impacts are foreseen to be relatively inconsequential and easily mitigated.

Long-term positive effects, to the marine environment, would result with the implementation of this alternative. The rock used in the sloping revetment would provide a site conducive to colonization by invertebrates. Reef corals tend to be among the slowest of recolonizers. Spaces created by the structures create an artificial reef that may attract large numbers of fish which find the vertical relief a change from the uniformity of the reef flat. Species from marine bottom communities in high-energy areas are adapted to periodic changes in natural erosion and accretion cycles and tolerate agitation better than those in more stable offshore environments. The productivity of the reef flat is not expected to be compromised by placement of shoreline armoring and would probably be enhanced. Any increase in reef fish populations would contribute positively to available prey species and food sources for monk seals and seabirds.

No significant impacts to cetaceans is anticipated. Some minor disturbance to these marine mammals may result as a consequence of the increased tug and barge traffic, to and from French Frigate Shoals. However, suitable ocean habitat exists, for these animals to displace to. French Frigate Shoals is not known to provide any significant habitat component for any of these species and any physical habitat changes, as a result of this alternative, will be relatively insignificant.

The disadvantage of any structural plan which replaces the proposed length of sheet pile wall is that it is too difficult to construct within the brief time frame determined to be least disruptive to wildlife. Since lights have been found to disorient seabirds and green turtle hatchlings, all work would be conducted during daylight hours and all exterior lighting must be minimized at camp facilities and on marine vessels. This means that if disturbance is to be minimized, the contractor would either have to work multiple crews thus taxing the space, water and waste resources of the island or remobilize every year until the project is completed in order to work within a preferred biological window.

The Interagency Working Group determined that the least long-term impact to the wildlife of Tern Island would occur if the contractor mobilized once and continued work until completed. It was felt that the disruption of one breeding cycle for the long-lived seabirds would be less of an impact than disrupting the animals at a lesser level over several seasons. Disruptive

impacts to monk seals and green turtles spread over a several year period would have a greater probability of inducing long-term behavioral shifts in patterns of use. The Corps Study determined that the recommended alternative would require 15 months to complete. Additional work has been added to the Corps Study recommended action so it is reasonable to assume some additional time would also be required unless the contractor uses a larger crew. It has not yet been determined by the Corps what impact the increased revetment length, ingress barrier, small boat dock facility, and dredging for backfill material would have on the completion time for the project.

The potential for temporary disturbance of wildlife during the construction period is seen as the most adverse consequence of implementing this alternative. As construction activity progresses, measures would be taken to prepare successive construction areas to reduce impacts on wildlife. The construction progression shall be regulated contractually. Project activities shall be broken into segments based upon construction type, location, and wildlife species sensitivity timing (figure 13). A project segment would be completed before construction is allowed on the next segment. This would eliminate recurring wildlife disturbance and allow vegetation reclamation efforts and wildlife use to begin on completed segments.

The least disruptive time frame to island wildlife begins in mid-August and extends into early November when the albatross begin to arrive and start nesting. Most green turtle nesting is completed by this time and fewer adults would be present in the shoals. Monk seal pupping would generally be completed. The contractor would be scheduled to mobilize and begin construction of the steel sheet pile dock face at this time. The noise and vibration created by the pile driving activity should be completed during this period of relatively low wildlife activity. The ship docking facility would be completed first so that it may be used by the contractor for offloading materials and onloading debris to be disposed of at approved facilities on the main Hawaiian islands.

Construction activity would proceed counter clockwise around the island. The rock revetment would be placed on the southwest and southeast ends of the island during the non-critical winter use periods for green turtles and monk seals. Construction in these segments would be completed by April, when green turtles show up to nest and monk seal pupping begins. This construction timing would not require any construction activity along the northern shoreline during the stormy winter months. This would reduce hazards for workers and the likelihood of further damage to the environment or facilities due to high wave action on exposed island fill at construction sites.

Construction of the revetment would continue westerly along the north shore through segments 4, 5, & 6 so that all earthwork is completed before the next winter storm season. As work progresses down the north shoreline, completed segments would generally be upwind of remaining construction and noise, dust, and smoke disturbance to wildlife recolonizing completed segments would be minimized. Some additional time may be necessary to complete minor details on the large and small boat docks, tide gauges, and for demobilization but the island perimeter would be protected within this timeframe.

A primary consequence of this alternative would be to preserve and enhance the available terrestrial habitat on Tern Island. Some loss of island vegetation during construction is expected. At a minimum, vegetation along the existing bulkhead, inland to the extent of backfilling, and along construction equipment access ways, would be impacted. This vegetation would either be buried by backfill material or removed in attempts to discourage seabird nesting prior to construction activities along that segment. In much of the north shore area this would be approximately 50 feet inland from the existing sheet pile and would impact a total area of 3 to 4 acres. Few large shrubs would be affected by this clearing as most of the area to be disturbed is recently eroded, or subjected to salt spray, which has prevented the formation of a shrub component,

Vegetation would be able to more successfully survive on the newly elevated land due to reduced wave overtopping and exposure to sea spray. Shrub habitat takes several years to return to existing conditions whereas open habitat plants grow back more quickly. Restoration of the impacted areas can be expedited by transplanting some plants from other locations on the island. These efforts should be designed to serve as the nucleus for revegetation and not be considered complete restoration, due to the lack of fresh water available for nurturing plants. Some seabird species that are dependant upon large shrubs for nesting and roosting habitat could be negatively impacted but no populations would be significantly harmed. The temporary loss of some vegetation is determined to be acceptable given that the beneficial consequence of this action is that nesting habitat for these bird populations would be protected for a minimum of 25 years.

The site prep work would include attempts to discourage seabird nesting in work areas. This would require the removal of vegetation and, if necessary, the placement of ground covers such as Typar or other woven fabrics, removal of eggs and nests, and harassment. The objective is to discourage adult birds from nesting in these locations, and to relocate to other sites on the island where they would have some chance of success. It is accepted that there would be some loss of production by individual birds, during the year of construction, due to these

actions. No seabird species depends on Tern Island to provide critical worldwide nesting habitat (table 3). Given the fact that these are long-lived species and that no adults should be harmed, the populations, including those at French Frigate Shoals, should be able to absorb the losses and lowered reproductive success for one year.

Transportation of materials to the site and stockpiling of construction materials would temporarily encroach upon seabird nesting habitat. Disturbance of terrestrial habitat can be minimized if material is transported, stockpiled, and placed from barges as much as practicable. Timely transportation of materials, closely coordinated with construction progress, would minimize the use of land area for stockpiled materials and reduce the on island vehicular traffic required to transport materials. These construction practices would minimize noise, smoke and dust generation, and reduce wildlife disturbance. Necessary access routes, to transport materials on land, shall be designated by the Service and cleared of vegetation and nesting birds.

All construction materials, rock, and equipment should be free of organic material and soil to prevent the accidental introduction of exotic organisms. Efforts would be made to ensure that ships, barges, and living quarters transported to Tern Island are free of rats, insects, plant seeds and sprouts, and other vermin. This would be accomplished by thorough cleaning of equipment, fumigation of structures, the placement of rodenticides on ships and barges, and inspections, prior to landing at Tern Island.

4. Threatened and Endangered Species

The proposed action to eliminate the groin on the north shore would possibly eliminate Crab and Shell beaches which have been retained as a result of the groin's local alteration of littoral drift. The future existence of these beaches cannot be guaranteed. These beaches are used as haul-out sites by monk seals. The revetment, at a 2' horizontal to 1' vertical slope, would be accessible to monk seals for haul-out providing a net gain in haul-out area. These beaches are seldom successfully used for nesting by green sea turtles. However, a loss of basking area on the island would be the result of losing these beaches. The revetment slope and rough surface are not anticipated to contribute suitable basking habitat for green turtles. The Interagency Working Group felt that the potential loss of Crab and Shell beaches was a reasonable trade-off to ensure protection of the island and would not have a significant impact on either species.

The interstices created by a carefully placed rock revetment of 900 to 1500 lb. armor stones would measure approximately 6 to 8 inches in diameter. Green sea turtle hatchlings, from nests located above the revetment, would probably become entrapped in

these interstices when moving from nest to sea. A suitable ingress barrier shall be incorporated in the revetment design to prevent island access and nesting inland of the revetment. Present use of the north shore for turtle nesting is minor and a result of the dilapidated bulkhead allowing ingress to the island. The exclusion of turtle nesting there is not seen to be significant to the population as it is felt that the animals would search out suitable areas elsewhere and not result in a loss of production. Permanent barriers would need to be installed inland from the terminus of the southwest and southeast revetments to prevent green turtles from gaining access to nesting sites above the revetment. This would eliminate some traditional nesting area along the south beach. Sufficient nesting habitat currently exists in the immediate area to accommodate displaced turtles. Some loss of habitat is accepted to ensure protection of the remaining habitat and reduce entrapment and injury hazards.

