



Sustainability and Environmental Group

**NATIONAL ENVIRONMENTAL POLICY ACT COMPLIANCE FOR  
LONG-RANGE TEST AND TRAINING ACTIVITIES**

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ELECTRONIC PROVING GROUND  
REAGAN TEST SITE  
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**SPECIAL REPORT**

**NATIONAL ENVIRONMENTAL POLICY ACT COMPLIANCE FOR  
LONG-RANGE TEST AND TRAINING ACTIVITIES**

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**Prepared by**

**SUSTAINABILITY AND ENVIRONMENTAL GROUP**

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## Preface

In response to a growing need for suitable locations to conduct research, development, test, and evaluation (RDT&E) of long-range weapons systems and associated technologies, the Range Commanders Council (RCC) Sustainability and Environmental Group (SEG) has analyzed recent National Environmental Policy Act (NEPA) efforts across Department of Defense (DoD) Major Range and Test Facility Bases (MRTFBs), non-MRTFB DoD installations, and respective NASA facilities. The enclosed report provides four deliverables to the RCC:

- a. Summary of currently available NEPA (or related environmental planning/compliance) documents addressing long-range weapon research/testing and training;
- b. Costs, schedule, and scope information for such NEPA documents;
- c. Suggested range actions that, if taken, could more easily facilitate NEPA compliance for future long-range weapon testing and training; and
- d. A detailed spreadsheet containing all relevant data collected during the execution of this task.

Please direct any questions to the RCC Secretariat as shown below.

Secretariat, Range Commanders Council  
ATTN: TEWS-TDR  
1510 Headquarters Avenue  
White Sands Missile Range, New Mexico 88002-5110  
Phone: DSN 258-1107 Com (575) 678-1107  
Fax: DSN 258-7519 Com (575) 678-7519  
Email [rcc-feedback@trmc.osd.mil](mailto:rcc-feedback@trmc.osd.mil)

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## **Acronyms**

AFB	Air Force Base
CATEX	categorical exclusion
CEQ	Council on Environmental Quality
DoD	Department of Defense
EA	Environmental Assessment
EAFB	Edwards Air Force Base
EIS	Environmental Impact Statement
FONSI	Finding of No Significant Impact
GIS	Geographic Information System
MFR	Memorandum for the Record
NASA	National Aeronautics and Space Administration
NEPA	National Environmental Policy Act
OSD	Office of the Secretary of Defense
REC	Record of Environmental Consideration
SEG	Sustainability and Environmental Group
WSMR	White Sands Missile Range

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# National Environmental Policy Act Compliance for Long-Range Test and Training Activities

## 1. Introduction

The National Environmental Policy Act of 1969<sup>1</sup> (NEPA, also “the Act”) was signed into law in 1970. The Act establishes in part the policy that the federal government shall “utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making which may have an impact on man’s environment” (42 USC § 4332(A)). The intents of the Act, and subsequent Council on Environmental Quality (CEQ) regulations, are to ensure environmental information is available to the public and to help public officials make decisions based upon understanding of environmental consequences.<sup>2</sup> The list of major federal actions to which CEQ regulations apply is broad. Examples include:

- issuance of a federal permit, license, or other entitlement;
- adopting federal land management actions;
- constructing highways and other publicly owned facilities; and
- conducting military test and training activities.

Following the NEPA process, as detailed in the CEQ regulations and each Service’s implementing regulations, agencies evaluate and disclose the effects of their proposed actions and alternatives on the quality of the human environment, to include social and economic effects.

The CEQ regulation prescribes three levels of environmental documentation: Categorical Exclusion (CATEX), Environmental Assessment (EA), and Environmental Impact Statement (EIS) - commensurate (in ascending order) with the level of anticipated environmental effect and/or public interest.

The President’s CEQ has promulgated NEPA implementing regulations<sup>3</sup> and oversees their implementation, providing guidance and interpretation as necessary. Federal agencies are bound to implement the procedural provisions in the Act.<sup>4</sup> Furthermore, most federal agencies – including the Army, Air Force, Navy, Space Force, and National Aeronautics Space Administration (NASA) – have interpreted the provisions of the Act through their own policies, procedures, and regulations. The purpose of this “tailoring” of the NEPA process is to allow such environmental reviews to more closely align with the respective mission and objectives of the implementing agencies. Even with such agency-specific flexibilities in place, the NEPA review process has been criticized time and again for taking too long, being too expensive, and being an effective mechanism for project opponents to delay or stop a federal undertaking by way of litigation.<sup>5</sup>

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<sup>1</sup> National Environmental Policy Act of 1969, 42 U.S.C. §4321 (1970).

