REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	1998	Publication Series, August/September 1998

4. TITLE AND SUBTITLE

Area of Responsibility: October 2000 – Pacific Realignment

5. FUNDING NUMBERS

6. AUTHOR(S)

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Commander, Naval Meteorology and Oceanography Command
1020 Balch Boulevard
Stennis Space Center, MS 39529-5005

8. Performing Organization Report Number

August/September 1998
Vol. 18, No. 5

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES

ONR
PSC 802 Box 39
FPO AE 09499 0700

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

Naval Meteorology & Oceanography Command News, August/September 1998, Vol. 18, No. 5, 35 pages.

12a. DISTRIBUTION/AVAILABILITY STATEMENT

Approved for public release; distribution is unlimited.

12b. DISTRIBUTION CODE

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ABSTRACT (Maximum 200 words)

Naval Meteorology & Oceanography Command News, August/September 1998, Vol. 18, No. 5

News Features: Navy puts latest la Nina imagery on internet; ONR sponsors autonomous underwater vehicle competition; Pacific region starting to realign with elimination of NPMOCW (cover story); CNO answers questions from the fleet.

Community News: NAVOCEANO; Fleet Numerical Meteorology and Oceanography Center; Atlantic region; Pacific region; European region; Oceanography detailer.

Departments: News from the Fleet; People and places; Accomplishments

14. SUBJECT TERMS

ONR, Navy, Imagery, Realignment, Pacific region, Underwater vehicle, Fleet, Naval meteorology, Naval oceanography

15. NUMBER OF PAGES

16. PRICE CODE

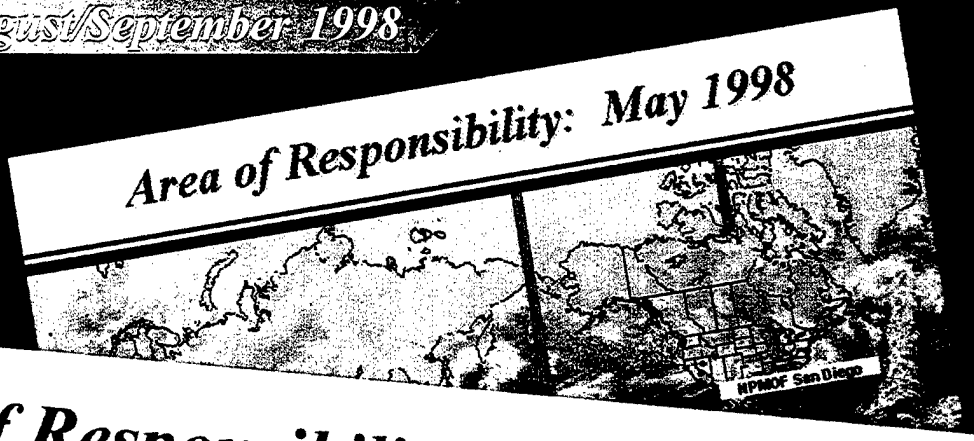
17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED	UL

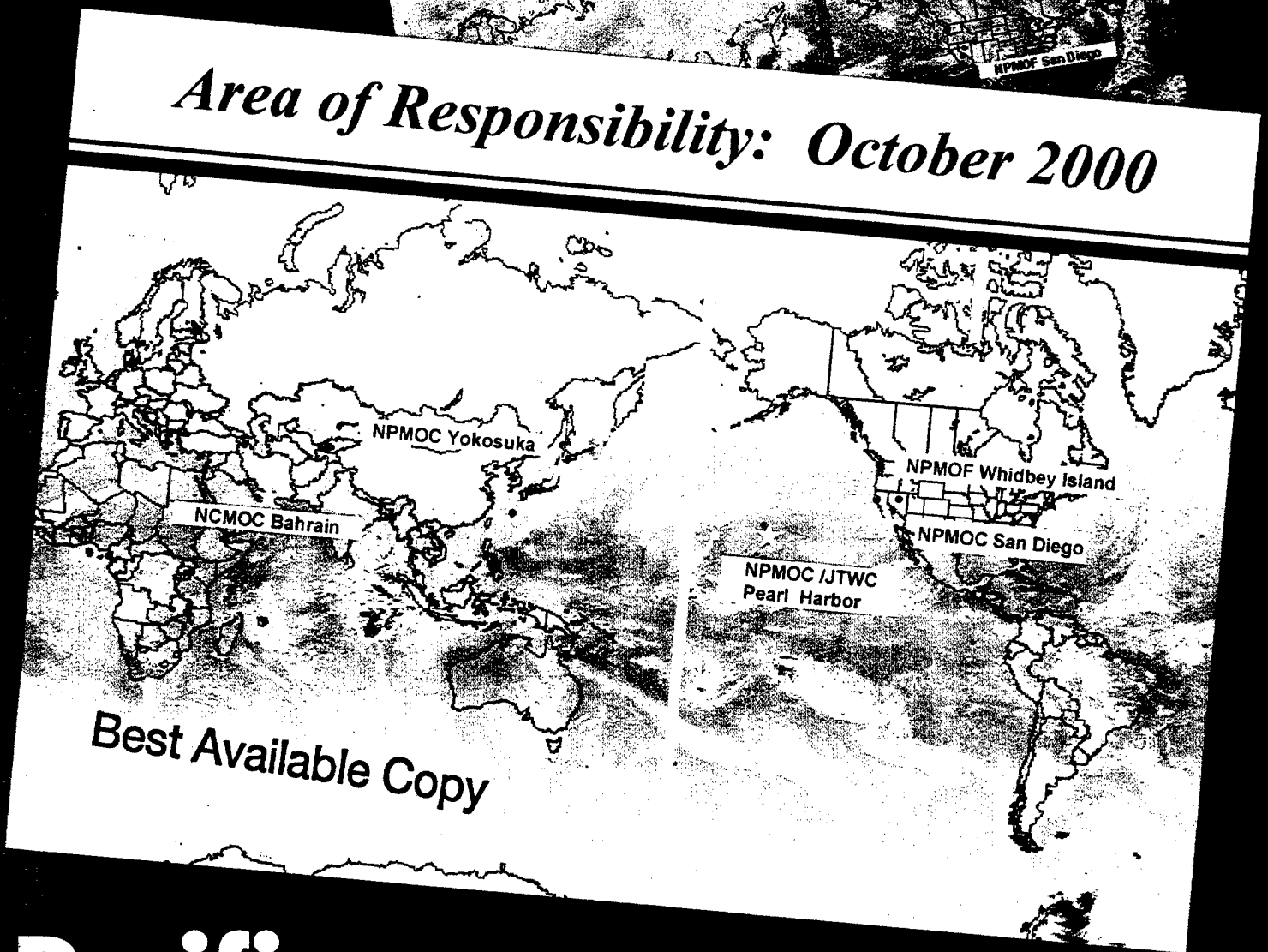
NAVAL METEOROLOGY & OCEANOGRAPHY COMMAND

NEWS

August/September 1998

Vol. 18 No. 5





Pacific Realignment

YEAR OF THE OCEAN 1998 GET INTO IT

NAVAL METEOROLOGY & OCEANOGRAPHY COMMAND
NEWS
Vol. 18, No. 5

News Features

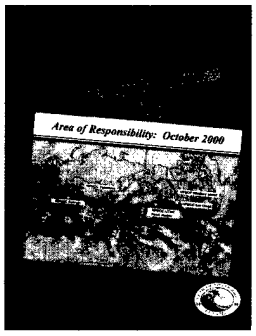
Community News

Departments

On the Cover

The cover shows the new areas of responsibility in the realigned Pacific region. Realignment starts in 1999.

Cover design by Dianna Lamb.



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ARTICLES

1. When possible, submit articles electronically via e-mail. If electronic transmission is not available, articles should be submitted typed, double-spaced, single side on 8 1/2 x 11 white paper. Include the title of the article and the name and telephone number of the author on each page. If necessary, also provide the name and telephone number of a technical contact. When possible accompany the article with photographs or black and white line illustrations.
2. Authors of material published will receive a byline credit.

PHOTOGRAPHS

1. Preferred formats are color and black-and-white glossy prints. High resolution, digital files may also be submitted. Send each image as a separate file (.tif images preferred). For best results do not embed images inside text files.
2. For each photo/image submitted, include a brief caption describing the action taking place and identifying any personnel/equipment in the photo.
3. Include the name of the photographer if known. Photos will be credited in the publication.
4. If requested in writing, photos will be returned.

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Public Affairs Office/Editor
Naval Meteorology and Oceanography Command
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Stennis Space Center, MS 39529-5005

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This appears to be the season of change

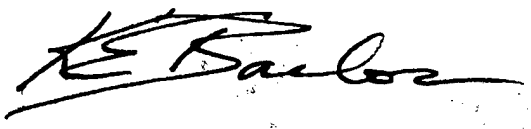
If my schedule is any indication, this appears to be the season of change. I have made the circuit, speaking at the several changes of command from Yokosuka to Rota. It has afforded me more than just frequent flyer miles. I have had the opportunity to meet with the troops and listen to their concerns and witness their achievements. I have also had the opportunity to talk to our customers and learn their needs and hear how our services meet their requirements. It has been an enlightening and rewarding tour.

First, I must commend the outgoing commanding officers. They have engineered sweeping changes in our ability to ensure safety and warfighting effectiveness of the Fleet. They have forged partnerships with their customers to ensure ever-improving services and to remain in tune with changing requirements.

Second, I am excited about the future under the leadership of the new slate of commanding officers. They come with impressive credentials, renewed vigor and a fresh perspective. They have agendas that will keep NAVMETOCCOM a critical player in naval operations worldwide.

Last and most important, the troops have performed superbly. The uncertainties that accompany change can be a strong de-motivator, but our folks have used these changes as opportunities to refine and refocus our operations. We are more efficient and more effective because our men and women "in the trenches" have been involved in structuring how we should address the future.

Change is inevitable. Some changes we need to instigate, others may be thrust upon us. In either case we must use our energy and talent to emerge better than before. Don't change that!



Kenneth E. Barbor, USN
Rear Admiral, U. S. Navy

Navy heading to 'steady state,' so future looks good

Each time I write an article for this magazine, I try to deliver a message about something current that affects each of us as Sailors or Aerographer's Mates. I'll use the page today to talk about the way I see the Navy today and the challenge we face as Sailors.

The Navy of today is in a transitioning stage that compares to no other time I can remember. After the tremendous build-up of the '80s and the sometimes steep drawdowns of the '90s, we are leveling off at something called steady-state. When I refer to steady-state I mean maintaining the same number of people and ships for the foreseeable future.

Of course, getting to this steady-state is not as easy as it may appear to be. The Navy is a big machine. Like any other big machine, we can't make quick adjustments because we could spin out of control. Slower adjustments take more time and can hurt along the way, but in the long run they are safer and produce a more stable product. In my opinion, today's Navy is in that slow turn, heading for a steady course.

Now for the challenge. In light of some of the negative things we read and the pain we may sometimes feel, do we trust our Naval leadership to get us on a steady course? My answer is *yes*! Yes, because I believe the CNO and other top Navy officials really care about Sailors. Yes, because in spite of the pain, they're patiently steering a slow turn that will put us on a steady course rather than using quick fixes that create different problems. And yes, because for over two centuries, the result of every challenge we've faced has been that our Navy has grown stronger because of great leadership.

Each of us has a role to play in bringing the ship about. Working hard and doing our jobs in the most efficient way possible are what the Navy's leadership trusts each of us to do. I trust that the best interests of the Navy and each Sailor that puts on a uniform are in good hands.

Robert J. Coniglione, USN
Command Master Chief

Navy Puts Latest La Niña Imagery on Internet

Now that the infamous El Niño of 1997-98 is over, the entire world is wonder ing what its colder counterpart, La Niña, will do.

The Naval Meteorology and Oceanography Command at Stennis Space Center, Miss., has added a special La Niña/El Niño section to its home page on the World Wide Web to help weather watchers track the phenomenon. The address is: <**www.cnmoc.navy.mil/pao/enso.htm**>.

Multi-channel sea surface temperatures (MCSST) taken from real-time satellite imagery at the Naval Oceanographic Office (NAVOCEANO) and sea surface temperature graphics from the Fleet Numerical Meteorology and Oceanography Center's (FNMOC) Global Optimum Thermal Interpolation System (OTIS) analysis clearly show La Niña's daily assault on the Pacific Ocean. Archived imagery indicates El Niño's, and now La Niña's, weekly impact on sea-surface temperatures since early 1997.

During a La Niña (Spanish for "the girl") event, tropical Pacific sea-surface temperatures and storm anomaly patterns are reversed so that the western part of the Pacific Ocean is warmer and stormier than normal, while the central and eastern portions are cooler and less stormy. La Niña is the opposite of El Niño, which causes warm tropical water from the western Pacific to propagate eastward. The shift in weather patterns associated with La Niña causes drought, floods, storms and other weather anomalies in many areas of the world. La Niña weather patterns are not necessarily equally opposite of the El Niño weather patterns.

Visitors to the La Niña web site may access information posted by the Naval Postgraduate School about El Niño/La Niña's possible impact on naval operations.

"Our web site receives up to 100,000 hits a day from users as far away as Peru," CAPT Don Mautner, Commanding Officer Fleet Numerical Meteorology and Oceanography Center in Monterey, Calif., said. "Newspapers and television stations all over the world, including the Weather Channel, used our sea-surface temperature graphics to show El Niño to their audiences."

The public's demand for Navy weather information soared during El Niño.

"I expect our sea-surface temperature products and satellite imagery will continue to be very popular as everyone watches to see how strong this La Niña grows over the next several months," said CAPT Larry Warrenfeltz, Commanding Officer of the Naval Oceanographic Office at Stennis.

Sea-surface temperature products are among several critical meteorological, oceanographic and geospatial information and services that the Naval Meteorology and Oceanography Command provides for the federal government. NAVOCEANO also provides daily near-real-time sea-surface temperature data to the latest exhibit at the Smithsonian's National Air and Space Museum in Washington. The exhibit, entitled "Earth Today: A Digital View of Our Dynamic Planet," also features time sequences of global cloud cover, water vapor, earthquake locations, volcano eruptions and vegetation index.

Multi-channel sea-surface temperatures (MCSST) refer to near-real-time sea-surface temperature data gathered by National Oceanographic and Atmospheric Administration polar-orbiting satellites and analyzed by the Warfighting Support Center at NAVOCEANO. MCSST data is run in FNMOC's OTIS model, along with ship observations and buoy reports, to create the sea-surface temperature and sea-surface temperature anomaly products. ▲

ONR sponsors autonomous underwater vehicle competition

PANAMA CITY, Fla. — The inaugural International Autonomous Underwater Vehicle Competition was held Aug. 1-3 at the Naval Coastal Systems Station in Panama City, Fla.

The event is sponsored by the Office of Naval Research (ONR) and the Association for Unmanned Vehicles System International.