Foraging green sea turtles in the boat channel and along the bulkhead would most likely be impacted by work in the waters along the north and west sides of the island. These impacts should be primarily due to disturbance and displacement. Work sites would be monitored for the presence of green turtles and construction activities modified or temporarily halted if any animals enter the area and are at risk of injury. Algae growing on the existing bulkhead contributes some feeding opportunities for sub-adult green turtles. The National Marine Fisheries Service recommends that a survey of the algal species growing along the bulkhead and the numbers of green turtles using the dredged boat channel be undertaken prior to construction. Some additional disturbance of green turtles present during dredging operations could occur and cause temporary displacement.

The steel sheet pile driving operations for the dock face would create severe local noise and vibration. This disturbance is unavoidable and can be best minimized by conducting the activity during the least critical time period for the wildlife using the area. This has been determined to be mid-August through mid-December for most species. Under this alternative, construction mobilization and sheet pile driving operations would be contractually directed to occur within this time frame. This activity would coincide with some green turtle hatching, but since the hatchlings only emerge at night and construction work at night would not be allowed, impacts should be minimal.

The increase in activity and noise could create some temporary disturbance for monk seals. Allowing construction activities on only one segment at a time should provide ample opportunity for monk seals to displace to other locations to avoid disturbance. Some especially sensitive monk seals may temporarily abandon Tern Island for other islands in the shoals during the construction period. Important haul-out areas along the south beach would be

off limits to the contractor except for the actual construction of segments of revetment along the eastern and western ends of that beach.

The incorporation of an ingress barrier into the revetment would prevent the monk seals from gaining access to the island along the revetment. The objective is to prevent monk seals from getting onto the runway surface and creating hazards for themselves and aircraft. If a suitable ingress barrier can not be designed for monk seals then the runway boundary should be fenced or barricaded to exclude monk seals which would have increased access to the island and runway. Egress from the island by adult green turtles and monk seals would always be possible along the revetment length. Curious monk seals are likely to enter areas under construction. The contractor is to install temporary fences to exclude these seals if this becomes a problem.

In coral reef ecosystems, blooms of the toxic dinofagellate, Gambierdiscus toxicus sporadically appear as toxic planktonic "red tides." This dinoflagellate synthesizes toxins which are apparently accumulated through the food web into many species of tropical and subtropical fish and mollusks, resulting in occasional "ciguatera fish outbreaks" harmful to humans that eat these fishes (Withers 1983). Ciguatera poisoning has been a concern ever since it was suspected to be linked to the deaths of monk seals at Laysan Island in 1978 (Gilmartin, et. al. 1980). Data proving the link was inconclusive but the concern warrants caution and close monitoring. Although no conclusive evidence exists to link marine construction activities to increased ciguatera blooms, anecdotal information suggests the possibility.

To better understand the normal ciguatera cycle, both the level of Gambierdiscus toxicus and the percentage of select fish, including eels, containing elevated levels of ciguatoxin should be monitored before, during and after construction of the shore protection structures and monitoring should be initiated as much as a year in advance of construction. A final sample should be taken approximately 6 months after completion of the project. The purpose for this monitoring is to increase knowledge of the effects of marine construction projects upon ciguatera outbreaks and to be able to quickly react to an outbreak with increased monitoring and possible medical treatment of affected monk seals.

Bristle-thighed curlews should benefit from the protection of terrestrial habitat afforded by the proposed alternative. Important vegetated habitat would only be disturbed in the immediate construction areas. The minor disruption created by construction activities is seen to have minimal impacts upon the birds. As work progresses in segments, sufficient habitat and seclusion opportunities should exist at all times to meet foreseen habitat requirements of the few birds present on Tern Island.

Impacts upon the French Frigate Shoals seed bug, under this alternative, cannot be conclusively determined because so little information is available on the ecology of this insect. Interspecific competition with the recently discovered, non-endemic, plant bug may be imposing stresses upon the population through competition for available preferred habitat. Obviously, any action that would ensure the long term viability of the island vegetation would be beneficial for seed bug populations. Activities associated with this project would affect approximately 3 acres of vegetated land area for short periods of time. This insect has evolved on these low islets which undergo periodic inundation and loss of vegetation. This temporary disturbance of habitat should not adversely impact the viability of this species.

It is determined that the proposed alternative could have some temporary negative impacts, primarily related to disturbance of threatened and endangered species. Some loss of available nesting and basking habitat for green turtles would result. These losses are expected to be less than if the No Action alternative is selected and loss of island habitat continued. Monk seal habitat will not be significantly altered and may be enhanced through the addition of new haul-out areas along the rock revetment slope and the potential for increased food fish productivity. All above stated mitigation measures, designed to minimize species disturbance, shall be incorporated into the construction contract and Special Use Permit. Under this alternative, terrestrial habitat would be preserved, the marine environment would be protected, and research and recovery efforts could continue, contributing to the survival of threatened and endangered species.

Based on this analysis, it is concluded that proceeding with activities associated with this proposed alternative would not jeopardize Hawaiian monk seal, Hawaiian green sea turtle, bristle-thighed curlew, or French Frigate Shoals seed bug populations nor adversely modify their critical habitats, if all mitigation measures and contract provisions are implemented and monitored.

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Appendix N
Memorandum of Agreement Between the United States Department of the Navy, Pacific Missile Range Facility and the Hawaii State Historic Preservation Officer

MEMORANDUM OF AGREEMENT BETWEEN THE UNITED STATES DEPARTMENT OF THE NAVY, PACIFIC MISSILE RANGE FACILITY AND THE HAWAII STATE HISTORIC PRESERVATION OFFICER SUBMITTED TO THE ADVISORY COUNCIL ON HISTORIC PRESERVATION REGARDING ACTIVITIES PROPOSED WITHIN THE PACIFIC MISSILE RANGE FACILITY ENHANCED CAPABILITY ENVIRONMENTAL IMPACT STATEMENT, BARKING SANDS, KAUAI, HAWAII PURSUANT TO 36 CODE OF FEDERAL REGULATIONS 800.6(a)

November 1998

WHEREAS, the United States (U.S.) Department of the Navy, under Section 106 of the National Historic Preservation Act, is responsible for taking into account the effects of its undertakings on properties included in, or eligible for listing in, the National Register of Historic Places (National Register), herein after referred to as historic properties, and, prior to approval of an undertaking, to afford the Advisory Council on Historic Preservation (Council) an opportunity to comment on the undertaking; and

WHEREAS, the Navy has conducted records searches and field investigations to determine if historic properties are present within the area of potential effects proposed by the undertaking, also known as activities proposed within the Pacific Missile Range Facility (PMRF) Enhanced Capability Environmental Impact Statement (EIS), and determined that the following areas are devoid of them and require no further study: areas A, B, Q, E, F, G, and J on the Island of Niihau, and the entirety of Kaula Island, PMRF site Makaha Ridge, and PMRF site Kokee, which are shown on Attachments A and B of this Memorandum of Agreement; and

WHEREAS, the Navy has conducted environmental impact analysis of the proposed undertaking and found the potential for adverse effects to occur to historic properties within the areas defined in Stipulations I and II and shown on Attachments A, C, and D of this Memorandum of Agreement; and

WHEREAS, the Navy is responsible for ensuring that any mitigation measures developed for the protection of identified historic properties and set forth during the environmental impact analysis process are carried out; and

WHEREAS, interested agencies and members of the public, including the Hawaii State Historic Preservation Officer (Hawaii SHPO), potentially affected Native Hawaiian organizations, and affected land owners, have been provided the opportunity to comment

on the possible effects that this undertaking may have on historic properties at the locations defined in Stipulations I and II and shown on Attachments A through D, through public hearings, consultation meetings, or other means; and

WHEREAS, the PMRF restrictive easement (ground hazard area) associated with the undertaking, as well as any activities therein, remains unchanged and previous consultation has determined that there is no effect on historic properties from on-going activities (Attachment E); and

WHEREAS, the Navy has prepared a Cultural Resources Management Plan (CRMP) (Attachment F); for the entirety of the installation and associated remote locations under its jurisdiction, in accordance with the Environmental and Natural Resources Program Manual, (OPNAVINST 5090.1B), and appropriate elements of the CRMP have been incorporated into this Memorandum of Agreement; and

WHEREAS, the PMRF and the Niihau Ranch have an established protocol for the use of Niihau Island facilities and helicopter services (Attachment G), which takes into account potential effects on historic properties from Navy activities and outlines mitigation measures for historical and cultural resources protection and preservation; and

WHEREAS, the Navy, in consultation with the Hawaii SHPO, has agreed that, unless the Hawaii SHPO later determines no such survey is necessary, proposed activities will not begin on the island of Niihau prior to: (a) completion of a limited ethnographic survey, subject to the landowner's concurrence, of proposed activity locations on the island, in order to identify any traditional cultural properties that may be eligible for inclusion in the National Register; and (b) the implementation, in accordance with Attachment G, of any mitigation measures required to protect historic properties on the island of Niihau; and