<sup>2</sup> 42 United States Code § 4332(2)(A)/Code of Federal Regulations, Purpose, title 40, sec. 1500.1.

<sup>3</sup> Code of Federal Regulations, Council on Environmental Quality, title 40, parts 1500-1508.

<sup>4</sup> Code of Federal Regulations, Mandate, title 40, sec. 1500.3.

<sup>5</sup> Range Commanders Council. *National Environmental Policy Act Requirements, Challenges, and Best Practices*. RCC SP-20-001. 30 July 2020. May be superseded by update. Retrieved 7 July 2021. Available to RCC members with private page access at <https://www.trmc.osd.mil/wiki/x/6YlyBQ>.

Over time, agencies have begun to implement a number of NEPA best practices (RCC 2020) that can, if employed under the appropriate circumstances, alleviate the ages-old issues of high cost and unpredictable schedules. For instance, it has become more commonplace for the nation's test ranges to facilitate NEPA compliance by way of larger-scope, programmatic range-wide EAs and EISs. Examples of ranges taking this approach include the Army's White Sands Missile Range (WSMR),<sup>6</sup> NASA's Wallops Flight Facility,<sup>7</sup> and the Department of the Navy.<sup>8</sup>

These "range-wide" documents address the environmental effects of a wide range of recurring events as well as a suite of reasonably foreseeable future actions. A key benefit realized in taking this approach is that a test or training activity, if determined to be functionally similar to those addressed in the range-wide document, typically does not require its own EA or EIS; but rather a shortened assessment that usually just documents the fact that the action is "covered" by the existing EA or EIS. Taking such an approach can effect considerable cost and schedule savings.

Such benefits notwithstanding, these broad-scope documents cannot address every conceivable range activity that could be undertaken during their typical 5-10 year shelf life. Further, their geographic scope is often contained to the federal range's landholdings.

Constraining a NEPA analysis to range boundaries has made perfect sense in the past. However, per the National Defense Strategy<sup>9</sup>, the need for longer-range weapons systems, and, specifically, those requiring flight at hypersonic velocities, has changed the way that ranges think about their boundaries. Expanding range boundaries to enable testing of such new long-range technologies has driven Commanders to begin considering how to do this, including: cooperative agreement, lease, and fee simple ownership for land rights. Similarly, the acquisition of additional airspace requires consultation with; and rulemaking by, the Federal Aviation Administration, including preparation of NEPA compliant analysis and documentation; an oftentimes difficult and time-consuming process.

What each potential long-range corridor acquisition strategy has in common is this - each is subject to NEPA. Consequently, it is imperative for ranges to develop the most cost- and time-effective NEPA compliance strategy so as stand ready to meet the future needs of our Nation's warfighters. A logical first step in this compliance process is the identification and evaluation of existing NEPA documents that could be fully or partially leveraged in establishing long-range test corridors. That first step is the focus of this document.

## 2. Methodology

The primary means for collecting the information presented in this report was a survey sent to SEG members. The lead preparers of this report contacted individual SEG members via

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<sup>6</sup> United States Army. *Final Environmental Impact Statement for Development and Implementation of...* November 2010. Retrieved 15 September 2021. Available [here](#).

<sup>7</sup> NASA. *Site-wide Programmatic Environmental Impact Statement for Wallops Flight Facility, Virginia*. May 2019. Retrieved 16 September. Available at [https://code200-external.gsfc.nasa.gov/sites/code250wff/files/inline-files/wff\\_final\\_site-wide\\_peis.pdf](https://code200-external.gsfc.nasa.gov/sites/code250wff/files/inline-files/wff_final_site-wide_peis.pdf).

<sup>8</sup> United States Navy. *Atlantic Fleet Training and Testing Final Environmental Impact Statement/Overseas Environmental Impact Statement*. September 2018. Retrieved 16 September 2021. Available at <https://www.nepa.navy.mil/AFTT-Phase-III/>.

<sup>9</sup> Jim Mattis. *Summary of the 2018 National Defense Strategy of the United States of America*. 19 January 2018. Available at <https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>.

email, and requested they provide details on any known NEPA documents that had conducted analyses for any proposed actions related to long-range weapons systems testing. Specific detailed information was requested for the following aspects.