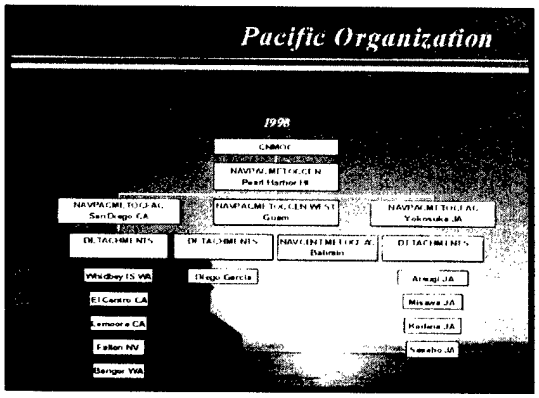
Competing in this first annual event were teams from the University of Florida, Massachusetts Institute of Technology, Stevens Institute of Technology and Johns Hopkins University. Officials had expected "reconnaissance" teams from universities around the world to "scout" this first-ever event in preparation for next year's competition.

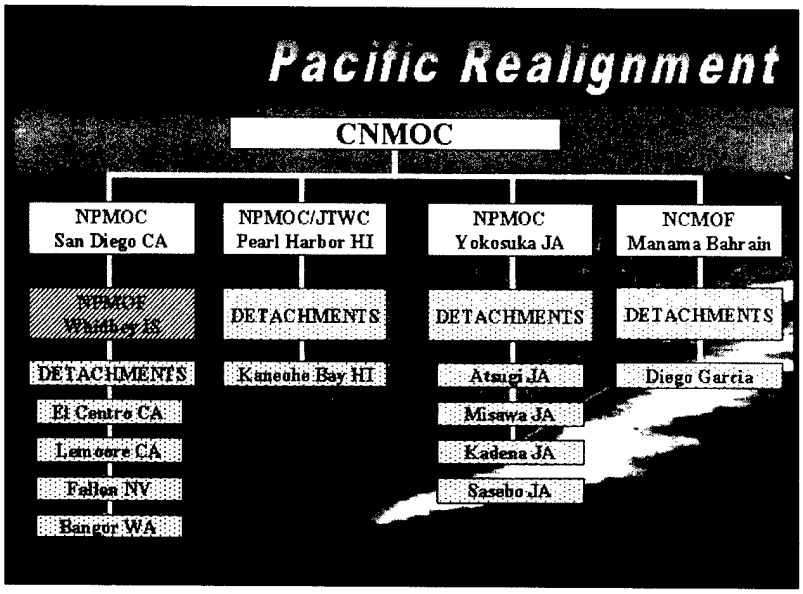
The goal of the competition was to advance the technology of autonomous underwater vehicles (AUV) by challenging the next generation of engineers to perform a real-world mission and not just a robotic task. Teams were required to design and build a completely autonomous underwater system that would travel through a body of water, navigate a series of gates, return to a designated recovery zone and determine the maximum depth of the recovery zone. The AUV had to perform all tasks autonomously, with no control, guidance or communication from a person or from any off-board computer.

Judges for the contest were Research RADM Paul G. Gaffney, Chief of Naval; RADM Craig Dorman, USN (retired); John Bunce of the Naval Oceanographic Office; Doug Todoroff and Tom Curtin of the Office of Naval Research; and Barry Dillon of Coastal Systems Station. ▲

Pacific Region starting to realign with disestablishment of NPMOCW

by CDR Linda S. Paul, LCDR Marge Z. Nordman, and ENS Stephanie C. Belcher





The only constant in the universe is change, and change is what is happening in the Pacific Region.

Base Realignment and Closure (BRAC) '95 legislation mandated the following: "Disestablish the Naval Pacific and Oceanography Center-West (NPMOCW), except for the Joint Typhoon Warning Center, which relocates to the Naval Pacific Meteorology and Oceanography Center, Pearl Harbor, Hawaii."

It also directed the closure of Naval Air Station Barbers Point, and the relocation of Barbers Point commands with the Marine Corps Base Hawaii, Kaneohe Bay.

NPMOCW Guam has been the major Western Pacific site for environmental support since 1945. In January of that year, the Fleet Weather Central (FWC) was established to provide weather services to the Commander in Chief, Pacific, and Pacific Fleet units during the campaigns in the Western Pacific. Fleet losses to typhoons of December 1944 and June 1945 resulted in the establishment of the Typhoon Tracking Center in June 1945.

Now, 54 years later, NPMOCW Guam will close on May 31, 1999. As a result, a realignment of METOC activities throughout the Pacific has already started. The realignment goal is to better support the warfighter by creating a more effective fleet/customer-centered organization and to support Navy homebasing efforts in fleet concentration areas.

"Currently, the International Date Line divides operational responsibilities, with NPMOC and NPMOCW supporting THIRD and SEVENTH Fleet AORs respectively, so the METOC Pacific Region is comprised of two centers, three facilities, and 10 detachments spread across the Pacific and Indian Oceans.

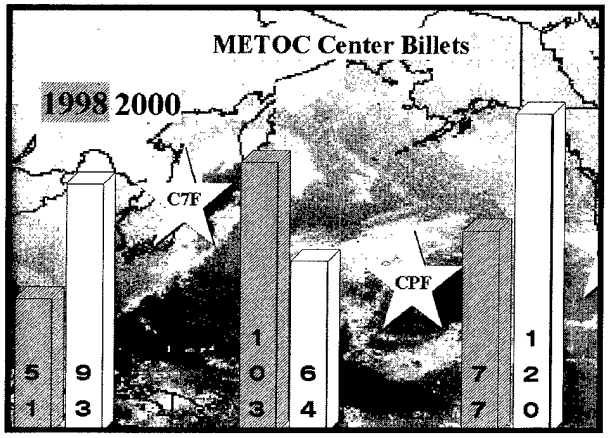
The personnel realignment has already begun with the transfer of Aerographer's Mates from Guam to other facilities and the addition of new personnel and officers to the wardroom in Yokosuka, which will become a center April 1, 1999.

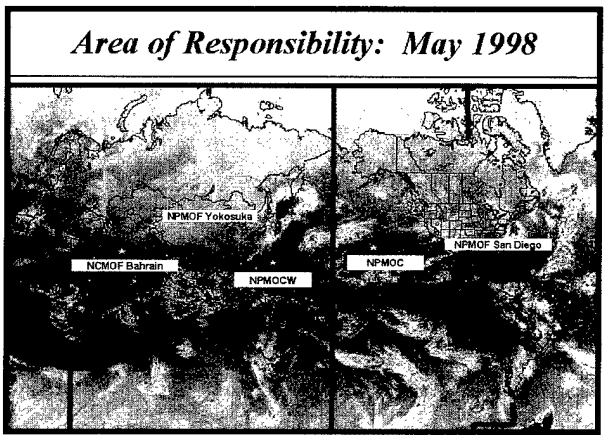
Organizational changes officially begin October 1998 – with the establishment of a METOC Detachment at Pt. Mugu, Calif. – and end in summer 2000 – with Naval Pacific Meteorology and Oceanography Detachment Whidbey Island's becoming a METOC Facility, and a MET's being formed.

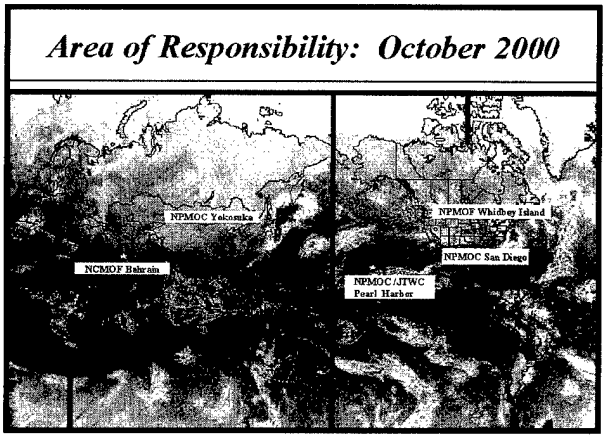
The realignment will co-locate METOC Centers with their primary customers, the Numbered Fleet Commanders (THIRD, FIFTH, and SEVENTH). With increased exposure and accessibility, the yield will be better integrated planning and support between METOC and operational forces.

Pacific Realignment Timeline:

Oct. 1998	Establish NAVPACMETOCDET Pt. Mugu, Calif.
Jan. 1999	Transfer the Joint Typhoon Warning Center (JTWC) to Pearl Harbor, Hawaii
Mar. 1999	Transition NAVPACMETOCDET Barbers Point, Hawaii to NAVPACMETOCDET Kaneohe Bay, Hawaii
Apr. 1999	Transfer NPMOCW responsibilities from Guam to Yokosuka (Upgrade Yokosuka, Japan to NAVPACMETOCCEN Yokosuka)
Apr. 1999	Upgrade NAVCENTMETOCFAC Manama, Bahrain to NAVCENTMETOCCEN Manama, Bahrain; Realign NAVPACMETOCDET Diego Garcia reporting to NAVCENTMETOCCEN Manama, Bahrain
31 May 1999	Formally disestablish NPMOC West, Guam
Jun. 2000	Transfer WEAX/OTSR from Pearl Harbor, Hawaii to San Diego, Calif. Upgrade San Diego, Calif. to NAVPACMETOCCEN San Diego
Aug 2000	Upgrade Whidbey Island, Wash. to NAVPACMETOCFAC; Establish Whidbey Mobile Environmental Team (MET)







Improvements in sea/shore rotation for Aerographer's Mates will be made throughout the region, adding more shore-based billets at Yokosuka and San Diego. Home-basing opportunities will also increase, and Sailors will be able to acquire a variety of skills while remaining in the same geographical area. Navy families will benefit from increased stability with respect to family services, education and spouse employment options. The overall result will not only maximize METOC resources but also should provide Sailors more stability.

BRAC '95 was the initial driving force for change, but the final Pacific METOC Realignment reflects vision and commitment in supporting our fleet and our Sailors. ▲

CNO answers questions from the fleet

WASHINGTON — The following questions and answers have been compiled from responses by the Chief of Naval Operations, ADM Jay L. Johnson, during recent meetings with Sailors.

Q: What changes will the Fleet face as we head into the next century?

A: We are at 341 ships today. By 2003 we will have reshaped the Navy to one of about 300 ships based around 12 Carrier Battle Groups and 12 Amphibious Ready Groups. They will be the combat core of the U.S. Navy - Marine Corps Team.

The people side of that force will go from about 381,000 active and about 93,000 reserves today down to about 369,000 active and about 89,000 reserves. We believe that within two years we will essentially be there on the people side, and the ships will come down by 2003.

The message in that is that we are reshaping ourselves into what I call a leaner but more capable force. And the money we save will be used to improve our lives by investing it in filling our operations, maintenance and manpower accounts to a level we have not been able to in the last decade. That means we'll have more money for things like PCS and manpower, ship and aircraft maintenance, and operations.

So, we're putting our money where our mouth is. Fiscal year 1999, which begins this October 1st, is going to be a better year than 1998 – and that's a fact. We've made huge strides working the issues in Washington, and it takes time to work its way through the system to where Sailors can feel the effects. But, I'm here to tell you that 1999 is going to be a better year. You need to know that's happening because it's good news.

Q: How do you see the quality of life affected by the reshaping we are undergoing, and won't reshaping mean we will have to do more with less?

A: I don't ever want you to think we are going to do more with less. We can do more with more or less with less, but not more with less. We have reshaped ourselves; we have come down in size; but the commitments have not shrunk. We are at the point where we can't go lower and meet our commitments. We need a 300-ship Navy. We need every person that we've got to be able to do it the right way. We can't get any smaller than the force we're planning for and [still] do what we are being asked to do today. So don't give me 'more with less' – we can't do that. We are out of that business. I would say that we are very sensitive to what we are doing to our enlisted and our officer force. It is a great concern to the leadership in the Navy today.

There is a quality of life initiative that we are working, that is backed by our four-star leadership. It will make your lives a bit easier when you're not deployed. The effort is designed to help achieve one of my chief concerns – keeping good Sailors in the Navy.

We have given you too much to do and not enough resources to do it with. So we're making a commitment at the four-star level to take a look at the non-deployed side of our lives and carve out 25 percent of it, clean it up and give it back to the Commanding Officers for them to do with as they need to.

The effort is aimed at stabilizing the time spent between deployments by reducing inspection and assist visits and streamlining underway training time.

I believe we can do it. I believe it will help. I believe it will make our lives a lot better when we're at home. We're committed to that and it's not something that's out five years. This month (September '98) the Fleet Commander in Chiefs (CinCs) will deliver to me a plan that essentially gives a significant portion of the inter-deployment training

cycle (IDTC) back to skippers. That's a big step forward for all of us.

Q: What about uniform changes? When will they go into effect?

A: In response to inputs from you in the Fleet, I have approved several significant changes to Navy uniforms. The most significant of these changes is a new utility uniform that will replace the Navy dungaree uniform worn by enlisted men and women for more than 60 years. In addition, coveralls will be added to your seabag.

Replacing dungarees for E-6 and below will be a 65 percent polyester and 35 percent cotton-blend uniform consisting of dark blue straight-leg trousers and a chambray shirt. The new style utility uniform transition period will begin January 1, 1999.

Another change is coveralls made of 65/35 percent poly-cotton with embroidered collar devices, breast insignia, badges, name and U.S. Navy tapes will be added to your seabags for use aboard ship and ashore for tasks that put excessive wear and tear on the working uniform.

Coveralls will be available as an optional item for you beginning Oct. 1, 1998.

I approved these uniforms after months of testing last year with many of you throughout the Fleet on ships and ashore. The new working uniform was designed by the Uniform Board for the improved wear, better fit and appearance requested by you.

Q: What is the Navy doing to alleviate the recruiting shortfalls we are hearing about?

A: Because of a robust economy and record low unemployment in the private sector, we are facing a recruiting shortfall this year. We are increasing the number of recruiters and stabilizing the size of the recruiting force to help solve this challenge, and for the first time we're asking E-4s to be recruiters. As it turns out, the other services have successfully used E-4s for some time.

But we're all recruiters right now. We need to get more young, high quality men and women in the Navy, and we all can play a role in that. Many of you, as you rotate, may be asked to be recruiters. We have a great recruiting force out there now. We need to help them a little bit by upping the number of recruiters and give them more resources to work with.

Q: What about retention?

A: We are retaining enough people, but we can do better. The numbers are getting better, and retention has been improving slowly across the board. There are several reasons for that, including the fact advancement numbers are coming up; we are addressing pay and compensation issues; and as the downsizing ends, we are no longer asking people to leave. Retention is an issue we must all pay attention to. The Navy has a lot to offer, and we want our great Sailors to stay.

Q: I've heard about something called "Operational Risk Management." What is it and how will it affect the Fleet?

A: One of the most challenging aspects of naval operations is successfully managing risk – identifying and assessing hazards, then employing tools to make sure those hazards don't harm our shipmates and destroy equipment.

During operational planning, a concept called operational risk management (ORM) promotes two-way communication in the chain-of-command, makes better use of lessons learned, and equips us to minimize hazards which are a by-product of change.

It has already produced great results in numerous squadrons and ships, but we have much more to do! I am encouraging top-down interest in the ORM process, from the flag level all the way to the deckplate Sailor.

To accomplish that, our Fleet CinCs are conducting a complete review of the inter-deployment training cycle using the ORM process. This will help all levels of the chain-of-command better understand the risks concurrent with tasking subordinate units.