WHEREAS, the Navy and the Hawaii SHPO agree that because of their nature, the Navy exercises described in Attachment H have no effect on historic properties and, therefore, these types of exercises require no further consultation; and

WHEREAS, pursuant to Section 101(d)(6)(B) of the National Historic Preservation Act and 43 CFR 10, regulations implementing Section 3 of the Native American Graves Protection and Repatriation Act (25 U. S. C. 3002(a)(2)(B)), Na Ohana Papa O Mana, the closest culturally affiliated Native Hawaiian Organization with respect to undertakings at PMRF Main Base or the Kamokala Magazines, participated in the consultation and has been invited to concur in this Memorandum of Agreement; and

WHEREAS, the Kauai/Niihau Island Burial Council, the Hui Malama I Na Kupuna O Hawaii Nei, and the Office of Hawaiian Affairs, have participated in the consultation and have reviewed the Navy's determination that Na Ohana Papa O Mana is the closest culturally affiliated Native Hawaiian Organization; and

WHEREAS, the acronyms, abbreviations, and definitions given in Attachment I are applicable throughout this Memorandum of Agreement and its attachments;

NOW THEREFORE, the Navy and the Hawaii SHPO agree that the proposed undertaking shall be implemented in accordance with the following stipulations in order to take into account the effect of the undertaking on historic properties.

STIPULATIONS

I. Pacific Missile Range Facility, Main Base

Potential effects on historic properties within, or in the vicinity of, PMRF Main Base locations (Attachment C) from facility construction (including ground clearing and subsurface excavation), instrument siting, operational activities (including amphibious, RIMPAC, and National Guard activities), a launch pad mishap, an accidental launch vehicle ground strike, construction or launch vibration, ignition of vegetation from missile exhaust or debris and subsequent fire suppression activities, and/or increased personnel or off-road traffic within, or in the vicinity of, proposed locations, shall be mitigated in the following manner:

A. Avoidance of known sensitive areas, as practicable;
B. When avoidance is not possible, monitoring of all ground disturbing activities within known sensitive areas, in a manner consistent with the proposed Draft Archaeological Monitoring Plan provided in Attachment J of this Memorandum of Agreement;
C. Survey by a professional archaeologist, qualified by standards established by the Department of the Interior, National Park Service and described in 36 Code of Federal Regulations (CFR), Part 61, Appendix A, of potential construction areas and relocation of those areas, as practicable, prior to any construction or exercises to ensure the avoidance of sensitive areas, particularly in the Major's Bay and Nohili Dune and Nohili ditch areas;
D. Spraying of water on vegetation surrounding launch sites prior to launches to prevent ignition;
E. Use of open sprays rather than directed streams of water to suppress unexpected fires and avoid dune erosion or damage to sensitive sites;
F. Survey by a professional archaeologist (as described in Stipulation I.C) subsequent to unexpected fires, launch pad mishaps, or accidental launch vehicle ground strikes; historic buildings and/or structures inspections subsequent to unexpected fires, launch pad mishaps, accidental launch vehicle ground strikes, or excessive construction or launch vibration;
H. Treatment of inadvertent discoveries of cultural resources (other than grave or ceremonial objects/human remains) during the course of routine training, operations, and/or maintenance in accordance with Section 3.5 of the PMRF CRMP (Attachment F);

I. In all cases where grave or ceremonial objects and/or human remains are inadvertently discovered or disturbed, all activity in the immediate area will cease and the following individuals or organizations notified:

1. PMRF Environmental Engineer or Cultural Resources Point of Contact
2. U.S. Navy Archaeologist
3. Hawaii State Historic Preservation Officer
4. Na Ohana Papa O Mana
5. Hui Malama I Na Kupuna O Hawaii Nei
6. Office of Hawaiian Affairs.

Subsequent actions taken will be in accordance with Sections 3(d) and 7 of the Native American Graves Protection and Repatriation Act (NAGPRA) and 36 CFR, Part 800.11, and will include those stipulations provided in Section 3.5.1 of the PMRF CRMP, (Attachment F) as well as the Draft Burial Plan provided in Attachment K;

J. Briefings to construction and operational personnel regarding the sensitivity of cultural resources sites and the civil penalties associated with their intentional disturbance by personnel or off-road vehicular traffic.

II. Pacific Missile Range Facility, Kamokala Magazines

Potential effects on historic properties within, or in the vicinity of, the Kamokala Magazines from facility construction (including ground clearing and subsurface excavation) and operational activities, shall be mitigated in the following manner:

A. As described in Stipulations I.A, I.B, I.H, I.I, and I.J of this Memorandum of Agreement;
B. Survey by a professional archaeologist (as described in Stipulation I.C) prior to any construction or ground disturbance in the area of the two proposed missile storage buildings and any required mitigation measures developed in consultation with the Hawaii SHPO and other signatories to this Memorandum of Agreement, as appropriate;
C. Historic buildings and/or structures inspections subsequent to unexpected fires or excessive construction vibration.

Execution of this Memorandum of Agreement and implementation of its terms evidence that the U.S. Navy, PMRF has afforded the Council an opportunity to comment on the actions proposed within the PMRF Enhanced Capabilities EIS and its potential effects on historic properties, and that the PMRF has taken into account the effects of the undertaking on historic properties.

UNITED STATES DEPARTMENT OF THE NAVY,
PACIFIC MISSILE RANGE FACILITY

By:_____ **Date:**_____
J.A. Bowlin,, Captain, U.S. Navy,
Commanding Officer, Pacific Missile Range Facility

HAWAII STATE HISTORIC PRESERVATION OFFICER

By:_____ **Date:**_____
Michael D. Wilson,
Chairperson and State Historic Preservation Officer

CONCURRING PARTIES

By:_____ **Date:**_____
Clission K. Aipoalani
Na Ohana Papa O Mana

ACCEPTED FOR THE ADVISORY COUNCIL ON HISTORIC PRESERVATION

By:_____ **Date:**_____
John M. Fowler,
Executive Director

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Source: Modified from Niihau, undated.

EXPLANATION

- Joint Use Approved Areas
- Keep-Out Zone
- Lakes (Playa)
- Contour Lines
- Dirt Roads

Potential New Facility Locations

- Aerostat Site
- Communications (Telemetry/Instrumentation) Optics Site
- Launch Site
- Launch Control Area
- Aerostat and Communication Optics Site
- Existing Logistics Landing Site
- Airstrip