- Range Name
- NEPA Document Title
- NEPA Document Date
- Locations if Proposal Was Outside Installation Boundary
- Distances Covered
- Brief Description of Scope
- Cost (If Known)
- Time to Complete (If Known)
- Did the Scope Include Airspace?
- What are the Land Ownership Agreements (if applicable)?
- Any Agency Consultations?
- Lessons Learned
- NEPA Document Point of Contact

### 3. Results and Findings

The SEG member ranges provided NEPA documentation spanning from 1976 to June 2020. Of the 24 NEPA documents reported, 11 documents have possible relevance for providing NEPA coverage – via tiering<sup>10</sup> or supplementation<sup>11</sup> - when establishing long-range weapons testing (available [here](#)). Of these documents, the vast majority were EAs. Only 3 documents were EISs, and ranges provided no CATEXs.

The following Department of Defense (DoD) Services and NASA installations provided NEPA documents: Eglin AFB, WSMR Garrison, WSMR Test Center, Yuma Proving Ground, Edwards Air Force Base (EAFB), Vandenberg Space Force Base, Kodiak Launch Complex Alaska, Cape Canaveral Air Force Station, and Wallops Flight Facility. These NEPA documents cover a broad spectrum of activities in the U.S., including beyond the Western Region into the Pacific as well as the Gulf of Mexico and the Atlantic.

Document costs were mostly unknown; those costs reported ranged up to \$476,695 (2019 costs), and most took two to three years to complete. It is highly likely that EIS level requirements would far exceed the \$476,695 EA cost that was identified in the data collected, and likely would be well over \$1M.

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<sup>10</sup> Tiering is a process by which an existing NEPA document, often of a broad scope, is leveraged to enable a more focused, subsequent action-specific NEPA analysis. Issues addressed in the initial NEPA document need not be repeated. Rather, they can be summarized and incorporated by reference in the subsequent NEPA document. Often, this approach provides a more streamlined NEPA review of actions.

<sup>11</sup> Supplementation occurs when review of an existing NEPA document reveals significant changes to a proposed action or environmental concerns. In a similar fashion to tiering, the supplemental NEPA document does not need to repeat current analysis or information. Rather, the focus of the Supplement is the consideration of changes to the proposed action or environmental factors. Supplemental documents are usually less resource and time intensive than starting anew. However, the extent of effort required of a supplement is directly proportional to the accuracy and currency of information in the initial document.

## 4. Discussion

Of all the NEPA documents listed, it would appear the most likely to provide NEPA tier opportunities in any future development of long-range testing and training, mainly in the Western U.S., is the EAFB EA for Flight Test to the Edge of Space.<sup>12</sup> Other documents, in particular those from WSMR, and NASA's Wallops Flight Facility Programmatic Environmental Impact Statement (2019), may provide supporting documentation for future separate NEPA analyses or the possibility of tiering off these existing NEPA documents to support separate analysis of future proposed long-range weapons testing capabilities. However, the existing NEPA documentation may have limited use, depending on particular requirements of new proposed long-range weapons requirements, in particular if there is an intent to have any ground impact (incidental or otherwise) off ranges and/or outside DoD controlled Special Use Airspace.

Another NEPA option for long-range weapons testing and training could be through the use of Memoranda For the Record (MFR)/Records of Environmental Consideration (REC)/CATEX. These memo documents, used by various DoD Services and NASA, are simple to create, usually take staff a matter of hours to write, and would result in significant cost savings. For example, the Air Force uses a CATEX #11 to support "Actions similar to other actions which have been determined to have an insignificant impact in a similar setting as established in an EIS or an EA resulting in a Finding of No Significant Impact".<sup>13</sup> The other DoD Services do not have a similar CATEX for use, but could rely on MFRs/RECs to cover a similar situation as defined in the Air Force CATEX #11.

Use of MFRs/RECs is entirely dependent on Service-specific regulations and policies on the proposed action and anticipated level of impact to the environment. Unfortunately, the applicability of MFRs/RECs is often inconsistently applied across the DoD. The MFRs and RECs do provide the opportunity for an agency to create a written record of its determination that the impacts from the proposed action, and the action itself, have already been analyzed within existing NEPA EA or EIS documentation where that agency was the lead in preparing. While MFRs/RECs do offer a streamlined tool to assist in NEPA determinations for long-range weapons testing and training, they currently do not allow for adoption of another agency's NEPA documents into the MFR/REC (see "Recommendation for Next Steps #4" below). The following line of questioning could be used to help in assessing whether an MFR, REC, or CATEX would be acceptable.