Mishaps have cost our Navy 724 lives and $3 billion over the past five years. That is a staggering toll and a trend that must be reversed. ORM is a proven process that prevents the loss of precious lives and valuable systems. But it can only work if all of us integrate ORM into our daily routines. This really is all hands' business, and I charge each of you with making ORM a core element of Navy life. [NOTE: The Naval Safety Center Website, **<www.norfolk.navy.mil/safecen>**, contains more information about ORM.]

Q: With all of these changes how do you rate the Navy today?

A: We've got a great Navy. You should be very proud of that and of your role in it. I'm counting on each and every one of you to do your job, to do it well and to be proud and share the pride we have in our Navy. ▲

NAVOCEANO making an educational difference with OCEANS ALIVE

The United States needs a workforce with strong science and mathematical skills and with the ability to apply those skills to emerging technologies. Goal 4 of the National Education Goals says: "By the year 2000, United States students will be first in the world in math and science achievement."

To help reach this goal, the Naval Oceanographic Office (NAVO) developed the Oceanographic Career Enhancement And Naval Science: Adventurous Learning In Variable Environments (OCEANS ALIVE) program to interest local youth in science and math through the field of oceanography. OCEANS ALIVE provided a combination of classroom lectures and hands-on learning to selected students and teachers aboard the multi-purpose oceanographic survey vessel, USNS HENSON, in the Gulf of Mexico.

Jack Tamul, Senior NAVO Representative, said the idea behind the new program is "giving the students a better perspective of the ocean environment and how it relates to the Navy."

During two, three-day trips, NAVO oceanographers, meteorologists, mathematicians and electronic technicians taught students math and science skills through collecting and processing oceanographic data. Tamul, Patti Simm, Bobbie Thompson, Mitzie Clough, Chip West, and Jay Wallmark were the NAVO surveyors aboard.

In the oceanographic section, students and teachers collected plankton samples, enriched them with nutrients and then measured their growth. Students related their plankton findings to the carbon cycle, global warming and hazardous blooms.

In physical oceanography, participants used a side-scan sonar to look for shipwrecks in the Mississippi Sound.

For the geological oceanography section, students and teachers took grab samples of the ocean floor and studied sediment deposits that form the barrier islands that border the Mississippi Sound.

"I learned about the ocean, including the physical, geographical and biological aspects. I had hands-on experiences aboard an oceanographic [survey] ship measuring with plankton tows and collecting bottom samples," said Eddie Moe, a Mississippi student.

At the end of the experiments and classroom sections, the instructors opened up the floor for discussions.

OCEANS ALIVE participants study bioluminescence in the wet lab aboard USNS HENSON.

Jack Tamul, SNR with NAVOCEANO, helps Alexis Schmalz, an OCEANS ALIVE participant, clasp her life vest while learning about shipboard safety on USNS HENSON.

"Here, we debated with students on topics such as on global warming and its concerns for the Navy. There were no right or wrong answers, merely encouragement for the students to think analytically," Tamul said, after admitting that this was his favorite part of the trip.

NAVO worked closely with an educational advisor to ensure that the OCEANS ALIVE curriculum met the state and national science education standards. Twenty-three students in the 10th, 11th or 12th grades were selected for OCEANS ALIVE according to their science fair participation, the number of science and math classes taken, educational goals, career goals, and essays on what they hoped to gain from their experience.

"This program is something any student interested in science and math would love to attend. By participating in programs like OCEANS ALIVE, I'll become closer to my goal of being as knowledgeable as possible in scientific fields that have a direct effect on our world today," said Avery Zollinger, a Louisiana student.

After the trip, students and teachers gathered to create a web page about their learning experience. The web page content discusses classes, scientific procedures, and data results. Teachers will also to be able to weave their OCEANS ALIVE experiences into their science and math classroom instruction.

"It was a pleasure to be able to get out of the classroom and interact with the students while learning the oceanographic curriculum. When their faces lit up with interest and understanding, you remembered why you went into teaching in the first place. It was definitely an experience that I'll bring back to the classroom," said Ken Thompson, a Mississippi teacher. ▲

Pictures provided by Georgia Hackney, OCEANS ALIVE Coordinator and NAVO employee.

Mississippi and Louisiana students and teachers break from the OCEANS ALIVE activities for a photo with their NAVOCEANO instructors.

COAMPS the barbarian

by AG1(AW) Damon Williams, Fleet Numerical Meteorology and Oceanography Center Quality Control Team member, and AG1(AW/NAC) Darin Keeter, Current Operations Leading Petty Officer at Fleet Numerical Meteorology and Oceanography Center

"I'll take Atmospheric models for $200, Alex."

"A mesoscale model that can predict local winds, Mesoscale Convective Complex (MCC) outflow boundaries, non-convective/convective clouds, and numerous boundary layer conditions."

"What is, the new Coupled Ocean/Atmosphere Mesoscale Prediction System (COAMPS) model?"

We can hear fleet forecasters now, "Wonderful, another model with all its special quirks and tendencies to learn and I just got comfortable using the old one."

Fear not, it will be worth the time and effort to learn about mesoscale models because of the precise detail they bring to operational, strike, and special mission forecasts. COAMPS is the brainchild of the Naval Research Laboratory's (NRL) Marine Meteorology Division, located in Monterey, Calif. Preliminary testing began in June 1996 and, as of August 1998, the atmospheric portion has reached operational status. Still under development is the ocean segment, which, when fully operational will be coupled with the atmospheric portion to provide a complete and internally consistent representation of the sea-air-land environment in which Naval forces must operate.

Those new to the world of mesoscale models will immediately notice a marked difference from coarser resolution synoptic-scale models. A mesoscale model does not produce a classic, textbook display of weather patterns. For instance, a surface chart displaying wind flow in the vicinity of a low-pressure center might show acute cross-isobaric flow. At first glance, this may seem to contradict synoptic meteorology, but this is not synoptic meteorology. Does it mean COAMPS cannot be used to locate wind flow around lows? Not at all. In fact, COAMPS gives a more accurate depiction of wind flow than synoptic models because it accounts for terrain features. However, for a forecaster to consistently use the model's output correctly requires an understanding of COAMPS' development and structure as well as a better understanding of model interpretation techniques.

Other than increased resolution, the two most significant differences between COAMPS and other models, are first, that COAMPS is a non-hydrostatic model, and second, that it treats moisture differently. To appreciate this first innovation, one must first understand what the term hydrostatic means as it applies to numerical modeling. NOGAPS and NORAPS utilize the hydrostatic approximation, which assumes no vertical atmospheric acceleration. Since COAMPS is non-hydrostatic, it includes predictive equations to calculate both horizontal and vertical accelerations of the wind field. This allows the model to handle much smaller scale features than its hydrostatic cousins. With this ability, COAMPS has become an invaluable tool for forecasting areas of severe weather such as those associated with Mesoscale Convective Complexes (MCCs). These systems may be identified on higher resolution grids by locating outflow boundaries depicted by diverging winds on a surface streamline chart, checking for possible down drafts using the isotach displays, and finding surface meso-highs after a cell has collapsed. With COAMPS, a forecaster can watch for these telltale indicators and often detect MCC occurrence. The second innovation is the way COAMPS treats moisture. COAMPS uses predictive equations for water in many of its phases, including water vapor, cloud droplets, ice crystals, raindrops and snowflakes. Most other models derive these parameters from water vapor only. This allows more accurate cloud forecasting and precipitation accumulation forecasting, among other things.

How does COAMPS achieve its high resolution? Operationally, COAMPS is a triply nested model, which means that a COAMPS grid covering some region can consist of three progressively smaller and higher resolution sub-grids "nested" within each other. For example, the 81-km resolution COAMPS grid covering Europe contains a smaller 27-km resolution grid covering the Med, which, in turn, contains an even smaller 9-km grid covering the Strait of Gibraltar. Here, "resolution" refers to the horizontal spacing between grid points in the model. The 81-km grid receives its lateral boundary conditions, which serve to specify the weather moving into the region from upstream, from the Navy Operational Global Atmospheric Prediction System

(NOGAPS). This outer nest is only for "computational" purposes and is not available for operational viewing. The two inner nests, 27-km and 9-km resolution, are applications grids that contain products available to customers. Within each nest, the model forecasts for 30 vertical levels, with the highest vertical resolution near the surface. The model uses the sigma-z vertical coordinate system, which is terrain-following with levels specified approximately as heights above the ground versus sea level. This helps make COAMPS a good model for predicting orographically driven phenomena, such as downslope winds in mountainous terrain.

Unlike most mesoscale models, COAMPS has its own atmospheric data assimilation system with associated quality control of observational data. COAMPS uses its previous forecast as the first-guess for its analysis of data. This process is referred to as the "update cycle." Under normal operating conditions, this system of initialization works extremely well. However, problems may occur when COAMPS is run for the first time in a new area or if the update cycle is broken. When this happens, NOGAPS fields are used for initialization, and this is referred to as a "cold start." Generally, a cold start decreases the accuracy of COAMPS analyses and forecasts until the model restabilizes. Forecasters should be aware of this characteristic because it can take up to 48 hours of operation for the model to completely recover from a cold start. (Note that, unlike COAMPS, most mesoscale models "cold-start" with every run.)

COAMPS forecast accuracy was not achieved solely by improved physics and increased resolution. It was also necessary to update the terrain database with two of the National Imagery and Mapping Agency's (NIMA) Digital Terrain Elevation Data (DTED) databases. The 9-km nest incorporates the 100-meter Level 1 database, which has been subsampled to a 1-km model database and ultimately interpolated to match the 9-km resolution. The 27-km nest uses the coarser 20-km database, which is again matched to the respective nest resolution. With the ability to incorporate these databases into its calculations, COAMPS has proven to be an exceptional model for forecasting localized winds. However, just as a good working knowledge of terrain will improve the accuracy of a forecast, an understanding of the model's view of the same terrain can mean the difference between mission success and failure. As with any numerical model, the differences between model and actual terrain are caused by the extrapolation of values between the DTED database and nest resolution. These differences may be manifested as islands merged into one land mass or the misrepresentation of individual mountains in a range, resulting in inconsistent wind forecasts. COAMPS minimizes this problem due to its higher resolution.

Like any computer model, COAMPS has its share of unique model characteristics. To maximize the benefits of COAMPS forecast guidance, forecasters should obey the first commandment of numerical models – "thou shalt know thy model's tendencies!" To discuss each individual COAMPS' tendency would be too lengthy. A Quality Control Team, made up of meteorologists and Aerographer's Mates, routinely provides input to the list of consistent tendencies. This information is available on FNMOC's

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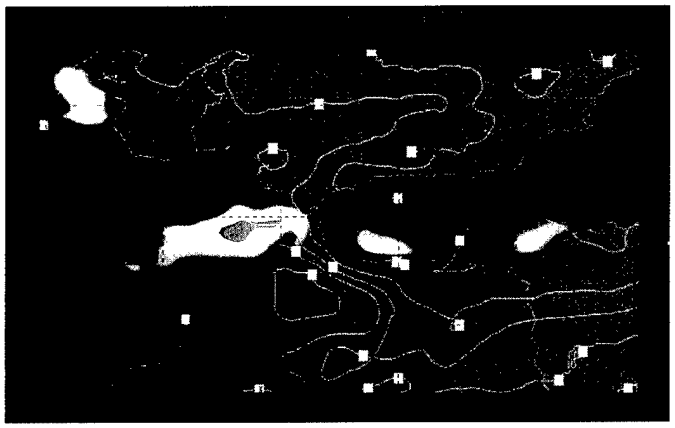
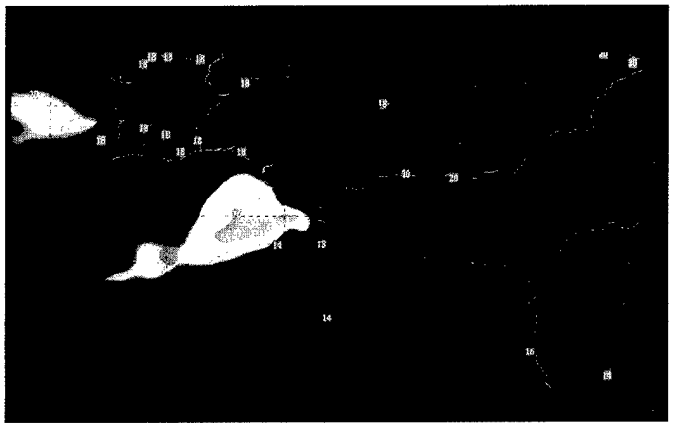


18-hour forecast of wind speed and surface pressure from 9-km resolution COAMPS grid over the Strait of Gibraltar. Note the Levante wind pattern associated with the funneling of winds through the Strait.



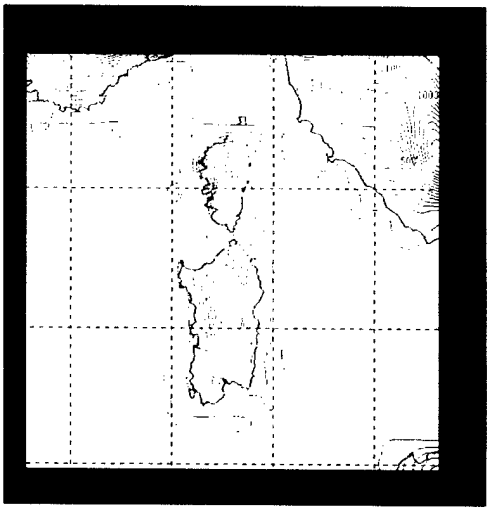
24-hour forecast of wind speed and surface pressure from 9-km resolution COAMPS grid over the Strait of Gibraltar. Note the Levante wind pattern associated with the funneling of winds through the Strait.

Continued from page 13

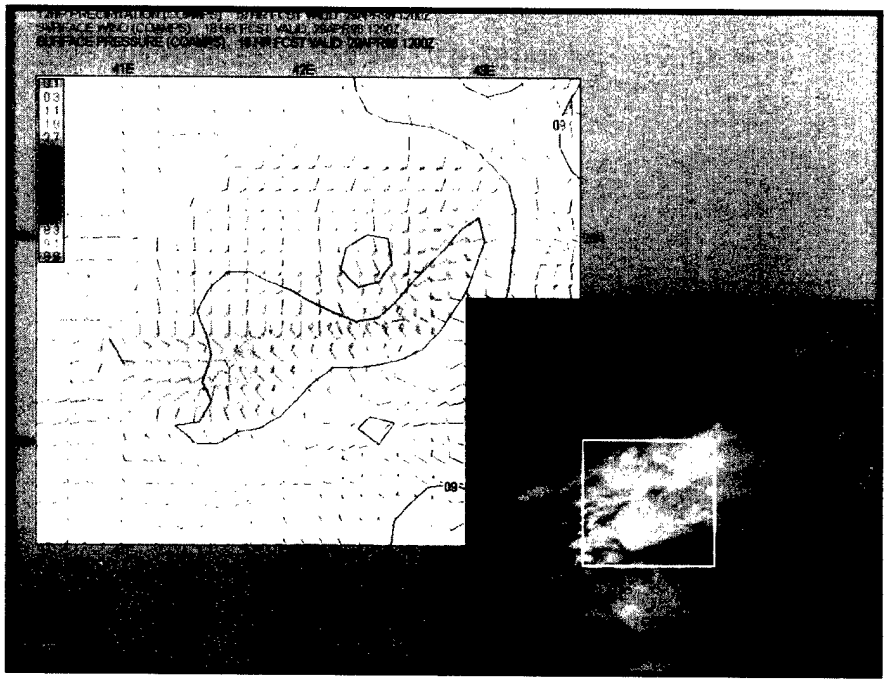
homepage (www.fnmoc.navy.mil). A commonly asked question is, "If they are known, why not adjust the model equations to remove them?" The answer is, if such changes were attempted without a careful and lengthy R&D effort, worse problems and tendencies would probably be created in other aspects of the model's predictions. Actually, "consistent" model tendencies are good. These consistencies allow a forecaster to become accustomed to how a model reacts under certain circumstances.