NORTH

Scale

0 2.1 4.2 Kilometers

0 1.3 2.6 Miles

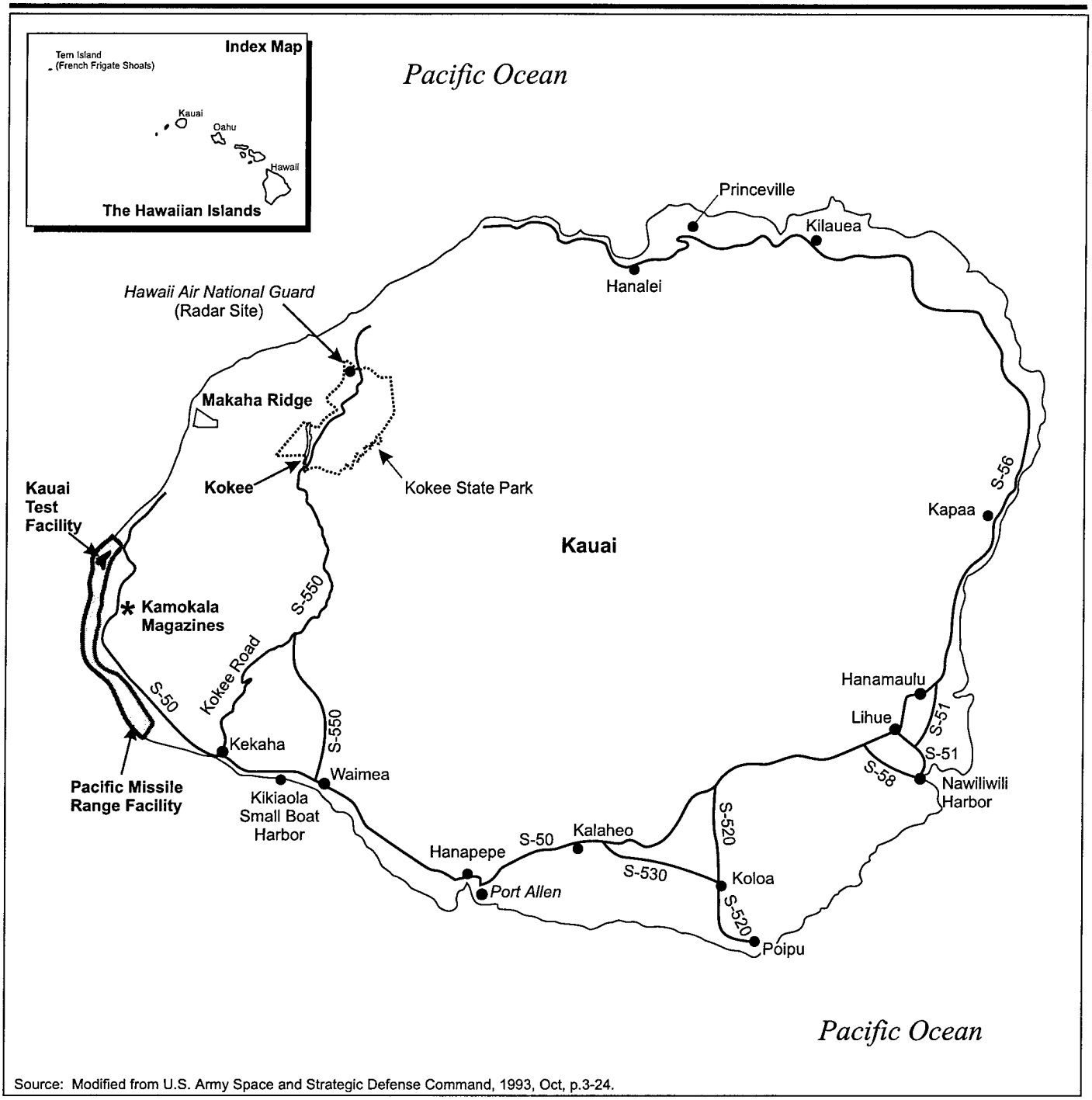
niihau_01

Potential Sites

Niihau, Hawaii

ATTACHMENT A

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Source: Modified from U.S. Army Space and Strategic Defense Command, 1993, Oct, p.3-24.

EXPLANATION

S-50 = State Highway

..... Kokee State Park Boundary

Location of Pacific Missile Range Facility and Related Sites

Scale

0 4.1 8.1 Kilometers

0 2.5 5 Miles

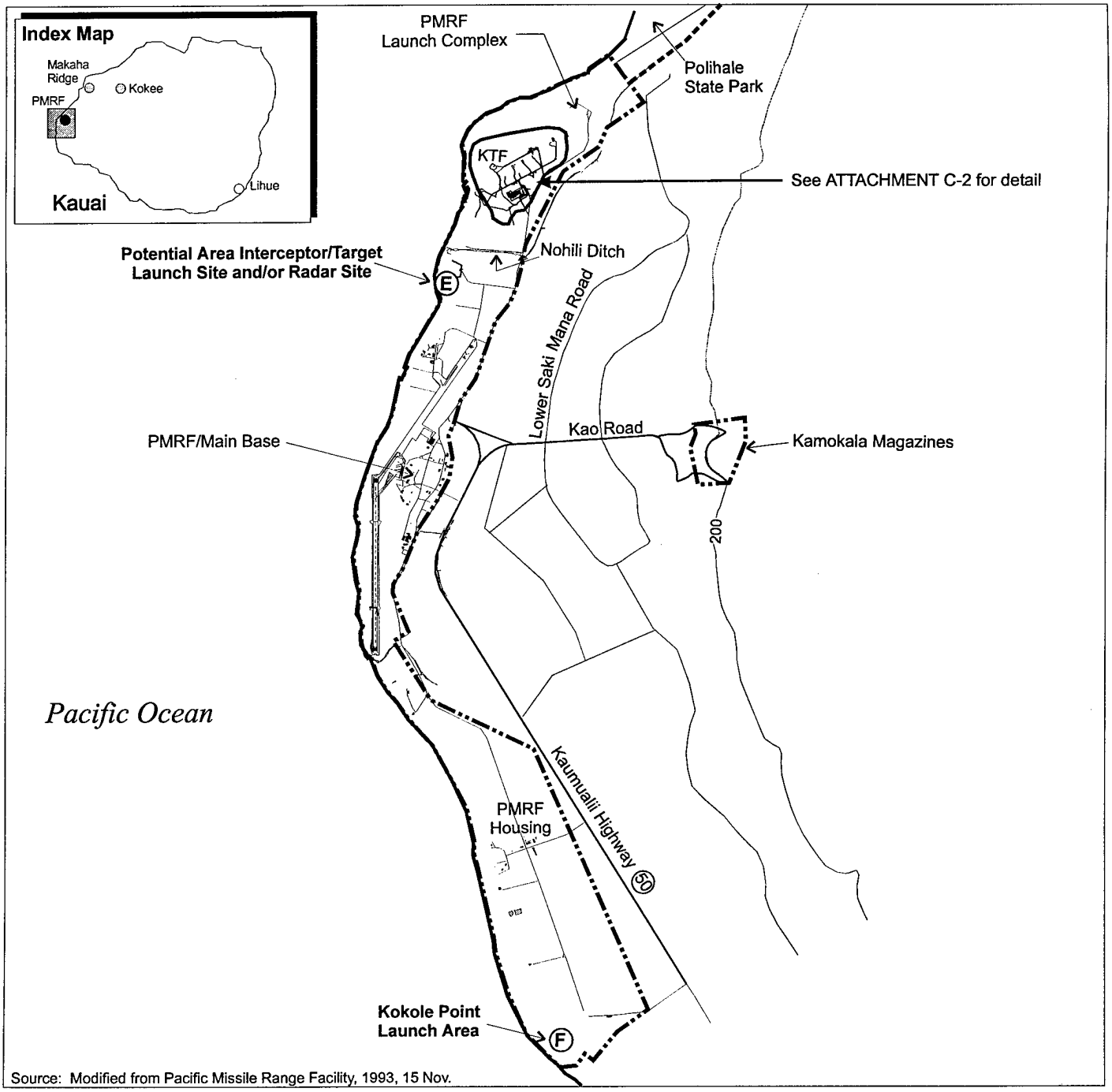
NORTH

naa_kauai_01

Hawaii

ATTACHMENT B

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Source: Modified from Pacific Missile Range Facility, 1993, 15 Nov.

EXPLANATION

- Existing Facilities/Landmarks
- Boundary of PMRF
- Boundary of Polihale State Park
- (A) Potential New Facility Locations
- Kauai Test Facility
- 200 Contour Lines (ft)

Note: All locations are approximate.

PMRF = Pacific Missile Range Facility
KTF = Kauai Test Facility

NORTH

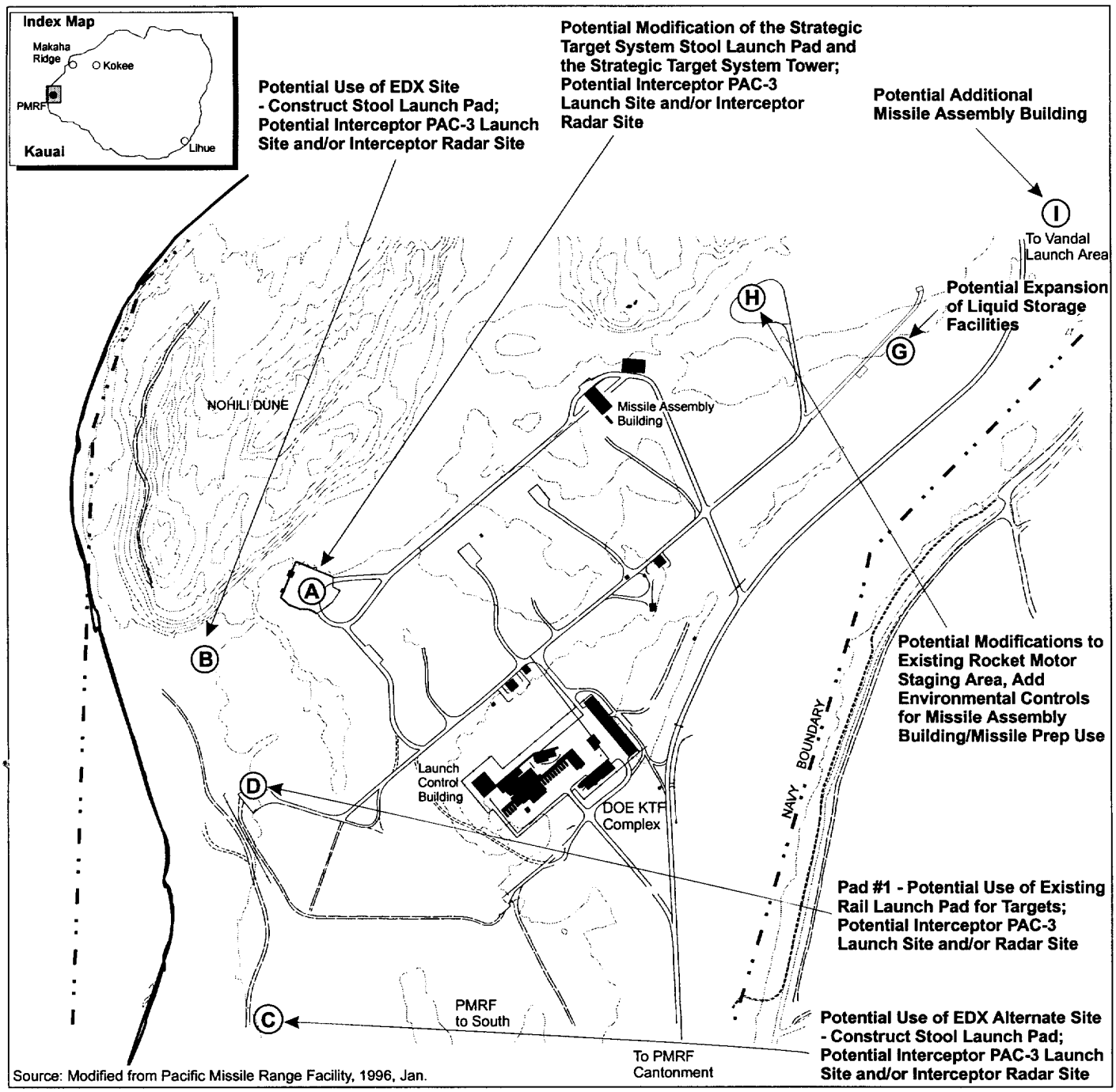
Scale
0 792 1,585 Meters
0 2,600 5,200 Feet