1. Does the agency proposing to test or train with long-range weapons have existing NEPA policies and regulations in place that allow for the application of an MFR, REC, or CATEX that also meet CEQ regulation?
2. Does the test/training event launch from or impact on a range where there is an existing EA/EIS to cover that action?
3. Does the test/training article remain in DoD restricted airspace and/or above Class A airspace (defined here as 18,000 ft to 60,000 ft mean sea level) at all times, with NO requirement for booster drops, separations, and/or groupd support system footprint

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<sup>12</sup> 95<sup>th</sup> Air Base Wing, Environmental Management Directorate. *Final Environmental Assessment for Flight Test to the Edge of Space*. December 2008. Retrieved 20 September 2021. Available at <https://apps.dtic.mil/sti/pdfs/ADA611293.pdf>.

<sup>13</sup> Code of Federal Regulations, Categorical Exclusions, Title 32, Appendix B to Part 989, A.2.3.11.

located OFF ranges that could result in significant environmental impacts and/or compromise public safety at the surface?

4. Do the restricted airspaces have NEPA documentation that covers such use?
5. Is the potential for the test/training article failing and falling back to earth while in transit through non-range airspace considered unreasonable or unforeseeable?

A “YES” answer to all of the questions would likely support the use of an MFR, REC, or CATEX to meet NEPA requirements. A “NO” answer to any would indicate a “harder” NEPA look *may* be required, including development of an EA or EIS.

## 5. Next Steps

This report provides a list of potential NEPA documents available for use as tier documents in the establishment of any future long-range airspace corridors that support long-range weapons testing or training. To better understand the value of each document in tiering would require each be closely reviewed to obtain the specific level of analysis and area of coverage each document addressed. It is important to recognize that these documents may have limited value, if any at all, based on age of the analysis, scope of action, geographic area of coverage, and airspace altitudes involved.

Recommendations for “Next Steps” are as follows.

1. Analyze each of these EAs in detail, determine level of scope, and in particular provide an overview GIS-generated map of each of these NEPA documents that indicate geographic area and airspace altitude covered by each document. Doing so would help indicate if there is an opportunity to “stitch together” long-range weapons testing corridors using prior NEPA documents by tiering from any associated analysis, or more likely using these for supporting documentation. This “Next Step” effort could be a substantial undertaking, and is beyond the ability of the SEG to complete as an in-house task. Therefore, obtaining funding and contractor support, especially for GIS mapping of each NEPA document coverage area for geographic and airspace, would be required to complete this “Next Step.”
2. Establish a formal long-range corridor working group to continue dialogue on NEPA options and cost-sharing for those testing proposals that require NEPA documentation, as well as providing a forum for up-and-coming long-range weapons testing needs and coordination opportunities, both within and across DoD services and NASA. Currently, an informal multi-Service long-range weapons testing corridor working group does exist, and holds monthly conference calls to discuss various proposals. Ideally, this informal working group would be supported, chartered, and endorsed by OSD.
3. Work with legal counsels of the various services to determine the viability of using MFRs, RECs, and CATEX (such as Air Force CATEX #11) for certain types of long-range weapons testing and training and any associated need for establishing long-range corridors. Setting the framework for use of these memos, consistent with requirements of NEPA, is a potential strategy to address the need for long-range testing while eliminating unnecessary delays and costly NEPA documentation for certain types of

long-range weapons tests that meet established and legally-endorsed MFR/REC criteria.

4. Work with Service NEPA subject matter experts and legal counsel on incorporating best practices/lessons learned into Service specific NEPA program regulation rewrites required by recently released changes to CEQ regulations<sup>1415</sup> that would facilitate NEPA compliance for long-range weapon system testing and training. The current CEQ NEPA regulation updates allow for an agency to adopt another agency's determination that a CATEX applies to a proposed action if the action covered by the original CATEX determination and the adopting agency's proposed action are substantially the same. Similarly, an overarching NEPA document adoption policy should also be developed by the DoD for all Services in order to allow for other agency NEPA determinations to be used when relying on MFRs/RECs. Such a change to the MFR/REC policy would be particularly important to long-range weapons testing and training activities NEPA compliance, where multiple DoD ranges are likely involved and already have existing NEPA documents that cover the testing or training launch/shot, flight/trajectory, and landing/impact activities.