COAMPS is replacing the Navy Operational Regional Atmospheric Prediction System (NORAPS) as the state-of-the-art, high-resolution model for operations and contingency planning. Two areas are currently operational: Europe and Southwest Asia. A third, COAMPS Korea, is expected to be operational by the time this article is printed. Additionally, COAMPS Central America is under development. As with NORAPS, COAMPS can be run anywhere in the world. However, because of its non-hydrostatic nature, increased resolution, and terrain database, COAMPS requires more computer time than NORAPS. Furthermore, each regional model has its own set of consistent tendencies. As forecasters learn tendencies for the models in their areas of responsibility, they will gain proficiency in forecasting within their regions and become more familiar with mesoscale forecasting as a whole. The result will be increased accuracy and enhanced customer support.

For more information about FNMOC, or to view the products, visit the FNMOC homepage at **www.fnmoc.navy.mil** or **www.fnmoc.navy.smil.mil**. ▲



COAMPS' representation of terrain overlayed with outlines of the islands of Sardinia and Corsica.



18-hour forecast fields from 9-km resolution COAMPS grid over Saudi Arabia showing gust front and precipitation associated with a Mesoscale Convective Complex (MCC). Infrared (IR) satellite image shows associated cloud pattern.

NLMOC 'getting into' Year of the Ocean festivities

"The United Nations has declared 1998 the International Year of the Ocean as a celebration of this source of life and civilization. But this international year is also a reminder of the need to protect this most precious of resources, an affirmation of our commitment to safeguard the rights of future generations, for whom we hold our planet - and its life-sustaining oceans - in trust." Federico Mayor, Director-General of the United Nations Educational, Scientific and Cultural Organization (UNESCO)

As the U. S. Navy's purveyor of environmental forecast, the Naval Meteorology and Oceanography Command and the 1998 International Year of the Ocean are a natural partnership. In an all-out attempt to follow in the spirit of YOTO motto, the Naval Atlantic Meteorology and Oceanography Center is doing just that – "GETTING INTO IT!" Beginning in August, NLMOC hosted visitors for an educational and informative 60- to 90-minute presentation and facility tour.

The goal is to enlighten Tidewater area military commands, science teachers and area students about the ocean and the atmosphere through an interactive program designed to enable command members to share their knowledge of the environment with visitors. The sharing will be via a presentation consisting of segmented video clips interspersed with question-and-answer sessions.

We hope to reach as many as 10,000 students from August to December, through the in-house program and an extensive outreach program. NLMOC command members will venture into local schools with the presentation and video, converted into MPEG and presented on a laptop outfitted with a 3M 8640 projection system. This method of delivery will allow for display in virtually any environment, whether it be a small classroom or an auditorium – interacting with a few dozen children or a few hundred.

The idea and information exchange will focus on the ways the ocean and atmosphere interact to affect our daily lives and Naval operations. Specific topics for presentation and discussion will include, "Be an Oceanographer in Space," "Learn about El Niño," "Fly Inside a Hurricane," "Experience Rogue Ocean Waves," "Ride the Gulf Stream," "Hide a Submarine From Detection," "See Jellyfish Glow in the Dark," "Map the Ocean Floor" and "Fly Through an Undersea Canyon."

Those who want more information on the NLMOC program are invited to contact LT Carlo Lombardo at DSN 564-8730, or e-mail **lombardo@nlomoc.navy.mil.**

The UNESCO declaration gives us all the opportunity to raise public awareness of the role the ocean plays and to encourage our children to enter the sciences and to begin the necessary changes needed to maintain and nourish the oceanic resources on which we all depend. ▲

Cosby travels to England with JASON

by ENS Bob Cosby

ENS Bob Cosby traveled to RAF Lakenheath as the "resident scientist" for students participating in JASON IX via the Lakenheath Primary Interactive Network Site (PINS) located at the Lakenheath High School.

His job was to answer questions, encourage student interaction, and operate various parts of the interactive communications system, which enabled students to participate directly in the JASON Expedition.

The JASON Project, designed to get young people excited about science and technology, is an annual event that takes students, via live interactive video, to locations they otherwise would not have the chance to see. JASON trips have included visiting shipwrecks in the Mediterranean, geysers in Yellowstone National Park, and the depths of Monterey Canyon. Dr. Robert Ballard founded the program in 1989.

JASON IX celebrated the Year of the Oceans this year by studying and exploring two very different underwater ecosystems – the coral reefs of Bermuda and the kelp forests and deep waters of Monterey Bay. Select scientists, teachers, and students from the United States, Mexico, and DODEA participated directly in the exploration. The expeditions were broadcast live to the 28 PINS throughout the United States, in Monterrey, Mexico, and at Lakenheath, England.

The JASON IX broadcast ran every day except Sunday from the March 16 through 27. The Lakenheath PINS received the live satellite feeds originating from the Monterey Bay Aquarium Research Institute, which were simultaneously projected on three large screens in the high school auditorium. Five one-hour live shows commenced each day in the mid-afternoon, England time. Because of the time difference, taped shows were played for students during the morning hours.

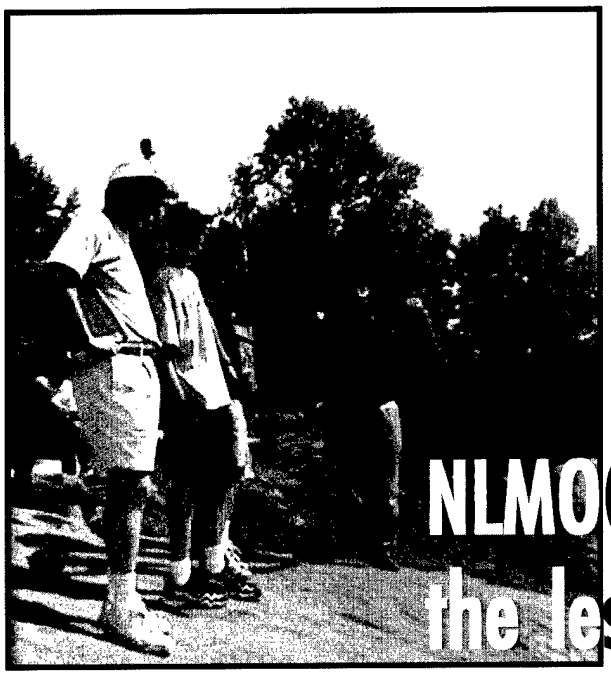
During each show, students not only watched live broadcasts, they also interacted directly with the activities in either Monterey Bay or Bermuda through a special "Question & Answer" computer network. This allowed students to ask the on-scene scientist questions that were answered live, within minutes of being asked. Additionally, during specified times, students could "drive" remote cameras located in Monterey Bay and Bermuda, again using a special computer network.

The live shows were interactive, impulsive, and informative. Each followed a basic format, but because it was live, no two shows were the same.

JASON IX did not end with the last show on March 27. Ballard and his team of scientists went to the Guaymas Basin in the Sea of Cortuz on April 17. Sponsored by the Office of Naval Research, the team took an in-depth look at the hydro-thermal vents common in the region and the life forms that live in this hostile environment. Students and anyone else can keep up with the project from the JASON IX webpage at **www.jasonproject.org**.

For Cosby, JASON was an unforgettable experience. JASON X is scheduled to go to the rain forests of South America and explore the most biologically diverse land area on our planet.

NLMOC won't have to wait until next year to benefit from this year's JASON Project. The experience gained from interacting with more than 2,000 students in England will be applied directly to this year's celebration of YOTO in Norfolk. ▲



The Battle of Gettysburg, July 1 through July 3, 1863, evolved more by chance than planning and was won and lost by both sides a number of times, until Gen. Robert E, Lee ended the question of victory or defeat with a massive infantry assault better known as Pickett's Charge. In the minutes that followed, Lee snatched bitter defeat from the jaws of victory and forever ended any real hopes the Confederacy had for winning the war. The Army of Northern Virginia was shattered, and never regained its stature, reputation or the offensive.

NLMOC leaders study the lessons of Gettysburg

CAPT Tom Donaldson, Michael Toll, CDR Ray Toll and Professor Jim Stefan on Little Round Top.

by LT Carlo Lombardo, Naval Atlantic Meteorology and Oceanography Center Public Affairs Officer

Gettysburg – The name evokes reverence and awe in all who know the story. It was a place of bloodshed and tragedy. But today this series of low rolling hills and pastures, interspersed with rocky outcrops and stonewalls, is a tranquil setting dotted with too many monuments to count – arguably the most hallowed ground in the nation.

On May 15 the wardroom at Naval Atlantic Meteorology and Oceanography Center organized a Professional Development Day at the Gettysburg National Park in an effort to gain first-hand knowledge of the history, the men and the deckplate lessons in leadership.

Led by Prof. Jim Stefan of the National War College, we found ourselves involved not only in a lesson in history and leadership, but a profound expedition into the past.

However, the true reward of Gettysburg is not simply walking in the footsteps of history, it is in taking the opportunity to look and listen – to become benefactors of the hard-earned lessons in leadership that Gettysburg represents.

The diverse group of 35 active-duty and reserve military and civilians who made the trek all took something different from the expedition but were in agreement on the value of the experience.

LCDR Rick Fritsch: "When Cemetery Hill was not taken by the Confederates because Lee's underling (Lt. Gen. Ewell) did not know what Lee meant when he said, 'if practical.' It dramatically demonstrated the need to understand what your superiors want and mean. Leadership Secrets of Atilla the Hun said it better than I: 'Critical to a Hun's success is a clear understanding of what the King wants.'"

LT Eric Holweg, speaking of Lee's "coordinated" attacks of the second and third days: "In combat, even the best laid plans are extinct seconds after their birth."

CDR Chuck Weigand USN (RET) discussing the fog of war: "Even the finest leaders can err under adverse conditions. Gen. Robert E. Lee was undeniably the Confederacy's, and perhaps the nation's, finest general – a proven leader in many campaigns. He lost the day at Gettysburg through inadequate intelligence, which led him to poor decisions at the Confederacy's most supreme moment."

AGCM Ron Brady, Command Master Chief, NLMOC: "Gettysburg was about inspiring and motivating men for

Continued on page 18

Continued from page 17

battle. There were numerous examples of exceptional leaders making daring calls during those three days in early July 1863, but the one person who clearly stood out was Gen. Robert E. Lee. A brilliant strategist who often went into battle as the underdog, frequently snatching victory from superior (in number) Northern forces, Gen. Lee possessed an innate ability to get the most from all with whom he served. It was not leadership but communications (that) ultimately cost Lee the battle. Had it not been for poor communications on the second day of Gettysburg, we might be whistling 'Dixie' instead of singing 'The Star Spangled Banner.'"

CDR R.F. Toll, Executive Officer, NLMOC: "Leaders are not always heroes, but heroes are typically good leaders. In the case of Gettysburg, leaders and heroes were synonymous. It was a trip of a lifetime, one that I will never forget."

CAPT T. Q. Donaldson, Commanding Officer, NLMOC: "Pickett's charge represents many things to me – incredible courage and inspirational leadership. But most significant is the defining moment of a Revolution in Military Affairs (RMA). The conduct of land warfare changed on July 3 at Gettysburg. Napoleonic infantry tactics succumbed to accurate long-range rifle and artillery fire. Pickett's charge was doomed from the start, and no amount of courage could change the outcome. Gen. Longstreet understood this before the charge; Gen. Lee understood it after the charge."

LT Carlo Lombardo: "When I consider all that Gettysburg represents, the battle comes down to a few key lessons. But perhaps the most important occurred on the second day. Col. Joshua Chamberlain and his 20th Maine were the extreme flank of the Union Army, and as the afternoon sun of July 2 began to fade into evening, the 14th Alabama gathered itself for one last assault on the rear of the Little Round Top. If the 20th Maine gave way, the Confederates would literally have been in position to roll up the side.

"Chamberlain's genius was manifested that day when he demonstrated a keen understanding of the moment – an understanding of such clarity that few will experience it in a lifetime. Faced with insurmountable odds, he could not stand and fight, for he would be overwhelmed, and he could not retreat, for that would expose the entire army's flank. So, he ordered 'fix bayonets' and swept a superior foe from the field, leading a charge, which became immortal. The lesson? Audacity and courage of conviction. Providence willing, none of us will face such a supreme moment. But, if we do, knowing the story of Little Round Top may just be the insight, the lesson, that pulls us through. We speak and write about core values, but these men left a legacy that transcends our poor attempts to verbalize and give meaning. A lesson in leadership to which we should all aspire." ▲

Hurricane Hunters visit South Texas

by AG2 Kirk S. Sullivan

A National Oceanic and Atmospheric Association (NOAA) WP-3 Orion hurricane-reconnaissance aircraft from the Hurricane Research Division of National Hurricane Center visited Naval Air Station, Corpus Christi, Texas on April 23 in conjunction with the 1998 Gulf Coast Hurricane Preparedness Tour.

In an effort to prepare coastal bend military and civilian residents for the 1988 hurricane season, several activities were available to educate the public about hurricane risks and to inform residents about what to do in the event of a hurricane. On hand were local National Weather Service personnel, Corpus Christi emergency management officials, a local amateur radio operating organization, the Coast Guard, Red Cross, Salvation Army and Naval Training Meteorology and Oceanography Detachment, Corpus Christi personnel.

AG2 Kirk S. Sullivan and AG2 Kimberly A. Marsh manned a display that included a Power Point presentation. The presentation focused on general tropical cyclone information, evacuation procedures and the responsibilities of the Officer-in-Charge, NAVTRAMETOCDET Corpus Christi when recommending setting Tropical Cyclone Conditions of Readiness.

The exhibit was presented to various public officials, military and local residents, and nearly 600 elementary school students. AG1 Terry D. Crain, AG2 Eric Garcia and Richard Stegall helped assemble the display.

The one-day hurricane awareness presentation was a first for Corpus Christi and is slated to return to South Texas every four years. ▲

AG2 Kirk S. Sullivan and AG2 Kimberly A. Marsh wait for visitors at their hurricane display at the 1998 Gulf Coast Hurricane Preparedness Tour.

18 June 1998 – A not so typical day in Key West

by Alan K. Ceier and AG2 Chuck Browder

The day started out typically for a spring day in the Florida Keys, with partly cloudy skies and a light northeast to east wind of six to 10 knots. The temperature was 79°F (26°C) with a relative humidity of 77 percent.