Potential Sites

PMRF/Main Base, Kauai, Hawaii

ATTACHMENT C-1

paa_main_01



Source: Modified from Pacific Missile Range Facility, 1996, Jan.

EXPLANATION

- Existing Facilities/Landmarks
- (A) Potential New Facility Locations
- Contour Lines

DOE = Department of Energy
EDX = Exoatmospheric Discrimination Experiment
PAC-3 = PATRIOT Advanced Capability-3
PMRF = Pacific Missile Range Facility
KTF = Kauai Test Facility
Note: All locations are approximate

NORTH

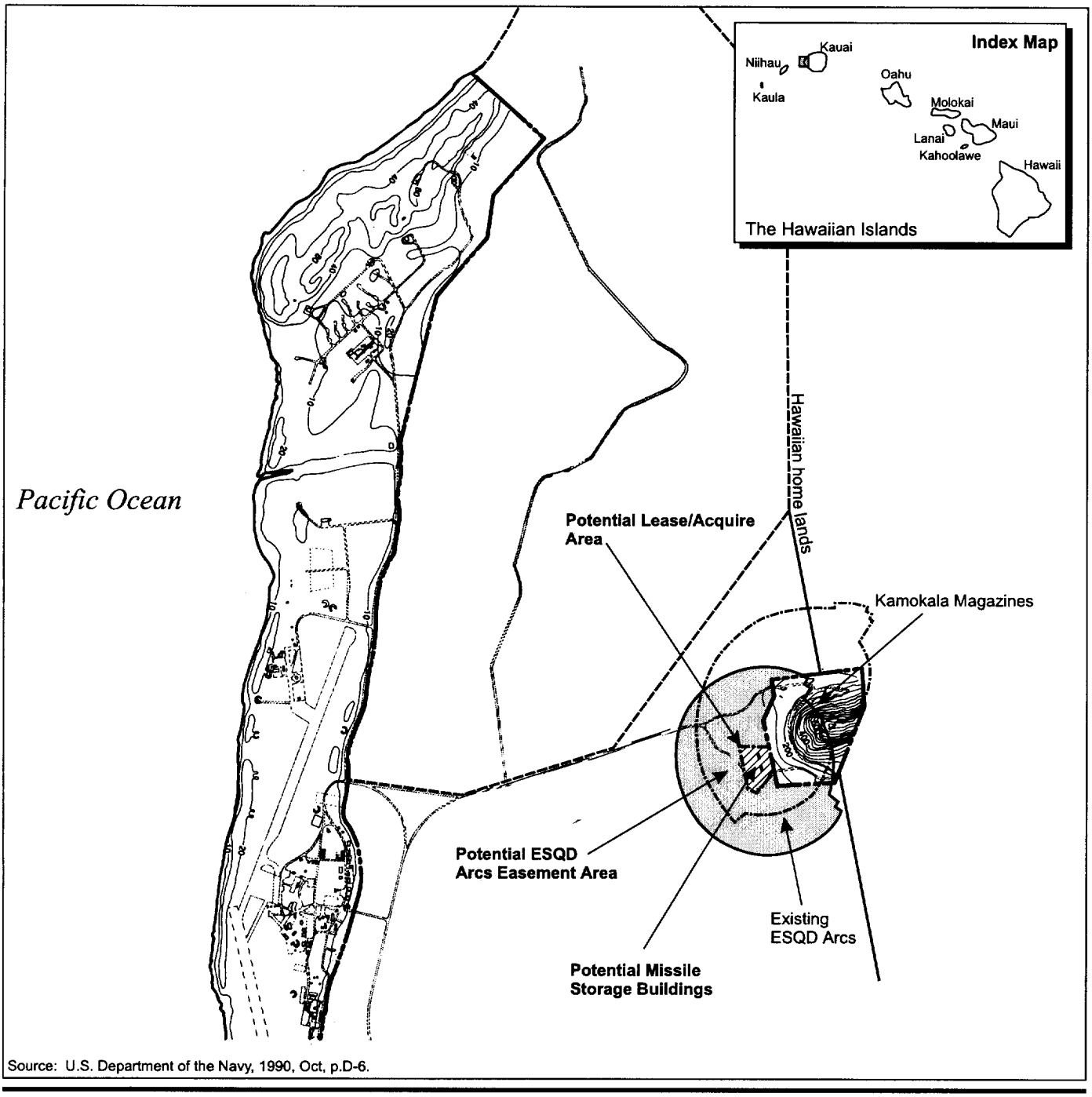
Scale
0 96 192 Meters
0 314 628 Feet

paa_ktf_01

Potential Sites

PMRF/Main Base - Kauai Test Facility, Kauai, Hawaii

ATTACHMENT C-2



Source: U.S. Department of the Navy, 1990, Oct, p.D-6.

EXPLANATION

- Pacific Missile Range Facility
- Existing Explosive Safety Quantity Distance(ESQD) Arcs
- Potential Explosive Safety Quantity Distance Arcs
- Restrictive Easement Boundary
- Potential Missile Storage Buildings
- 200 Contour Lines (ft)
- Potential ESQD Arcs Easement Area
- Potential Lease/Acquire Area

Scale
0 442 884 Meters
0 1,450 2,900 Feet

NORTH

Potential Missile Storage Buildings

Kamokala Magazines,
Kauai, Hawaii

ATTACHMENT D

paa_kamokala_01

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JOHN WAIHEE
GOVERNOR OF HAWAII

KEITH AHUE, CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES

DEPUTIES

JOHN P. KEPPELER II
DONA L. HANAIKE

AQUACULTURE DEVELOPMENT PROGRAM
AQUATIC RESOURCES
CONSERVATION AND ENVIRONMENTAL AFFAIRS
CONSERVATION AND RESOURCES ENFORCEMENT
CONVEYANCES
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION DIVISION
LAND MANAGEMENT
STATE PARKS
WATER AND LAND DEVELOPMENT

COPY

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
STATE HISTORIC PRESERVATION DIVISION
33 SOUTH KING STREET, 6TH FLOOR
HONOLULU, HAWAII 96813

REF:HP-AMK

SEP 10

LOG NO 9118
DOC NO 9308NM69

MEMORANDUM

TO Brian Choy, Director
Office of Environmental Quality Control

FROM Keith Ahue, Chairperson and
State Historic Preservation Officer

SUBJECT **Draft EIS for the PMRF Easement over State Land for Safety and Ground Hazzard Areas for STARS and Navy Vandal Missile Launches Historic Preservation Review & National Historic Preservation Act Compliance**
TMK: 1-2-02: por. 1, 15 and por. 24
Mana, Waimea, Kaua'i

We have reviewed the above document. It should be clearly stated in the document that no 100 % archaeological inventory survey has been conducted in the ROI (2110 acres). Small portions of the area have been recently surveyed by DLNR- State Parks (Carpenter and Yent, pers . com August 1993) However, it is presumed that no physical action will occur in this area Therefore, since it is an easement, we concur that the ROI will have " no effect" on significant historic sites

We do have some minor comments and concerns with this document. We do have concerns with the permanent signs No map was provided on the location of these signs. Since they will be permanent, we need to know what type of construction will take place, along with information on the design of this signs

The summary on the archaeological research conducted to date, should be updated and include the following: Cleeland 1974, Bordner 1976, Sinoto 1978, Kikuchi 1970, Kennedy/Jenks 1982, Yent 1982, McMahon 1988a & b, Gonsalez et. al. 1990, Walker, Kalima & Rosendahl 1990, Welch 1990a & b, U S Navy (n d), draft Flores and Kaohi 1992 and O' Hare & Rosendahl 1993. Appendix D-1 should be updated to include current State of Hawaii inventory sites numbers: 6017, 6018, 6019, 6020, 6021, 6024 and 724 We are unsure of the correlation of the temporary numbers listed in the table with these numbers

If you have any questions please call Nancy McMahon at 587-0006

NM:amk

c: Linda Ninh, U.S Army Space and SDC

ATTACHMENT E

E-1

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ATTACHMENT F

Pacific Missile Range Facility
Cultural Resources Management Plan

Provided under separate cover.