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<sup>14</sup> Code of Federal Regulations, Adoption, title 40 part 1506 sec. 1506.3

<sup>15</sup> Code of Federal Regulations, Agency NEPA Procedures, title 40 part 1507 sec. 1507.3

## APPENDIX A

### Citations

42 United States Code § 4332(2)(A)/Code of Federal Regulations, Purpose, title 40, sec. 1500.1.

95<sup>th</sup> Air Base Wing, Environmental Management Directorate. *Final Environmental Assessment for Flight Test to the Edge of Space*. December 2008. Retrieved 20 September 2021. Available at <https://apps.dtic.mil/sti/pdfs/ADA611293.pdf>.

Code of Federal Regulations, Adoption, title 40 part 1506 sec. 1506.3(a).

———, Agency NEPA Procedures, title 40 part 1507 sec. 1507.3.

———, Categorical Exclusions, Title 32, Appendix B to Part 989, A.2.3.11.

———, Council on Environmental Quality, title 40, parts 1500-1508.

———, Mandate, title 40, sec. 1500.3.

Jim Mattis. *Summary of the 2018 National Defense Strategy of the United States of America*. 19 January 2018. Available at <https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>.

National Environmental Policy Act of 1969, 42 U.S.C. §4321 (1970).

National Aeronautics and Space Administration. *Site-wide Programmatic Environmental Impact Statement for Wallops Flight Facility, Virginia*. May 2019. Retrieved 16 September. Available at [https://code200-external.gsfc.nasa.gov/sites/code250wff/files/inline-files/wff\\_final\\_site-wide\\_peis.pdf](https://code200-external.gsfc.nasa.gov/sites/code250wff/files/inline-files/wff_final_site-wide_peis.pdf).

Range Commanders Council. *National Environmental Policy Act Requirements, Challenges, and Best Practices*. RCC SP-20-001. 30 July 2020. May be superseded by update. Retrieved 7 July 2021. Available to RCC members with private page access at <https://www.trmc.osd.mil/wiki/x/6YlyBQ>.

United States Army. *Final Environmental Impact Statement for Development and Implementation of Range-Wide Mission and Major Capabilities at White Sands Missile Range, New Mexico*. November 2010. Retrieved 15 September 2021. Available at [https://www.wsmr.army.mil/gar/GarrisonPublications/Documents/Environmental%20Documents/WSMR\\_RangeWideEIS\\_Volume\\_I.pdf](https://www.wsmr.army.mil/gar/GarrisonPublications/Documents/Environmental%20Documents/WSMR_RangeWideEIS_Volume_I.pdf).

United States Navy. *Atlantic Fleet Training and Testing Final Environmental Impact Statement/Overseas Environmental Impact Statement*. September 2018. Retrieved 16 September 2021. Available at <https://www.nepa.navy.mil/AFTT-Phase-III/>.

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## APPENDIX B

### References

- Code of Federal Regulations, AF Form 813, Request for Environmental Impact Analysis, title 32, sec. 989.12.
- , Aircraft and Airfield Activities, title 14 part 1216 sec. 1216.304(d)(5)(i).
- , Categorical Exclusions, title 32 part 775 sec. 775.6(e).
- , Categorical Exclusions, title 32 part 651 appendix B.
- , Determining when to use a CX (screening criteria), title 32 sec. 651.29(a).
- , Environmental Analysis of Army Actions, title 32, part 651.
- , Environmental Impact Analysis Process (EIAP), title 32, part 989.
- , Environmental Planning Function (EPF), title 32, sec. 989.3(e)
- , Major Federal Action, title 40 part 1508 sec. 1508.18.
- , Major Federal Actions Requiring the Preparation of Environmental Impact Statements, title 40, sec. 1502.4.
- , Operations and Management Activities, title 14 part 1216 sec. 1216.304(d)(2)(i).
- , Procedures for Implementing the National Environmental Policy Act, title 14, subpart 1216.3.
- , Procedures for Implementing the National Environmental Policy Act, title 32, part 775.
- , Purpose, title 40, sec. 1500.1.
- , Research and Development (R&D) Activities, title 14 part 1216 sec. 1216.304(d)(3)(i).
- , Tiering, title 40 part 1502 sec. 1502.20.