By early afternoon, fair weather cumulus had developed into cumulus congestus and a towering cumulus of moderate to great vertical extent and isolated cumulonimbus without anvil tops. The temperature climbed to 90°F (32°C) and the relative humidity dropped to 72 percent, conditions that would bring unexpected and severe weather to the local area.

At 3:15 p.m. local, the duty section issued Thunderstorm Condition of Readiness One for one hour and 15 minutes, calling for maximum cloud tops of 39,000 feet, wind gusts to 22 knots, dangerous lightning, and possible formation of funnel clouds and waterspouts.

At 3:18 p.m., eyewitnesses reported that a tornado had touched down in Key West. Thunder was not heard at NAS Key West; however, lightning was indicated on the LPATS. No Mesocyclone (MESO) or Tornadic Velocity Signature (TVS) was indicated on NEXRAD, and the maximum DBZ never exceeded 59 for the entire weather episode.

The funnel cloud-waterspout-tornado-waterspout-funnel cloud formed over the U.S. Navy housing Sigsbee Park, based on accounts from personnel working at Sigsbee Marina, 3½ miles west-northwest of NAS Key West. It then crossed over Sigsbee moving south-southwest before touching down. Accounts differ as to whether a waterspout moved ashore or the funnel touched down on shore. The funnel's first observed landfall was near Scotty's Lumber Yard, on North Roosevelt Boulevard.

The tornado then moved across North Roosevelt Boulevard to the Overseas Market parking lot, over Winn-Dixie to the civilian housing area between 10th and 12th streets. Enroute it broke tree limbs, uprooted small trees and shrubs and damaged small metal storage sheds before peeling off roofing shingles and some subsurface roofing lumber from a house on Flagler Avenue. The tornado then continued south-southwest over the Key West Airport before dissipating south of South Roosevelt Boulevard over open water.

The total distance traveled on water and on shore was 2½ to three miles. Based on damage observed by Naval Atlantic Meteorology and Oceanography Detachment personnel shortly after the occurrence and reports in the local news, the tornado was estimated to be a strong F0 to weak F1 on the Fujita Scale.

The Florida Keys are the greatest natural vortex laboratory in the world. Waterspouts occur more in the Florida Keys than anywhere else in the world, especially from Marathon past Key West on the westward to the Dry Tortugas. The Florida Keys see 400 to 500 waterspouts a year. Waterspouts moving ashore are a rare occurrence, however.

Water spouts and funnel clouds are most frequently observed in the middle and lower Keys during the late spring and summer months. They tend to occur most often north of the islands, more so than directly over or south of the Keys. Contrary to popular belief, funnel clouds and waterspouts are not always associated with thunderstorms. More often than not they are associated with cumulus of little vertical extent (Cu) to moderate or towering cumulus (TCu), and give little or no warning to their formation.

The tops of clouds that spawn waterspouts in the Keys are generally anywhere from 6,000-22,000 feet/2,000-6,100 meters high (Cu-Tcu). The bottoms are usually between 1,500-3,000 feet/500-1,000 meters above the surface. Waterspouts are most likely to form when the clouds are growing.

In the Keys, waterspouts have been observed forming from 7 a.m. through sunset but they most often form between 4 p.m. and 7 p.m., as with the June 18 tornado, with a secondary maximum from 11 a.m. to 1 p.m.

In the "Lower Keys" both funnel clouds/waterspouts and lightning have been observed from fair weather cumulus clouds of little vertical extent (Cu). Watch-standers must always keep a vigilant eye on any cloud development because of the explosive nature of connective activity in the lower Keys. In this case, what had been a "typical" partly cloudy day rapidly turned into a short-lived national news item broadcast on CNN. ▲

NPMOD Whidbey Island takes a hike

by AG1(AW) Jeremy D Hawkins

It was a damp and foggy morning as all hands stared at a satellite picture of our chosen destination – Hurricane Ridge, which stands approximately 6,400 feet high and is located on the northeastern side of the Olympic Mountain Range, southwest of NAS Whidbey Island.

The Olympic Mountains, and Hurricane Ridge in particular, play very prominent roles in the weather that occurs on Whidbey Island and the rest of the inland waters of western Washington. Mesoscale meteorological features such as the lee-side trough, Puget Sound convergence zone, and the Olympic rainshadow are all related to the interaction of the synoptic scale flow and the Olympic Mountains.

To fully appreciate these features, one must see them first-hand, and that is what we set out to accomplish.

AG1(AW) Jeremy Hawkins (left) and STGC(SW) Chris Dyas on the Grand Trail overlooking Deception Ridge.

Starting at 0700, three carloads of NPMOD Whidbey Island personnel and their family members set out for Blue Mountain, the northeast terminal of Hurricane Ridge.

After a ferry ride off the island and a drive of 40 to 50 minutes we arrived at our destination, the northeastern portion of the Olympic National Park.

Standing on the first ridge, next to a trailhead appropriately named Rainshadow Trail, we got our first glimpse of the dramatic elevation difference between the eastern Olympics and the lowlands surrounding the Puget Sound and the Strait of Juan De Fuca (a 6,000-foot drop in less than five miles). At this point, we could almost feel the effect it has on the weather as the wind rushes over and down the mountainside. Of course, to the family members, this was nothing more than a really high mountain with a fabulous view, but to the Aerographer's Mates, it meant more.

Looking down the mountain to the lowlands, we could appreciate the shear force of the lee side low-pressure trough, created as storm-force winds flow over the Olympic crest. The flow creates both the lee-side trough along the base of the mountains (which can and often does, cause winds up to gale force over Whidbey Island) and the rain shadow effect caused by the strong subsidence downwind of the mountains. As a result we're often dry at NAS Whidbey Island while other areas are drenched in rainfall.

After a brief discussion about the affects the mountains have on the mesoscale meteorology of the region, we set off again on the second half of our journey – an eight-mile round-trip hike toward Obstruction Point.

Arriving at the trailhead, we strapped on our packs, filled our water bottles and started off with family members in tow. The trail was fabulous, not too difficult to climb and it offered awesome views of the various Olympic Mountain peaks, such as Mt. Olympus, the tallest in the Olympic Range.

During the hike we got the chance, as a command, to enjoy the beauty of the region and catch a glimpse or two of some of the region's many animals, such as the Roosevelt elk and the black-tail deer.

After a long day of hiking and sight-seeing everyone was truly exhausted but there were no regrets. Together we got to not only enjoy the great region in which we were lucky enough to be stationed but also to have a better understanding of how the Olympic Mountains affect us and the weather in western Washington. This valuable lesson will do nothing but improve the already outstanding meteorological support that NPMOD Whidbey Island provides the Department of the Navy, DOD, and various civilian agencies in the Pacific Northwest. ▲

NPMOC embraces Covey: Leadership to help prepare leaders for the 21st century

by LT Jim Tannahill

Ten years ago, our skipper, CAPT W. Tyson Aldinger, and his wife were at a bookstore when he literally ran into the book, *The Seven Habits of Highly Effective People* by Dr. Stephen Covey. He picked up the book, scanned the pages and couldn't put it down. He has had it on his desk ever since and has made it "required reading" for all of us in the wardroom.

Earlier this year, Aldinger and LT Jim Tannahill had the opportunity to attend a Franklin-Covey Facilitator Course with 22 other military and civilian individuals from various organizations around Hawaii.

Attendees focused on Covey leadership principles and qualified as facilitators for Covey's "First Things First," "The Seven Habits of Highly Effective People," and "Principle-Centered Leadership" courses. The workshop provides methods to develop life leadership through focusing on principles and building relationships on trust.

Tannahill, with knowledge in hand, also was ready to begin facilitating. Facilitating utilizes many traditional means to convey the material, but the thrust of the exercise is to immerse the participants in the learning process. The students are not only taught, they also teach, reflect, brainstorm, discuss, apply the material, and gain insight from the other students. The facilitator gains new insight from the participants – the teacher remains always a student.

NPMOC hosted its first workshop at the Hawaii Air National Guard Cafeteria on Hickam Air Force Base in May. For three days, 13 NPMOC and 11 CINCPACFLT personnel learned life leadership. Aldinger and Tannahill are licensed and available to teach curriculum to all Navy commands on Oahu as well as the CNMOC subordinate organizations.

Guest facilitators included Maj. Bill Petti of the Hawaii Air National Guard's 154th Support Facility and Marsha Washington of the Air Force's 15th Civil Engineering Squadron.

Kelly Sedlacek from the CINCPACFLT Quality Office, helped set up the win-win deal with NPMOC. "I was looking for an opportunity to start the CINCPACFLT program, when Jim Tannahill gave me a call," Sedlacek said.

The course was voluntary and required participants to take time out of their schedules to reflect on themselves and their relationships.

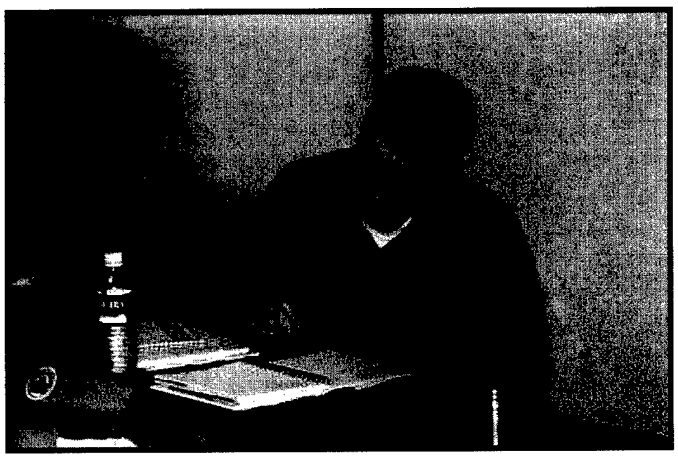
"I'm glad my command gave me three days away from work to focus on my personal development," said AG1(AW/SW) Robert Picchi, a team forecaster from NPMOC.

LTJG. Rick Mohammed also liked the course. "It was much better than I anticipated, and I especially enjoyed having time to work on a personal mission statement," he said.

For follow-up, they will bring the original course participants together in August to see how many of the principles the participants have incorporated into their lives. It is apparently working institutionally as NPMOC was recently recognized as DOD Total Quality Success Story, as well as

Continued on page 22

ENS Stephanie Belcher and CTA1 Deme Allen (CINCPACFLT) discuss material during an exercise.



LT Rick L. Baker reviews course material

Continued from page 21

the COMNAVBASE nominee to the Federal Executive Board for Organizational Excellence.

In western culture today, and more so the Navy's culture, increased focus is being put on corporate mission. For three days, NPMOC gave some of its personnel the opportunity to focus inward and answer personal questions like, "Who am I?" "Where am I going?" and "What do I want to be?"

NPMOC leaders have recognized that developing their personnel means a better command and a better Navy. The principle-centered leadership is a move into the 21st century. ▲

NPMOC – a TQL success story

by LT Randall Billy

How many times have you heard it: "Total Quality (TQ) just doesn't work." Ask the personnel at Naval Pacific Meteorology and Oceanography Center (NPMOC), Pearl Harbor, and you will hear otherwise.

The command was recently recognized with two distinctions in this area of applied leadership.

First, Commander in Chief, Pacific Fleet (CINCPACFLT) designated NPMOC as a "Total Quality Success Story" to the Office of the Secretary of Defense for commitment to continuous process improvement. Success stories are considered to be team- or organization-wide activities that address and resolve problems or improve processes.

Second, Commander, Naval Base (COMNAVBASE), selected NPMOC as his nomination for the Federal Organizational Excellence Award given by the Hawaii State Federal Executive Board (FEB).

For years NPMOC made little modification to the products offered. In 1997 NPMOC's Executive Steering Committee (ESC) recognized a need for change and chartered a Quality Management Board (QMB) to evaluate and improve the NPMOC product suite in view of customer needs.

The Production QMB (QMB), comprised of junior officers and enlisted personnel from the operations, fleet services and technology services departments, was chartered and set to work. The group's notable achievements included a shift from hand-drawn to digital-forecast products, generation of a graphical Enroute Weather Forecast (WEAX), restructuring of the watchbill to the customer's needs, and redesign of the forecasting watchspaces.

Members of the Office of the Secretary of Defense Quality Management (OSD/QM) visited NPMOC in March to be briefed on its success. Members of the Production QMB shared their achievements and lessons learned with the guests. The presentation was given by several of the QMB's key people – LTJG Keith Barto, AGC Nancy Mckeown, and AG1 Zachary Phillips. QMB team members used the Total Quality philosophy of collaborative leadership and applied management tools to work through the progression from canvassing the waterfront for customer feedback to re-engineering the forecast product suite.

The second distinction came in May when NPMOC's Production QMB was nominated by COMNAVBASE Pearl Harbor for the Hawaii Federal Executive Board's (FEB) Annual Awards in the Federal Organizational Excellence category. The FEB seeks to improve coordination and communication between federal agencies and activities. The annual awards ceremony, held May 27, was an opportunity to publicly recognize those individuals and groups within the federal community that have done the most to make government service more efficient and cost-effective. NPMOC's QMB was selected over all other Navy commands in Hawaii. The QMB was represented by several team members – AG1 Robert Picchi, AG1 Anne-Marie Millison, AG2 Keith Chevalier, ET2 Al Leyendecker, AG3 Reese Brown, TQ facilitator LT Randall Billy, and Commanding Officer CAPT Ty Aldinger.

Although the Army took home the honors, the team received an Achievement Award to recognize the outstanding contribution to re-engineering government service.

The personnel from NPMOC have reshaped the traditional approach to Navy meteorology and oceanography forecasting methods and products. The ideas and initiatives came from the deckplates—those working on the watchfloor. NPMOC personnel are continually redefining their support to anticipate the demands of tomorrow's Navy by embedding TQ into the fabric of the command.

So if you ask us—TQ just DOES work! ▲

NPMOCW/JTWC gets involved in local schools

If April showers bring May flowers, what do May flowers bring? For the Sailors and Air men at Naval Pacific Meteorology and Oceanography Center – West/Joint Typhoon Warning Center (NPMOCW/JTWC) May flowers meant Mother Nature granted a slight reprieve before the upcoming busy West Pac typhoon season. And with the extra time and energy, NPMOCW/JTWC has gotten involved with local schools to promote both the military and meteorology.

Cinco de Mayo was celebrated with the island-wide Leadership Day, sponsored by the Department of Youth Affairs (DYA). And the NPMOC/JTWC Commanding Officer and Command Master Chief sponsored a highly motivated local middle school student, in order to expose the student to the management and operations of the Navy and the local command.

Kate Eserjose, an eighth grader at Oceanview Middle School in Guam, started her day attending a Base Realignment And Closing meeting with CAPT Cynthia Dillon, the Commanding Officer. During the next few hours Eserjose sat in on a conference with NPMOF Yokosuka, toured the operations and JTWC watch floors, ate lunch at Top-of-the-Mar Officer's Club and then enjoyed an eventful afternoon.

The remainder of the day started with a Department Head meeting and was followed by a training brief conducted by AG watchstanders. The afternoon concluded with a social at the Governor's House, which both Dillon and Eserjose attended.

NPMOCW/JTWC personnel also participated in the Simon Sanchez High School Career Day, not as representatives of the Navy and Air Force but as meteorologists.