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ATTACHMENT G

NIIHAU RANCH
P.O. Box 229
Makaweli, Kauai, HI 96769

PMRF Expanded Capabilities
Support and
Land Use Agreement

Proposed Addendum
to
Terms and Conditions for Use of Niihau Island Facilities and Helicopter Services

PROTECTION OF HISTORICAL/CULTURAL RESOURCES:

1. In planning for PMRF operations support, the proposed Niihau land areas required for support of any particular operation shall be identified by PMRF representatives to the NGPOC, who will forward and discuss the plan with the property owner and Niihau elders. Historically/culturally sensitive areas shall be avoided whenever possible, or measures shall be employed to prevent or minimize damage to those sites. Where threat of fire exists in any operation, PMRF shall schedule and provide for a Niihau Ranch fire suppression team to be on standby on Niihau during operations. PMRF shall provide adequate fire suppression equipment for use by the team.

2. Prior to any activity which will require known disturbance of the ground (i.e., construction) the site shall be surveyed by a professional archaeologist, if not previously surveyed. Prior to start of ground disturbance activity, construction crews shall be briefed on the sensitivity of cultural resources and the procedures to be followed if sensitive items are uncovered during work at the site. During site preparation and construction, the site shall be monitored by a representative of the Niihau Ranch. A qualified archaeologist, agreeable to the landowner, would assist the island elders in monitoring the siting areas during construction and all ground disturbing activities. If sensitive items are uncovered during surveys or construction, as confirmed by the landowner and Niihau elders, with assistance of the qualified archaeologist (including artifacts or human remains), work shall stop, the area protected and followup action initiated. The property owner and elders from the Niihau community will employ action consistent with local custom. Work may recommence upon the advice of the property owner. Survey reports will be reviewed by representatives of the Niihau Ranch. Private or commercial publishing of any information pertaining to Niihau is prohibited without permission of the landowner.

3. Should there be unexpected property damage resulting from any PMRF operations, the property owner and elders from the Niihau community will be consulted on

appropriate measures to protect, stabilize, or restore the property. The Navy will pay for cost of stabilization/restoration if desired by the landowner.

4. PMRF shall be responsible for funding and scheduling all required surveys in consultation with the NGPOC who will obtain all required approvals by the property owner.

ATTACHMENT H

Niihau Island
Ongoing Activities

Downed Pilot Training:

These exercises are called TRAP (Tactical Recovery of Aircrew Personnel) missions, and provide coordination training for downed crew and recovery force personnel. The mission starts with coordination planning between PMRF program manager and Niihau Ranch Government Point of Contact (NRGPOC), D. Nekomoto). Exercise provides training for downed aircrew in escape and evasion and coordination of recovery helicopter assets. Niihau Ranch personnel are hired to locate downed aircrew, who are trying to remain hidden, and the Niihau Helicopter is contracted to provide exercise support and medevac standby. The standby exercise is scheduled and a briefing session is included, where aircrew and recovery force personnel are briefed on conducting operations on Niihau Island. Included in the pre exercise briefing, typically, is the NRGPOC, Mr. Robinson, the aircrew personnel who will be on the ground, and the recovery force team. Personnel are briefed on general rules, boundaries, hazards, and safety procedures. Personnel are also given tips by Mr. Robinson on evasion and detection avoidance. The exercise starts when the aircrew personnel are inserted at approximately 0730 by Niihau Helicopter, usually at Kaunuopou, then flies to Nanina where it remains on medevac/safety standby until the operation is complete. Aircrew execute escape and evasion plans and coordinate their rescue by helicopter at about 1600. Following the exercise, a debriefing session is held, bringing out strong and weak points of the mission. See figure 1 attached.

Impact assessment: Minimum to no impact. Personnel are taking all measures to prevent discovery, and do not overturn rocks or dig any soil. Helicopter landing areas are designated for their suitability and absence of any cultural resources.

Special Warfare Operations:

These are very similar in nature to the TRAP missions described above, and usually involve Special Warfare reconnaissance forces, whose objective is to come ashore clandestinely, remain undetected (Niihau Ranch personnel are contracted to perform island defender roles), proceed to a pre-designated reconnaissance objective, and from concealment, record activities and features at the objective site. The Niihau Helicopter provides transportation for the PMRF Operations Conductor, Special Warfare Exercise Coordinator, communications crew, and medical emergency corpsman. The medical emergency corpsman sets up a command post on island to monitor the exercise safety/conduct and performs on scene coordinator functions. Prior to the exercise, extensive briefings are conducted with Special Warfare personnel with Mr. Robinson. Following the exercise, a debriefing session is held on the island with Niihau personnel and again at PMRF with special warfare exercise personnel. See figure 1 attached.

Impact assessment: Minimum to no impact. Personnel are taking all measures to prevent discovery, and do not overturn rocks or dig any soil. Reconnaissance objectives are ranch buildings, and approaches to these objectives are roads or animal trails. Alternatives to using established animal trails or roads is transit through thorny Kiawe and Lantana plants. Helicopter landing areas are designated for their suitability and absence of any cultural resources. The Command Post is established at a ranch constructed facility at Nanina Beach

Amphibious Landings:

No large scale amphibious exercises are anticipated on Niihau Island. Amphibious operations conducted to date include those which are associated with Special Warfare exercises and Mr. Robinson's own logistics efforts. Landings which are associated with Special Warfare ops are very small scale, usually a single rubber boat and a squad size element of reconnaissance personnel, whose mission is to evade detection. In these exercises, landing on the beach also includes swimming ashore from support boats or submarines offshore. Mr. Robinson's own logistics efforts includes landing with the Ranch's leased LCM-8 landing craft, which includes bringing fuel and supplies to support the ranch and Navy facilities on the island. See large Niihau map.

Impact assessment: Minimum to no impact. Personnel who participate in small scale amphibious landings are taking all measures to prevent discovery, and do not overturn rocks or dig any soil. Landings by the Ranch are conducted at several sites which have been utilized for generations.

Helicopter Terrain Flight (TERF) Operations:

USMC Helicopters use Niihau for TERF training, which is basically low level flight and navigation exercising cockpit coordination, lookout doctrine, and TERF specific pilot techniques and procedures. A route was established in about 1992 with Mr. Robinson, and tested for sound impacts to Puuwai Village (no impact). The Niihau Helicopter transports the PMRF Operations Conductor to Kaeo mountain to observe and communicate with USMC aircraft, as the on scene coordinator. USMC aircraft fly the route, report eleven checkpoints on the route to the operations conductor. The operations conductor visually establishes individual crew performance. A debrief is conducted following the exercise. TERF is occasionally combined with Electronic Warfare (EW) exercises. See figure 2 attached.

Impact assessment: Minimum to no impact. Marine Corps helicopters are involved in overflight activity. Emergency landing requirements are prebriefed and provide suitable landing zones which are routinely used by the Niihau helicopter in ranch and company operations. Operations Conductor observation site at Kaeo is a landing site used by the Niihau Ranch.

Electronic Warfare (EW) Exercises:

Electronic Warfare Exercises are conducted from various positions on Niihau for USMC helicopters as well as for surface combatants on the range. Electronic signals

replicating those which may be found in a battle area are emitted from fixed (Perch Site) hardware or from mobile equipment. The Niihau Helicopter transports personnel to the Perch Site for operations which vary from single to multiple day operations. Equipment (Electronic Threat Simulators and Jammers) installed at the Perch Site are used to provide the desired signals. The Perch Site equipment is usually used for sending signals to ships in the range operations area. In the mobile EW operations, used mostly to support USMC helicopter operations, an EW team and electronic equipment are transported to the selected site by the Niihau Helicopter, and the team establishes a temporary EW position with portable Electronic Threat Simulators and Jammers. Signals are sent to helicopters for exercising Threat Warning System operation and interpretation, evasive maneuvering, and countermeasure procedures. See large Niihau map.

Impact assessment: Minimum to no impact. Marine Corps helicopters are involved in offshore flight activity. Emergency landing requirements are prebriefed and provide suitable landing zones which are routinely used by the Niihau helicopter in ranch and company operations. On island operations sites coincides with helicopter landing sites used by the Niihau Ranch. A fire extinguisher is included as part of the standard equipment taken by the EW team.