LTJG Paula Hildebrand and AG2 Matt Shiels talked to two classes of 11th and 12th graders who expressed an interest in the weather and career field of meteorology. The students asked questions ranging from, "What is El Niño?" to "What helps you make a forecast?" The weather team demonstrated a typhoon plotting exercise that used positions from Super Typhoon Paka's track as it approached Guam. Additionally, Hildebrand showed overhead projector slides of visible and infrared satellite imagery as well as special sensor microwave imagery and scatterometer data.

"We talked about what information you can gather from each type of imagery. For example, infrared imagery is used during night times, and visible will allow you to discern between cloud types," Shiels said.

He also said that he enjoyed "discussing (his) experiences with meteorology and sharing what interests (him) the most about weather." He also explained how the center uses NOGAAPS fields to predict weather from Saudi Arabia to Alaska and discussed how advances in computers and technology will affect the weather community.

As a sponsor for the Mountain Climbers Club, a group designed to encourage improved GPAs among local students, NPMOCW/JTWC Commanding Officer and Partnerships-in-Education. Representatives issued more than 70 certificates in February to students who improved grades from a "C" and below to a "B" or better. This year, the program's first, was successful with help from the community.

At an awards ceremony the vice principal, LT Debbie Vidosic (an NPMOCW/JTWC representative), and counselors from the school passed out achievement certificates signed by Dillon and the school principal.

Dillon also spoke at the DODEA High School Guam National Honor Society induction that saw 13 new members. The 13 joined the four existing members at the ceremony, which highlighted the NHS principles of scholarship, leadership, service, and character. This was the first year for the DODEA High School on Guam.

Although BRAC plans have kept all on their toes at NPMOCW/JTWC, the Sailors and Airmen have found time to help the community.

"The community service board always has opportunities where we can help the community. Whether it is judging at the Science Bowl or volunteering for the Special Olympics, giving to the people of Guam is something I really enjoy," said Senior Airman Dionne Tirschel, a Typhoon Duty Assistant at JTWC and an active volunteer.

So the next time you pass through Guam, stop by NPMOCW/JTWC, join the fun and sign up for a community service activity. ▲

NEMOC explores the oceans at Expo '98

by LT Christopher A. Linder, Naval European Meteorology and Oceanography Center Public Affairs Officer

This year, from May 22 until Sept. 30, visitors to Lisbon, Portugal were able to experience all facets of human interaction with our oceans through the World Expo '98, the last world's fair of the millennium.

On the shores of the Tagus River, stretching for 1.5 miles, the grounds of Expo '98 are filled with activities and adventures supporting the theme, "The Oceans: A Heritage for the Future." A total of 154 countries are represented, the largest number ever at a World's Fair.

The idea for Expo '98 originated in 1989, when two Portuguese gentlemen were planning a celebration to commemorate the achievements of Portuguese oceanic explorers in the 15th and 16th centuries. Their idea was to combine the festivities of the fifth centennial of Vasco da Gama's monumental voyage to India with an ocean-themed world exposition.

In 1992, the Paris-based Bureau International des Expositions selected Lisbon as the 1998 site. The process set off a major rebuilding phase in Lisbon, with the aim of converting a mile and a half of Lisbon's most unsightly riverfront property into the Expo site.

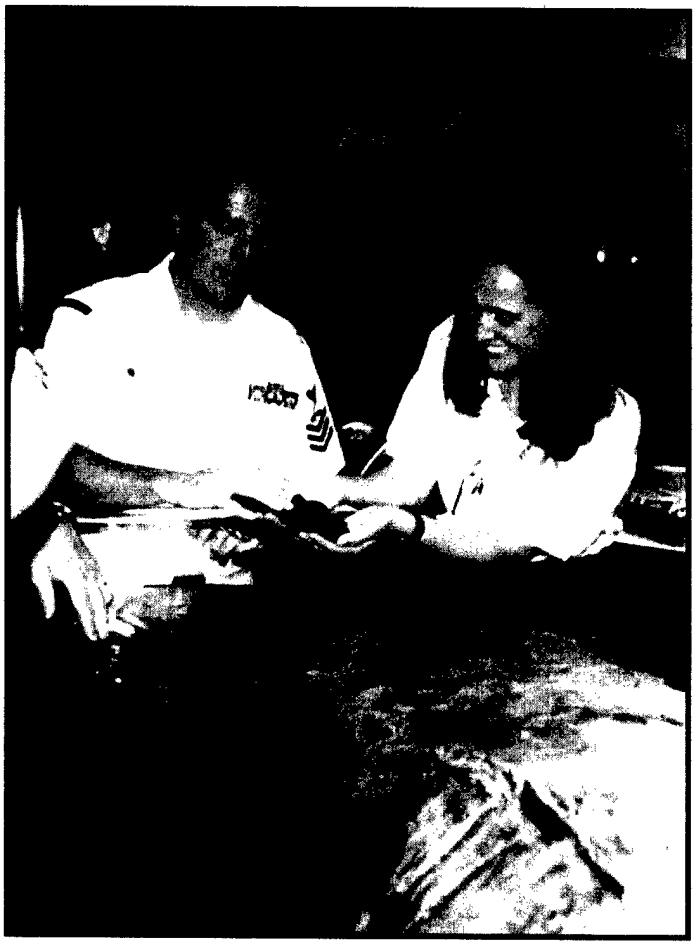
1998 also makes history as the International "Year of the Ocean," as designated by the United Nations. This is the first time a World Expo theme has coincided with a United Nations International Year theme. The Navy's contributions to the Year of the Ocean can be found in the April 1998 issue of All Hands magazine.

About 15 million visitors were expected during the Expo's 4½ month-run. The five theme pavilions, built by the Portuguese, are aimed at educating or entertaining with oceanographic themes. These include a stage performance, an aquarium, a virtual reality experience and two educational pavilions. Individual countries have each set up their own pavilions, most of them focusing on how their country interacts with the oceans.

The United States Pavilion showcased U.S. organizations dedicated to studying and preserving the oceans. The pavilion was divided into four separate areas: the Hall of Discovery, Ocean Awareness, Oceans Theater and Ocean Environment.

Visitors first entered the Hall of Discovery, which included nine exhibits with interactive elements, spanning a wide variety of U.S. oceanographic concerns. Next visitors proceeded to the Ocean Awareness room, where two of the United States' leading oceanographic research institutions, the Woods Hole Oceanographic Institution and the Scripps Institute of Oceanography, had displays on their current research. Finally, a display area was reserved for one of three U.S. states with significant Portuguese populations: Massachusetts, Hawaii and California.

The 120-seat capacity Oceans Theater showed an eight-minute film created by the Woods Hole Oceanographic Institution, narrated by Jean-Michel Cousteau. It featured footage of the *Titanic* wreckage and sea life from the bottom of the Atlantic.



AG1 John Reinhardt and a U.S. Pavilion employee holding a California brown sea hare.

The final stop at the U.S. Pavilion was the Ocean Environment room. The major contributors here were U.S. Navy, National Oceanographic and Atmospheric Administration and the U.S. National Institute of Environmental Health Sciences. Visitors could appreciate deep-ocean exploration by looking inside the full-size replica of the deep rover submersible.

"U.S. National Day was definitely the highlight of my experiences at the Expo. It was fascinating to see the reactions of other countries to the parade sponsored by the U.S. Pavilion. Being stationed in Europe has given me the opportunity to see how some countries interact with one another and to realize that those interactions are not always pleasant. It seemed that people of all nationalities flocked to the waving of American flags and the playing of 'America the Beautiful,'" said ET2 David Stuart, a Naval European Meteorology and Oceanography Center Sailor who visited the Expo.

The highlight of the Ocean Environment room is a large "touch tank" full of *Aplysia californica* (California brown sea hares). Researchers used the animals extensively in studies of developmental biology and the nervous system.

For the duration of Expo '98, NEMOC is representing the United States Navy at the United States Pavilion. While the U.S. Pavilion is open, a NEMOC Sailor will man the Ocean Environment Room answering questions about the Navy's role in protecting the freedom of the seas, exploration and research of our oceans and pollution abatement. Two NEMOC Sailors participate every two weeks, which gives them a great opportunity to interact with the thousands of international visitors.

AG1 John Reinhardt found that "in addition to oceanography questions, many visitors were interested in Navy life in general – where I was from and life in America. It was a great opportunity to meet peoples of all nationalities and relate to them my experiences in the Navy and growing up in America." ▲

Don't call DC, we ain't there!

We are online in Memphis; eating BBQ, fishing and singing the Blues...here's the information you need: **(PLEASE NOTE THESE CHANGES)**

Mail Address: Bureau of Naval Personnel (PERS-449)
5720 Integrity Drive
Millington, TN 38055-4490

FEDEX/UPS
Packages: Bureau of Naval Personnel (PERS-449)
The Whitten Building 791 (Room E201C)
5750 Commitment Loop
Millington, TN 38055-4490

Phones: 901-874-4109(CAPT)/4110(LCDR) DSN: 882
(Central Standard Time)

Fax: 901-874-2711

E-mail: **P449** or **P449b@PERSNET.NAVY.MIL**

Congratulations to our New 0-5 selects

Christopher Lyn Abbott, Frank William Baker Jr., Jessie Caton Carman, Stephanie War Hamilton, John Edward Joseph, James Michael Olson, Ernest Paul Petzrick, Raymond Mark Robichaud, Donna Marie Senglaub, Kenneth Allen Wos, and Joseph Amos Yetter Jr. are the new 0-5 selects. They will be promoted in FY99.

Meeting with Us

We welcome all of you to Memphis on your cross-country trips but realize that many do not have the time to stop. That is why it is so important to stay in touch to set up interviews during our detailing trips. We will do a EUCOM/CENTCOM trip in late summer, West Coast in late fall, and Hawaii/WESTPAC in winter. Also keep in mind we are a short six-hour drive up from Stennis, so if you are back in "Mecca" please consider an extra leg in your travels.

The PACOM Reorganization

We have completed our PACOM reorganization and associated manning. We still need a few high quality officers for duty at the new center in Yokosuka, but we expect that some of our new ocean-option officers will fill those slots.

All of the remaining officers in Guam will roll in the 9905 timeframe to various jobs around the claimancy. In Hawaii, we filled all of the JT/Pearl billets and will not order any new officers into NPMOC Pearl for at least two years. We will detail four new officers into the Northwest – CO, XO, OPS and MET.

We also have begun focusing on the new center in San Diego. If San Diego is a location that you would like in the 9910 timeframe, let us know so we can include you on the potential slate.

FY00 Boards, Zones, and Your Participation

All of our future boards will be conducted in the newly constructed Building 789 at NSA Millington. The NAVADMIN, which defines the FY00 promotion zones, will be released in December 1998.

Please make sure that your record is correct and up to date. The move to Memphis and the digitizing of records has resulted in some unreadable records. It is **your responsibility** to order your fiche and review your record. We recommend doing that three to six months before the board meets.

The following board dates have been announced for next year:

Oceanography Command Screen	13-16 OCT 98
PhD	14-16 OCT 98
Transfer/Redesignation	19-30 OCT 98
Active 0-6 Line	12-22 JAN 9
Scholarship	16-19 FEB 99
Active 0-5 Line	23 FEB - 12 MAR 99
Permanent Military Professor	15-19 MAR 99
Transfer/Redesignation	19-30 APR 99
Active 0-4 Line	20 APR - 7 MAY 99
Active 0-3 Line	2-6 JUL 99

Now that BUPERS has relocated, we will be looking for officers (01-06) from around the claimancy to support the selection boards. In the past, we have relied on locally based DC officers, but that is no longer an option. Now more than ever, you will have opportunities to see the selection board process first-hand.

For junior officers, please let your chain of command know that you would like to participate. XOs, please prepare for the phone calls asking for recorder requirements.

For senior officers, we can no longer rely on the large pool of local DC officers. We will call more often and to all locations. We appreciate your assistance in helping us meet these board member requirements. **Note:** The selection board coordinator has already mentioned to us that the closest concentration of naval officers is at Stennis. We may be requested to provide support for more boards.

The Homepage

We have a new server and webmaster in Memphis; we appreciate your patience. The MS Excel listings come directly from our computer base and are as accurate as the command diaries that update them. The BUPERS database tracks daily. For example, if you were at an intermediate stop enroute to your ultimate command on the day the data run was made, then your command will read that intermediate stop. Visit us at **www.bupers.navy.mil**. (navigate to **p449**). Our homepage as well as the BUPERS homepage continue to be a great source of information. E-mail (**p449** or **449b @persnet.navy.mil**) remains a very reliable means of communication. ▲

Hot Fills

We've got great jobs in some wonderful places. The following table also appears on the homepage. Please watch for updates.

RANK	OPEN	COMMAND	TITLE	LOCATION
CDR	NOW	N096	BRANCH HEAD	DC
CDR	9810	NWC	OCEAN CHAIR	NEWPORT
CDR	9810	NRL DC	MIL DEP	DC
CDR	9809	FNMOC	DH	MONTEREY
CDR	9810	CNMOC	N5	STENNIS
LCDR	9810	CNMOC	N5	STENNIS
LCDR	NOW	N096	ACTION OFF	DC
LCDR	9807	NRL	PROJECTS	STENNIS
LCDR	9812	NPMOD	OIC	DIEGO GARCIA
LT	NOW	NPMOC	CDO (5)	YOKO
LT	NOW	NEMOC	CDO (3)	ROTA
LT	NOW	FNMOC	CDO	MONTEREY
LT	9903	NPMOD	OIC	ATSUGI

Changes come to enlisted BAS and BAH

WASHINGTON – At least 35,000 Sailors will soon see a change in their paychecks due to a policy change in Basic Allowance for Subsistence (BAS) and Basic Allowance for Housing (BAH).

First announced in NAVADMIN 122/98 and implemented in NAVADMIN 172/98, the change applies to Sailors receiving BAS and BAH at their Permanent Duty Station (PDS) who deploy or are temporarily assigned away from their PDS, such as Sailors assigned to air wings, Seabee and SEAL units, and helicopter detachments. It does not include Sailors who have a ship as their PDS.

On average, these enlisted Sailors will pocket about $43 (in the case of separate rations (SEPRATS) after automatic payment of meals.

The policy change implemented by NAVADMIN 172/98 was the result of the FY98 National Defense Authorization Act (NDAA) in BAS and BAH entitlements for enlisted Sailors. Section 605 of the FY98 NDAA mandates certain elements of compensation, including basic pay, BAS and BAH, not be reduced during a period of assignment away from the PDS. This change was effective Jan. 1.

While eligible Sailors will receive full BAS, they will be charged for all meals made available by the government, whether eaten or not, at the discount meal rate, which is currently $6 per day.

Implementation of this policy will occur in three phases. The retroactive payment phase was Jan. 1 to July 31, interim procedures phase from Aug. 1 to around Dec. 31 and the final implementation phase will begin approximately Jan. 1, 1999. These changes will be in effect until the final BAS reform is completed sometime in 2003.

Identification of Sailors eligible for retroactive payment will occur during the interim procedures phase. The goal is to process and reimburse retroactive payments prior to the end of FY98 to avoid crossing fiscal year appropriations.