Unmanned Aerial Vehicle (UAV) Contingency Landing Support:

Several sites on Niihau have been designated for contingency landing by UAV aircraft, in the event an approach to PMRF cannot be executed for any reason such as unforecast winds, mechanical problem, etc. These sites are designated on the accompanying map, and were selected for prevailing wind conditions, and for being relatively flat and open without obstructions. The northern site is Kaunuopou, and the site east of Puuwai is Kamoilii. Both are pasture areas, and well suited for this activity. When UAV operations are in progress, Niihau Ranch is contracted to provide contingency landing support with a standby ground handling support crew. The Niihau Helicopter is contracted to transport a mobile flight control unit and personnel to the selected contingency landing site if a contingency landing is required. Niihau Ranch personnel are trained by the program requiring their support in ground handling and procedures, and supported all three world record flights by Pathfinder and Pathfinder Plus UAVs. See large Niihau map. Kaunuopou is located just north of the Minex Marker.

Impact assessment: Minimum to no impact. Landing sites are to be used in emergency only situation, so occasion for use of the site is already remote. Selected landing sites are located in pasture land, and wide open areas void of cultural resources.

Instrumentation/Test Sites:

To support a variety of programs and projects, requirements for instrumentation sites arise from time to time. Sites are selected based on geometry, and project requirement, and are usually temporary in nature. Equipment proposed for these sites could be small, compact units up to trailered units. All proposed sites are reviewed by Mr. Robinson for approval. A good example of this is the Moving Target Simulator instrumentation requirement. Three sites were selected, and instrumentation placed at those sites, consisting of a small weatherproof box about 2'x2'x1', a solar panel and a towered

antenna. Niihau Ranch was contracted to support these sites with labor and transportation. Temporary fences were built around the sites to protect the instruments from intrusion and destruction by animals. Upon project completion, sites were dismantled and instrumentation removed. Another example is the Inertial Navigation Marker used for Mine Warfare Training. An orange pyramid shaped structure was surveyed and placed at Kaunuopou for use by P-3 aircraft as an inertial navigation checkpoint in executing simulated mining exercises over the range. A similar Initial Point (IP) is established on the Kauai side of the channel, however, in the event drone launch activities from PMRF launch pad conflicts with requirements for conducting Mine exercises, the Niihau IP would be used. The Niihau IP was contracted for use in RIMPAC '94, and was to be removed after the exercise. Mr. Robinson elected to leave the structure in place to allow PMRF the use of it, as it was not bothering anyone by being there. See large Niihau map.

Impact assessment: Minimum to no impact. Sites are selected in consultation with Mr. Robinson and Niihau elders to reduce the possibilities of any cultural impacts. Towered antennas are usually very small (usually less than 10' high, and tower is usually an aluminum or steel pipe. A higher antenna was used, for one project, and was mounted on a trailer. Fences are usually Kiawe wood posts, and animal control wire constructed around the immediate perimeter of the selected site.

Cruise Missile Defense/Near Land Overland AEGIS support:

The AEGIS Program, in executing tests in the littoral (nearshore) environment performs tests where BQM-74 drones or manned aircraft conduct overflight of Niihau's northern land area . This is to provide test scenarios replicating hostile missiles fired towards an AEGIS ship from a land mass which features a mountainous backdrop and a land to sea transition. Program personnel indicates that there aren't any other locations adjacent to an instrumented range which provides the desired geography. The program contracts Niihau Ranch personnel to support operations by keeping land area below the intended flight track clear of unauthorized personnel and to perform contingency support (drone recovery or fire suppression) functions should they be required. The Niihau Helicopter is contracted to provide transportation to Niihau for an AEGIS program representative and a PMRF representative to function as on site observers of the overflight operations. See figure 1 attached.

Impact assessment: Minimum or no impact. Drones are remotely piloted and manned aircraft are involved in overflight activity only. The drones fly specific profiles and are monitored visually and by radar . Departure from the established profile or loss of command link will result in the drone entering a recovery mode (proceed to a recovery point and parachute descent into the recovery area.) The actual time the aircraft flies over Niihau is less then one minute per pass. The probability of a catastrophic incident occurring is extremely low since the vehicle is under the control of an experienced pilot and the short amount of time the aircraft is actually over the island.

ATTACHMENT I

ACRONYMS, ABBREVIATIONS, AND DEFINITIONS

ACRONYMS AND ABBREVIATIONS

CFR	Code of Federal Regulations
Council	Advisory Council on Historic Preservation
CRMP	Cultural Resources Management Plan
EIS	Environmental Impact Statement
National Register	National Register of Historic Places
OPNAVINST 5090.1B	Environmental and Natural Resources Program Manual
PMRF	Pacific Missile Range Facility
SHPO	State Historic Preservation Officer
U.S.	United States

DEFINITIONS

Grave or Ceremonial Objects. As defined by the Native American Graves Protection and Repatriation Act, these cultural items include:

1. Associated funerary objects, which shall mean objects that, as a part of the death rite or ceremony of a culture, are placed with individual human remains either at the time of death or later.
2. Unassociated funerary objects, which shall mean objects that, as a part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later.
3. Sacred objects, which shall mean specific ceremonial objects that are needed by traditional Native Hawaiian religious leaders for the practice of traditional Native Hawaiian religions by their present day adherent.
4. Items of cultural patrimony, which shall mean an object having ongoing historical, traditional, or cultural importance central to the Native Hawaiian group or culture itself, rather than property owned by an individual Native Hawaiian, and which, therefore, cannot be alienated, appropriated, or conveyed by any individual regardless of whether or not the individual is a member of the Native Hawaiian organization.

Hui Malama I Na Kupuna O Hawaii Nei. As defined in Public Law 101-601 (Native American Graves Protection Repatriation Act), the nonprofit, Native Hawaiian organization incorporated under the laws of the State of Hawaii by that name on April 17, 1989, for the purpose of providing guidance and expertise in decisions dealing with Native Hawaiian cultural issues, particularly burial issues.

Native Hawaiian Organization. Any organization which (a) serves and represents the interests of Native Hawaiians, (b) has a primary and stated purpose the provision of services to Native Hawaiians, and (c) has expertise in Native Hawaiian affairs, and shall include the Office of Hawaiian Affairs and the Hui Malama I Na Kupuna O Hawaii Nei.

Office of Hawaiian Affairs. Established by the constitution of the State of Hawaii, the Office of Hawaiian Affairs (OHA) is a state agency, independent from the executive and all other branches of government. OHA is a trust entity for all individuals whose ancestors were natives of the Hawaiian Islands prior to 1778. The agency was established, in 1979, to manage and administer the resources held for the benefit of Hawaiians, and to formulate policy for them; it is governed through a board of trustees.

Professional Archaeologist. An archaeologist qualified by standards established by the Department of the Interior, National Park Service and described in 36 CFR, Part 61, Appendix A.

Restrictive Easement (Ground Hazard Area). The land area within which all debris from a terminated missile launch will fall. At the PMRF, this area encompasses a 3,048-meter (10,000-foot) arc (maximum) radiating out from centerpoint which is the STARS launch pad.

Undertaking. As defined by Section 106 of the National Historic Preservation Act, a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including (a) those carried out by or on behalf of such agency, (b) those carried out with federal financial assistance, (c) those requiring a federal permit, license, or approval, and (d) those subject to state or local regulation administered pursuant to a delegation or approval by a federal agency.

ATTACHMENT J

Draft Archaeological Monitoring Plan

Proposed activities associated with the U.S. Navy's Pacific Missile Range Facility (PMRF) Enhanced Capability Environmental Impact Statement (EIS) include ground disturbance from construction, military exercises, and military operations. Inasmuch as several of the locations encompassed by the proposed action and alternatives (including the No Action Alternative) are known to encompass areas with potential archaeological sensitivity, an Archaeological Monitoring Plan has been developed to deal with the possible unexpected discovery of archaeological materials (prehistoric, historic, or traditional) and burials.

1. All monitoring activities will be undertaken by a qualified archaeologist familiar with the range of cultural resources likely to be found within the project area. In the event that monitoring activities are to take place within a known contaminated site, the archaeologist will be OSHA 40-hour trained.

2. Archaeological monitoring will consist of identification, evaluation, collection, recording, analysis, and reporting of archaeological remains during ground disturbing activities. The data retrieved shall be sufficient to characterize the nature of all major deposits and strata, regardless of the cultural content, and discuss their known extent through time and space.

3. A coordination meeting shall take place between the archaeological monitor and the construction team, prior to any ground-disturbing activities taking place. The meeting shall outline the duties and responsibilities of both the archaeologists and the construction team.

4. Arrangements for the services of a physical anthropologist (or other scientists as appropriate) with a background in human osteology will be made prior to any ground disturbing activities. In the event that osteological analysis of skeletal remains is required, this work will conform with the provisions of the Draft Burial Plan, provided as Attachment K to this Memorandum of Agreement.