The retroactive payment phase requires reimbursement to members whose full BAS or BAH was stopped due to temporary assignment away from their PDS. This will require field input using Defense Finance and Accounting Service (DFAS) file search print-outs to help identify affected Sailors. Those Sailors are enlisted members (E-1 to E-9) whose BAS was reduced from full to partial and those single E-4s and below whose BAH (without dependents) was reduced to partial BAH due to temporary assignment away from their PDS during the retroactive period.

Sailors should see a one-time retroactive pay adjustment to either their August or September end-of-month Leave and Earnings Statement.

The interim procedures phase will continue the payment of the appropriate level of BAS and BAH to Sailors temporarily assigned away from their PDS. This phase involves manual calculation for meal collection by local disbursing clerks and will continue until DFAS programmers can make necessary system changes to implement the final phase.

The final phase will involve creation of a new deduction type whenever the member is temporarily assigned away from his or her PDS. Each month, the system will automatically calculate meal collections based on start and stop dates and will send all collections back to the BAS account. The Sailor will then pocket the difference between full BAS and the meal collections.

Recently retired or separated Sailors may be affected by this policy change, as well. Separated members who think they may be affected must submit a claim stating the period of deployment. The claim will be sent to one of two places, based on the status in which the member was discharged. If a Sailor separated in an overpaid status, a claim must be sent to DFAS at:

Denver Center, Code FYDC
6760 E. Irvington Place,
Denver, CO 80279-7500.

If a Sailor separated in an underpaid status, a claim must be submitted to DFAS at:

Cleveland Center, Code FMAR
1240 E. 9th St.
Cleveland, OH 44199

"It is extremely important that we ensure our people receive every benefit to which they are entitled," Chief of Naval Personnel VADM Daniel T. Oliver stated in NAVADMIN 172/98. "This is particularly important with pay and subsistence, two fundamental quality of life issues with all Naval personnel. All of us who are responsible for pay and food service must be very familiar with this policy and apply it in exactly the right way for each case."

Continued on page 28

Continued from page 27

For questions or additional information regarding compensation policy issues, contact LT Todd King, N130C, at comm:

(703) 695-3005/DSN: 225,

e-mail <**p203e@bupers.navy.mil**>.

For questions regarding food-service policy issues, contact Curt Littleton, NAVSUP 511b, at comm:(717) 605-7443/DSN:430,

e-mail **curtis_h_littleton@navsup.navy.mil.**

For questions regarding disbursing implementation, contact the DFAS Cleveland DJMS customer assistance line at comm: (216) 522-6057/DSN: 580. The DFAS BAS point of contact is Elizabeth Dieppa-Wells, DSN: 580-5886, and BAH POC is Dave Mayenschein at DSN: 580-6346. ▲

Annual photo competition begins

ANNAPOLIS, Md. – Image is everything when it comes to the 37th Annual Naval and Maritime Photo Contest, sponsored by the U.S. Naval Institute. The competition is open to amateur and professional photographers who have captured a naval or maritime subject on film.

Entries can be black and white or color prints no smaller than 5x7, or 35mm color transparencies. Entries need not have been taken within the past year and must not have been previously published. A maximum of five entries per person is allowed and photos will not be returned unless accompanied by a self-addressed, stamped envelope.

To be eligible, entries must be postmarked no later than Dec. 31. Cash prizes of $500, $350 and $250 will be awarded to the top three entries, and the winning photos will be published in the April edition of Proceedings magazine. Additionally, 15 Honorable Mention winners will each receive $100. Other photos, not awarded prizes, may be purchased by the Naval Institute for future use in Naval Institute Press books, Proceedings, or Naval History magazine.

Complete rules can be obtained from the Naval Institute's web page at <**www.usni.org**>; by calling the Naval Institute's public relations office at (410)295-1058; or by sending a self-addressed, stamped envelope to:

Photo Contest Coordinator U.S. Naval Institute
118 Maryland Avenue
Annapolis, MD 21401-5035 ▲

Reward raised on chief's missing daughter

MONTEREY, Calif. — The reward has been raised to $100,000 from $35,000 in the case of missing 13-year-old Christina Marie Williams, daughter of AGC Michael Williams.

Authorities believe Christina was abducted from military housing on the Presidio of Monterey Annex in Seaside, Calif., June 12 while walking her dog.

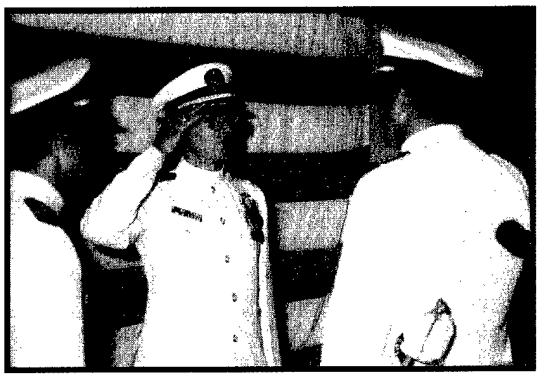
Williams is stationed at Fleet Numerical Meteorology and Oceanography Center, in Monterey. The FBI has taken over jurisdiction in the case, but even with more than 60 full-time agents investigating more than 6,000 leads on the case, Christina is still missing, and the two suspected abductors remain at large.

This case has received national attention with high media interest. The story and the Williams family have been featured on "Larry King Live," on "America's Most Wanted" and on several other national news and information shows. Flyers with pictures of Christina and drawings of the suspected abductors have been distributed nationwide and overseas.

Visit the website at <**www.ChristinaWilliams.com**> or <**www.pollyklaas.org**> for flyers, pictures, information and updates.

To report information concerning Christina or the suspects call the FBI Hotline at 1-800-671-3343. ▲

CDR Renaud assumes command at NAVLANTMETOCFAC Jacksonville

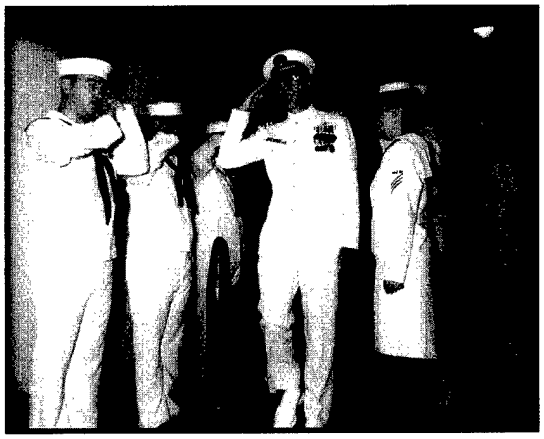


by LT Kris A Caylor

CDR Philip G. Renaud relieved CDR Steven P. Smolinski as Commanding Officer of Naval Atlantic Meteorology and Oceanography Facility in Jacksonville, Fla. on Aug. 6.

Smolinski has been the Commanding Officer of NLMOF Jacksonville since June 1996. During his tenure the Command received the Chief of Naval Operations' Environmental Stewardship Flagship Award for small shore-based commands for its active participation in the JASON project in conjunction with the Eugene Butler Junior High School. He reported to National Imagery and Mapping Agency in Bethesda, Md. where he will be head of Congressional Liaison.

Renaud reported from the Naval War College, where he completed a Master of Arts Degree in National Security and Strategic Studies. ▲



(Top) CDR Philip Renaud assumes command of NLMOF Jacksonville. (Bottom Left) CDR Philip Renaud going through sidebuoys at his change of command ceremony. (Bottom Right) CDR Philip Renaud at his change of command ceremony.

Soper takes command at NTMOF Pensacola

CDR Daniel J. Soper assumed command of Naval Training Meteorology and Oceanography Facility, Pensacola, Fla., on July 17, relieving CDR Mark Diunizio. Diunizio has retired.

Soper reported from Washington, D.C., where he was on the staff of the Oceanographer of the Navy as the Satellite Policy and Programs Officer. ▲

NPMOCW/JTWC has change of command

CDR Debra Ford relieved CAPT Cynthia P. Dillon as Commander, U.S. Naval Pacific Meteorology and Oceanography Center West/ Joint Typhoon Warning Center, Guam (NPMOCW/JTWC) on July 31.

Dillon had served as Commanding Officer, NPMOCW/JTWC since 1996, She moves to METOC Branch Head, Supreme Allied Command in Norfolk, Va.

Ford served previously as Executive Officer of NPMOCW/JTWC.

NPMOCW will be closed this year as part of the BRAC-initiated Pacific realignment Meteorology and Oceanography Command. ▲

NAVPACMETOCFAC Yokosuka holds change of command

by AGCS(AW) Don W. Kim, Command Senior Chief and Public Affairs Officer at Naval Pacific Meteorology and Oceanography Facility, Yokosuka

Commander Eric J. Wright (left), prepares to assume the duties as Commanding Officer of NAVPACMETOCFAC Yokosuka from Commander Charles W. Green (right), as CAPT Tyson Aldinger, CO of NPMOC Pearl Harbor, looks on.

Photo by PH2 Michael Damron

Rear Admiral Kenneth E. Barbor, Commander Naval Meteorology and Oceanography Command, pins the Meritorious Service Medal on Commander Charles W. Green.

Photo by PH2 Michael Damron

CDR Eric J. Wright assumed command of the Naval Pacific Meteorology and Oceanography Facility Yokosuka, Japan from CDR Charles W. Green on July 28. Wright is the facility's 27th Commanding Officer. The facility is scheduled to become a center.

Green was Commanding Officer of the Naval Pacific Meteorology and Oceanography Facility from October 1996 to July 1998.

CDR Green's next duty station will be in Pearl Harbor, Hawaii as Staff Oceanographer at USCINCPAC.

Wright reported from USCINCPAC Pearl Harbor. ▲

CDR Mark Diunizio retires

CDR Mark Diunizio retired from active duty on July 17, during a Change of Command and retirement ceremony at the National Museum of Naval Aviation in Pensacola, Fla. Diunizio has served more than 21 years in the Navy.

Diunizio retired as the second Commanding Officer of Naval Training Meteorology and Oceanography Facility Pensacola. He was awarded the Meritorious Service Medal (gold star in lieu of third award).

Under his leadership, the command transitioned operational meteorological support to web-based technology, continued to lead the way as the Navy's busiest flight weather forecasting center, established and refined the facility's fleet-training mission, and established a component METOC detachment at Stennis Space Center, Miss.

Diunizio also acted as the Navy representative to the University of West Florida in a cooperative marine archeological effort and expanded the availability of operational METOC information to the units of COMDESRON SIX at the Naval Station Pascagoula, Miss.

Diunizio, a native of West Hartford, Conn., is a graduate of the U.S. Naval Academy and the Naval Postgraduate School.

Since his commissioning in 1977 he served in a variety of posts and stations, including the Naval Polar Oceanography Center as Ice Reconnaissance Officer and Operations Officer; Naval Oceanography Command Facility, San Diego as Department Head, Eastern Mobile Environmental Team; Naval Oceanography Command Facility, Bermuda as Commanding Officer; and Naval Atlantic Meteorology and Oceanography Center as Executive Officer.

His awards include the Meritorious Service Medal (three awards), the Navy Commendation Medal (three awards), and the Meritorious Unit Commendation (six awards).

He, his wife Marion, and their three children, Matthew, Laurel and Nicholas, will live in Gulf Breeze, Fla. ▲

NPMOC says farewell to one of its own

by ENS Stephanie C. Belcher, Naval Pacific Meteorology and Oceanography Center Public Affairs Officer

Naval Pacific Meteorology and Oceanography Center said good-bye to AGCS(AW) Brian W. Hill on June 30. In a ceremony at Foster Point on Hickam AFB in Hawaii, Hill retired after 22 years.

Hill joined the Navy in January 1976, as part of the Delayed Entry Program.

During his 22 years, Hill saw a lot of changes – today women are on nearly every Navy platform, technology has brought computers to the forefront of the forecast arena, and the community changed its name from Naval Oceanography and Meteorology in the '70s, to the Naval Oceanography Command in the '80s, to the Naval Meteorology and Oceanography Command in the '90s.

Hill attended the AG "A" and "C-1" schools at Lakehurst, N.J., and attended forecasting school at Chanute AFB, Ill. He served at Naval Weather Service Environmental Detachment, Midway Island; Naval Oceanography Command Facility, Cubi Point, Republic of Philippines; Naval Oceanography Command Center, Guam; Naval Pacific Meteorology Detachment, Long Beach, Calif.; and aboard USS KITTY HAWK (CV-63) and USS ABRAHAM LINCOLN (CVN-72). His final tour of duty was at NPMOC as Operations Leading Chief Petty Officer.

Hill will stay in Hawaii and continue pursuit of his computer science degree at Hawaii Pacific University. ▲

Granen retires

AG1(AW/NAC) Patrick W. Granen closed the book on a 20-year Naval career on July 31 in an emotional retirement ceremony full of Navy tradition at the Naval Oceanographic Office's Matthew Fontaine Maury Library at Stennis Space Center, Miss.

He was awarded a Navy Commendation Medal and his fifth Good Conduct Medal award.

AFCM(AW) Michael Kelsay (USN) (RET), an old friend, was the guest speaker at Granen's ceremony.

Granen's last duty was in the Resources Department with the Naval Meteorology and Oceanography Command at Stennis Space Center.

He plans to stay in the New Orleans area, which is his home, and complete a degree in computer science. ▲

NPMOCW/JTWC XO receives the Captain Joy Bright Hancock Leadership Award

CDR Debra Ford was awarded the 1998 Captain Joy Bright Hancock Leadership Award. She received the award Aug. 7 in Washington, D.C.

The award, given by the Women Officers Professional Association, recognizes inspirational leadership of a Navy or Naval Reserve woman officer or senior enlisted.

Ford was selected from more than 70 nominees for the inspirational leadership she has provided at her command, which is undergoing a big change this year. Under BRAC plans and the Pacific realignment in the METOC community, JTWC will relocate to Pearl Harbor, Hawaii and NPMOCW to Yokosuka, Japan.

Ford served as NPMOCW/JTWC Executive Officer and on July 31 became the center's Commanding Officer. ▲

AG2 Eric Garcia earns master's degree

by AGCS(AW) Nancy L. McHaley

AG2 Eric Garcia enlisted in the Navy in 1991 as an Aviation Structural Mechanic. In July 1995, he successfully cross-rated to Aerographer's Mate, graduated second in his class from AG-A1 school and transferred to the Naval Training Meteorology and Oceanography Detachment, Corpus Christi, Texas.

With only 12 traditional college credit hours and 25 hours credited for Naval experience, he began his pursuit of a college degree in January 1996. He earned his associate's degree in professional aeronautics in August 1996 at Embry-Riddle Aeronautical University on board Naval Airs Station, Corpus Christi. By December 1996, he received his Bachelor of Science degree in professional aeronautics, graduating with honors and a 3.67 grade point average.

Garcia entered the master's program in January 1997, also at Embry-Riddle Aeronautical University. In March 1998, he earned his master's degree in business administration/aviation with a 3.53 grade point average.

During his three-year tour at NAVTRAMETOCDET Corpus Christi, he advanced from AGAN to AG2, maintained a 95 percent surface observation accuracy rate, earned his second Good Conduct Medal, and achieved his 13th consecutive oustanding physical readiness test score.

In addition, he volunteered personal time mentoring Navy Junior Reserve Officer Training Corps (NJROTC) students, assisting with "Weather Badge" training for Boy Scouts, and participating in a Middle School "Shadow" Program.