5. The archaeological monitor will be present while all ground disturbing activities are occurring. The monitor will inspect the backdirt removed from construction areas as well as exposed soil profiles.

6. The archaeological monitor will be authorized to halt ground disturbing operations in order to evaluate, assess, and determine what course of action should be taken for the protection of any identified cultural materials.

7. If archaeological materials are encountered, the monitor will record and collect data sufficient to determine the significance of the site. If the site is determined to be not significant, the monitor will perform appropriate procedures, including plotting the location on the project topographic map, taking samples (as appropriate), preparing site maps, and photography. If the site is determined to be significant, the monitor will notify the following individuals in order to formulate the most appropriate mitigation measures:

   - PMRF Environmental Engineer or cultural resources point-of-contact
   - U.S. Navy Archaeologist
   - Hawaii State Historic Preservation Officer

   If the site contains grave or ceremonial objects or human remains, the monitor will secure the site and notify the following individuals. Subsequent actions will follow the guidance provided in the Native American Graves Protection and Repatriation Act (NAGPRA) and the Draft Burial Plan provided as Attachment K to this Memorandum of Agreement.

   - PMRF Environmental Engineer or Cultural Resources Point of Contact
   - U.S. Navy Archaeologist
   - Hawaii State Historic Preservation Officer
   - Hui Malama I Na Kupuna O Hawaii Nei
   - Office of Hawaiian Affairs

8. Stratigraphic profiles of excavated areas containing cultural materials will be made and photographs taken. A sampling of stratigraphic profiles will be drawn of excavated areas, regardless of the presence of cultural materials, in order to provide useful information regarding the lack of cultural materials in a given area.

9. A report addressing any findings or subsequent mitigation resulting from the monitoring will be submitted to the Hawaii State Historic Preservation Officer for review.

10. With the exception of grave or ceremonial objects, or humans remains, any cultural materials discovered during the conduct of this monitoring plan will remain the property of the PMRF and will be curated in accordance with current PMRF policy. Grave or ceremonial objects and/or human remains will be treated in accordance with the Draft Burial Plan, provided as Attachment K to this Memorandum of Agreement.

ATTACHMENT K

DRAFT BURIAL TREATMENT PLAN

This burial treatment plan has been developed by the Commanding Officer, Pacific Missile Range Facility (PACMISRANFAC) in compliance with the Native American Graves Protection and Repatriation Act (NAGPRA) and Section 106 of the National Historic Preservation Act and provides detailed procedures to be followed when Native Hawaiian remains are inadvertently encountered during construction activities, erosion or any other natural or human activity.

The plan reflects understandings between PACMISRANFAC, SHPO, KIBC, Na Ohana Papa O Mana, Hui Malama I Na Kupuna O Hawaii Nei, and OHA regarding the inadvertent discovery, disinterment, reinterment, temporarily curate and preservation of native Hawaiian human remains. It is noted that the general policy of the signatories shall be for burials not to be moved when at all possible.

Each party will observe the following understandings. Each party may terminate this agreement upon notice to the other, and each party will give prompt consideration to any changes proposed by the other.

COSTS

1. The U.S. Navy shall pay for all preservation in-place costs, as arranged in individual cases, in compliance with the National Historic Preservation Act.

2. The U.S. Navy shall pay for all archaeological costs (field, laboratory and report) in compliance with the National Historic Preservation Act.

3. PACMISRANFAC shall pay for disinterment and reinterment ceremonies provided for by this agreement. The amount of payment shall be agreed upon from time to time between PACMISRANFAC, OHA and KIBC representatives. Payments in any given Federal Government fiscal year shall not exceed $1,000 without specific approval of the Commanding Officer, PACMISRANFAC.

PREVIOUSLY IDENTIFIED HAWAIIAN BURIALS

1. Whenever a project is proposed within an area which contains previously identified Hawaiian burial sites, including burial sites identified during archaeological survey for projects under Section 106 compliance, the project proposal shall be submitted to the KIBC for its review. Within thirty days of the submittal the SHPO shall determine whether the burial sites within the project area shall be preserved in place or relocated.

2. If the remains are to be preserved in-place, they shall be preserved in-place in accordance with the preservation part of this agreement.

3. If the remains are to be relocated, they shall be disinterred in accordance with the disinterment part of this agreement.

INADVERTENT DISCOVERY OF HUMAN REMAINS

When human remains are inadvertently discovered on base, the following steps shall occur:

1. Work shall stop in the immediate area and the U.S. Navy's archaeologist at PACNAVFACENGCOM, Hui Malama I Na Kùpuna O Hawaii Nei, Na Ohana Papa O Mana, OHA and SHPO, shall be notified.

2. The remains shall not be moved until the U.S. Navy's archaeologist has the opportunity to determine whether they are recent remains under the jurisdiction of police authorities or whether they are historic remains, older than 50 years in age. If they are recent remains, the remains are not considered under this agreement.

3. If the remains are historic, the U.S. Navy archaeologist, or a designated professional archaeologist, shall document the context of the remains, burial features, grave goods, and attempt to establish the ethnic
identity of the remains with minimal disturbance.

4. If the remains appear likely to be native Hawaiian, the SHPO, KIBC and OHA's Kauai office shall be notified. If the remains appear unlikely to be native Hawaiian, the SHPO shall be notified, and arrangements other than those covered in this agreement shall be followed.

5. If the remains are in no danger and can be preserved in-place, they shall be preserved in-place in accordance with the preservation part of this agreement.

6. If the remains are threatened by construction or erosion and cannot be preserved in-place, they shall be disinterred in accordance with the disinterment part of this agreement.

7. Steps 1-4, above, shall be executed within 5 working days of discovery.

PRESERVATION IN-PLACE

When human remains are discovered and can be preserved in-place, the following steps shall occur:

1. The remains shall be covered up in their original manner as indicated by the archaeological findings (e.g., with sand, with stone platform, etc.).

2. The remains shall be marked on PACMISRANFAC maps to ensure protection in the face of future base planning and activities.

3. The remains shall be protected by appropriate means (e.g., sign, low fence, etc.) as determined appropriate by the KIBC and OHA's Kauai field representative

4. An appropriate ceremony shall occur, as considered necessary by the KIBC and OHA's Kauai field representative.

DISINTERMENT & REINTERMENT

When human remains must be disinterred, the following steps shall occur:

1. When remains are established to be native Hawaiian or are considered likely to be native Hawaiian, OHA's Kauai field representative and the KIBC shall determine if a ceremony is needed prior to disinterment. This determination shall be made within 48 hours of notification of these agencies of the decision for disinterment. If a ceremony is desired, a Federal employee acceptable to these agencies shall conduct the ceremony. If an acceptable Federal employee is not available, then a ceremony may be conducted by a nonfederal person designated by OHA's Kauai field representative and the KIBC. This ceremony may include the main elements of: ho'oponopono: mihi - an explanation and apology for the disturbance; hala - a forgiveness for the offending action; and oki - an emotional resolution that the offense of disturbing will not have future harmful consequences. This ceremony is regarded by native Hawaiians as a healing between living individuals and souls associated with burial. The ceremony will ordinarily involve one to four persons and take approximately one hour.

2. The U.S. Navy's archaeologist, in consultation with the SHPO, shall see that the remains are removed by archaeologists employed or engaged by the Federal Government. Minimal osteological analyses shall be performed within 5 days to determine or verify whether the remains are native Hawaiians (when uncertain) and to establish the number of individuals, age and sex. The proper standards of professional conduct, respect, and sensitivity shall be observed during the removal and treatment of the remains, and the integrity of each individual's remains and of any ho'omoe pu (associated grave goods) will be maintained. All osteological analyses shall be done with due recognition of native Hawaiian beliefs and respect for ancestral bones. No analyses shall be conducted which result in a destruction of bone material.

3. During the time prior to reburial, the remains shall stay on the island of Kaua'i and adequate securing for the integrity of disinterred individuals shall be assured. Further, OHA, SHPO, and KIBC shall be notified of the likely duration of time prior to reburial.

4. Human remains and their associated grave goods shall be reinterred in an underground concrete shelter at PACMISRANFAC (Facility No. 443) for permanent interment in individual casings of concrete. The shelter will have a lockable gate as the only entrance to prevent unauthorized access. The Government will maintain records for the location of the remains within the shelter.

REPORTS

Archaeological reports, whether for remains preserved in-place of for remains which are disinterred/reinterred, shall be prepared. Copies shall be filed with each signatory.

ACCESS TO PACMISRANFAC

All access by SHPO, KIBC and OHA representatives to PACMISRANFAC under this memorandum shall be subject to reasonable PACMISRANFAC requirements for identification, escort and other administrative and security procedures. Individuals who are not State or Federal employees may be required to sign liability waivers as a condition of entry to PACMISRANFAC.

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