AG2 Garcia was planning to separate from active duty in June 1998 to seek an airport management position in South Texas. He also plans to apply for the Reserve Officer's Commissioning Program.

He lives in Corpus Christi with his wife, Holly, and son, Eric. ▲

accomplishments

Navy and Marine Corps Commendation Medal

LCDR John Dumas, FNMOC Monterey

LCDR Patrick L. Waring, NEMOD Sigonella

ENS James K. Ingram, NLMOD Key West

AGCS(AW/SW) Edward Puralewski, NLMOC Norfolk

ATC(AW) Lester F. Boerner and AGC(AW) Sandra A. Sprenger, NTTU Keesler

AGC Tony L. Downs, NAVICEN Suitland

AGC(SW) Kurt Elliot and AG1 George Engstler, NLMOD Oceana/Virginia Beach

Navy and Marine Corps Achievement Medal

LT Marc Eckardt, AG2 David Armes, ET2 Peter Benke, SK2 Mario Delacruz(3rd award) and DS2 Todd Neal, FNMOC Monterey

LTJG Renwick M. Mohammed, AG1(AW) William R. Crank and AG2 Christopher L. Martin, NPMOC Pearl River

AGCS(AW/SW) Lawrence G. Torigian, AGC(AW) James P. Richmond and AGC(NAC) Susan O. Womack, NTMOF Pensacola

ET1(SW/AW) Orson B. Boardman(2nd award), PR1(AW) Nancy S. Carpenter(4th award), AG1(AW) William R. Crank(3rd award); AG1(AW) Jill A. Handley(4th award), CTM1 Russell S. Kessler(4th award), ET1(SW) Michael Kerrigan, AG1(AW) Jill A. Handley(4th award), AT1(AW) Jerry W. Perry(3rd award) AG1(AW) Daniel T. Strauss(2nd award), ET2(SW) Robert J. Clemmer(3rd award), and AG3 Anjail F. Weaver, NTTU Keesler

AG1 Rose-Ann M. Gillespie and AG1 Anthony Concalves, NEMOD Sigonella

AG2 Kenneth Fowler, NLMOC Norfolk

AG2 Jessica J. Schilder, NLMOD Patuxent River

ET2 David R. Szlapak, NEMOC Rota

AG3 John A. Griego, NCMOF Bahrain

Good Conduct Medal

AGCS(AW) Don Kim(5th award) and AGC(SW) Lawrence Miller(3rd award), NPMOF Yokosuka

SKC Michael Perez, FNMOC Monterey

PR1(AW) Nancy S. Carpenter, IM1 Jerry B. Dickerson Jr. and AG1(AW) Eileen M. Duncan, NTTU Keesler

AG1 Keith A. Gallagher(4th), AG1 Alfred B. Durham(4th) and AG2 Brian D. Booth(1st), NCMOF Bahrain

AG3 Grace Vanveen, NLMOC Norfolk

Air Force Achievement Medal

AG1(AW) Jill A. Handley and CTM1 Russell S. Kessler, NTTU Keesler

Armed Forces Expeditionary Medal

AG1(SW) Dean N. Kontinos and AG2(SW) Charles G. Sanford, NCMOF Bahrain

NATO Medal

AG2 David Armes and AG2 David Harper, FNMOC Monterey

DS2 David L. Gonzales and AW2(NAC/AW) Shannon L. Riley, NPMOC Pearl Harbor

Overseas Service Ribbon

AGC(SW) Michael D. Willis(2nd), AG1 Alfred B. Durham(5th), AG1 Keith A. Gallagher(13th), AG1 Peggy Parker(2nd) AG2 Brian D. Booth(3rd), AG2 Sarah Carter(1st) and AG3 Christie L. Sorufka(1st), NCMOF Bahrain

Letter of Commendation

LT Gerrard and SK2 Edward Yadao, FNMOC Monterey

DPC Jeffrey Frescino, NLMOC Norfolk

ET1 Frank E. Cherry, AG2 Keith J. Chevalier, AG2 Christopher L. Martin, AG2 Zacharia W. Phillips, AG3 Reese O. Brown and AGAN Sarah L. Moffett, NPMOC Pearl Harbor

AG1 Troy L. Coomes, AG1(AW) Candace A. Vanwhy, ET1(AW) Luther H. Warner and DS2 Felix Y. Hotard, NTMOF Pensacola

AG1 Thomas Cotter, AG1 Debra Leszczynski-Miller and Robin Scooler, NPMOF Yokosuka

AG1 George Engstler, AG1(AW) Thomas Trammell, AG2 Arthur Speck and Mr. Robert Wright, NLMOD Oceana/ Virginia Beach

AG1(SW) Joseph W. Pettway, AG1 Craig S. Ponder, AG1(AW/SW) Richard L. Smalley, AG2 Steven A. Bigley, AG2 Craig M. Carter, AG2 Joel M. Motley, AG2 Roseanne M. Tate, AG3 Kimberlee P. Yearwood, AGAN Tameika N. Campbell and AGAN Chad T. Jones, NEMOD Sigonella

AG2 Darrell Ferguson and AG2 Jeffrey Perry, NPMOF Yokosuka

AG2(SW) Charles G. Sanford, NCMOF Bahrain

AG2 Kelly Lynn Thompson, NEMOC Rota

Letter of Appreciation

LT Douglas Gerrard, LT Michael Martini, LT Trina Vian, AGCS William Worthington, ETC Jackie Langer, QMC John Schultz, STG1 Joseph Charles, DS1 Earl Schultz, AG2 Brenda Behrendt, AG2 Vincent Moore, AG2 Michael Proud, DS2 Richard Washington, AG3 Johnny Boman, CWO3 William Walsh, Mr. William Anderson, Ms. Pimporn Chavasant, Ms. Denise Currie, Mr. Dennis Farber, Mr. Cary McGregor, Mr. Howard Mohler, Ms. Cyndi Robberson, Mr. Carl Thormeyer, Ms. Patricia Webb and Ms. Melissa Yeater, FNMOC Monterey

AGC(AW) Phyllis L. Mellinger, AGC(AW) Rose M. Wibbing, AG1 Anthony Goncalves, AG1(SW) Joseph W. Pettway, AG2 James A. Nicodemus and AG2 Roseanne M. Tate, NEMOD Sigonella

AGC(AW) James P. Richmond, AG1 Paul F. Plunkett, AG1(AW) Leo L. Viechec, AG2 Heather L. Beckstrom, AG2 Sandra L. Brown, AG2(AW) Charles E. Doss, AG2 Scott R. Korschewitz, AG2 Jose A. Morales, JR., AG2 Jonathan R. Pittman, Mr. David Etheridge and Mr. Howard Graham, NTMOF Pensacola

AGC(AW/SW) Jeffrey Stanke, AG1 Michael Kotyk, AG3 Dontri Bulls and AG3 Patrick Cordes, NLMOC Norfolk

AG1(AW) Theodore Dennis, AG1(AW) Eileen M. Duncan, AG1(AW) Jill A. Handley, ET1 Joseph B. Smith, ET1(SW) Jimmie W. Wilson, CTO2 Erik N. Olson, AG2 Jamie N. Pinto and ATAR Sejin Pak, NTTU Keesler

accomplishments

AG1(AW) M.W. Duke, NPMOD Lemoore

AG1 Kimberly Gay and AG2 Fredrick Baker, NLMOD Keflavik

AG1 Dwayne E. Haynes, ET2 Albert Leyendecker, AG2 Ann M. Millison, AW2(NAC/AW) Shannon L. Riley and AG3 Tory J. Adams, NPMOC Pearl Harbor

AG1 Michele Hess, AG3 Mark Dias, AG3 Lee-Anne Kenney and AGAN Katherine Workman, NPMOF Yokosuka

AG2 Nishon N. Barnes, NLMOC Cecil Field

AG2 Darrell Ferguson and AG2 Jeffrey Perry, NPMOF Yokosuka

AG3 Shawn Sanders, NLMOD Oceana/Virginia Beach

AGAN Tennyson B. Sharpe, NLMOD Guantanamo Bay

Certificate of Training

AT1(AW) Ronald L. Frank and AT1(AW) Greg A. Ohliger, NTTU Keesler

Sailor of the Year

AG1 Keith A. Gallagher, NCMOF Bahrain

Sailor of the Quarter

AG1(SG) David Anderson(senior) and AG2 David Perrin (Junior), NLMOC Norfolk

AG1 Thomas Cotter (senior/shore), AG1(SW) Michele Hess (senior/sea), AG3 Shea Erickson (junior/sea) and AG3 Lee-Anne Kenney (junior/shore), NPMOF Yokosuka

AG1(AW) M.W. Duke(senior 2nd Qrtr) and AG2 Jason F. Lamar(senior 1st Qrtr), NPMOD Lemoore

AG1(AW) Christopher T. Olsen (senior) and AG3 Brian J. Capen (junior), NTMOD Whiting Field

AG1 John Reinhardt and AG2 Michael Bovender, NEMOC Rota

AG1(AW) Thomas Trammell (Senior) and AG2 Arthur D. Speck (Junior) NLMOD Oceana

AG1 Brian W. Thomas, NLMOD Patuxent River

AG2 Fredrick Baker and AG3 Shana Paul, NLMOD Keflavik

AG2 Jason A. Green, NPMOD Misawa

AG2 Eugene H. Watson, NCMOF Bahrain

Blue Jacket of the Quarter

AG3 Dean W. Tunberg and AGAN Angela M. Evans, NEMOC Rota

Qualifications/Certifications

Command Duty Officer

LCDR Laura Bramson and AGC(AW/SW) David W. Cuthbert, NEMOC Rota

LT John Whelan and ENS Stephanie Belcher, NPMOC Pearl Harbor

AGC(AW) Matthew Kesselring, NLMOC Norfolk

AGC(NAC) Susan O. Womack, NTMOF Pensacola

AG1(SW) Russell R. Balch and AG1 Jeffery S. Rozlog, NCMOF Bahrain

Communications Technician

AG3 Carlos V. Colon-Valentin

Enlisted Surface Warfare Specialist

AG1(SW/AW) James S. Hibbs and AG2(SW) Henry M. Jeter, NLMOF Jacksonville

Enlisted Aviation Warfare Specialist

AGCS(SW/AW) Joseph J. Deunger, NLMOF Jacksonville

Environmental Technician

AG2 Todd D. Gibson, AG2 Todd A. Ludwig and AGAR Stephen E. White, NCMOF Bahrain

Forecast Duty Officer

LCDR Laura Bramson and LTJG Christina Mock, NEMOC Rota

AG1(SG) David Anderson and AG1(AW) Mark A. Burton Fenters, NLMOC Norfolk

AG1 Trish Bednarczk and AG1(AW) Leo Viechec, NTMOF Pensacola

AG1 Toni Y. Perez and Ms. Peggy Perales, NLMOD Patuxent River

Certification as Forecaster/Forecaster

AGC(AW) Rose M. Wibbing, AG1 Ronald R. Humphrey, AG1(AW) Kenneth C. Perkins, AG1(AW/SW) Richard L. Smalley and AG2 Adolphus B. Clay, NEMOD Sigonella

AG1 William T. Peterson(June), NPMOD Lemoore

AG2(AW/SW) Robert J. Picchi, NPMOC Pearl Harbor

Observer

AG1 Jessica A. Warner, AG2 Paddi J. Jenkins(June) and AG2 Jason E. Lamar(May), NPMOD Lemoore

AG2 Joel M. Motley, NEMOD Sigonella

AG3 Tory J. Adams, NPMOC Pearl Harbor

AG3 Hisham B. Dee, NEMOC Rota

AG3 Shana Paul and AGAN Taylor Hudson, NLMOD Keflavik

AGAR Harvey Nesmith, NLMOC Norfolk

AGAR Bryan C. Walton, NLMOD Guantanamo Bay

AGAR Christie L. Wells, NLMOD Patuxent River

Fleet Forecasting and Routing Technician

AG3 Elgia Johnson and AGAN Curtis Lester, NLMOC Norfolk

MET Certification

LTJG James Gombas, AG2 Scott McPeake and AGAN Jason Strobel, NPMOF Yokosuka

MET Technician

AG3 Hisham B. Dee and AG3 Dean W. Tunberg, NEMOC Rota

MET Forecaster

LT Robyn V. Cadogan, NEMOC Rota

Oceanographic Technician

AG1 Craig S. Ponder, NEMOD Sigonella

AGAA Mike Loporto, NLMOD Keflavik

Virginia Certificate of Meteorologist Journeyman

AG1(AW) Steven Butler, NLMOC Norfolk

Advancements

AG1 Anthony Goncalves, AG2 Joel M. Motley and AG2 Roseanne M. Tate, NEMOD Sigonella

AG1 Dave Halpern, AG2 Mike Vandenberge and AG3 Cheliene Rose, NLMOD Keflavik

AG2 James Bell, III, NPMOF Yokosuka

Aerographer's Mate Class C-1 Course Graduates

AG1 Ananias T. Dauntain(NAMOD Roosevelt Roads), AG2

Kelly S. Collins (NPMOD Diego Garcia) and AG2 Timothy R. Manning(NAMOD Roosevelt Roads), NTTU Keesler

Aviation Flight Forecaster

AG1 Steven D. Pulley, NEMOC Rota

Civilian of the Quarter

Mr. David J. Link, NLMOC Norfolk

Mr. Robert Wright, NLMOD Oceana/Virginia Beach

Civilian Outstanding Performance Award

Mr. Randall Dyer(30 years), NLMOC Norfolk

Distinguished Graduate

Mr. James DaSilva, NLMOC Norfolk

Iron Woman Award

LT Davids, FNMOC Monterey

Iron Man Award

LT Lear, FNMOC Monterey

Length of Service Awards

Mr. Donald Eckard (20 years), NPMOD Lemoore

Ms. Claudia Sweeney (10 years), Ms. Mary Alice Rennick (10 years), Mr. Dave Huff (15 years), Mr. Paul Whitman (15 years), Mr. Frank Carrillo (20 years), Mr. Czec Panek (20 years) and Ms. Pimporn Chavasant (30 years), Mr. Samuel Lloyd (25 years) and Mr. Kazuyoshi Yamaguchi (30 years), FNMOC Monterey

On the Spot Award

Jeffrey Logan, FNMOC Monterey

Navy Apprenticeship Program

AG1(AW) Keith A. Vanwagoner, NLMOD Cecil Field

Professional Growth Award

AG1(AW) Raquel S. Vega, NLMOD Cecil Field

Promotion Certificates

Mr. Guy Mukensnable to GS-13 and Mr. Que H. Nguyen to GS-12, FNMOC Monterey

Retirement

AG1 George Engstler, NLMOD Oceana/Virginia Beach

Sharpshooter

AG1(AW) M.W. Duke, NPMOD Lemoore

Special Act Award

Ms. Mary Bunch and Ms. Sonja Johnson, FNMOC Monterey

Theater/Area Forecaster

LTJG Gregory K. Emery, AG1 William R. Crank, AG1(AW) Gerald L. Smoot, AG2 Heather A. Gordon and AG2 John E. Harder, NPMOC Pearl Harbor

Thirty Year Pin

Shirley A. McCarthy, NPMOC Pearl Harbor

Commander, Naval Meteorology and Oceanography Command
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