

# Chief of Naval Operations Environmental Award Winners Recognized

## Accomplishments Exemplify Navy's Commitment to Environmental Stewardship

**THE NAVY HAS** announced the 29 winners of the fiscal year (FY) 2015 Chief of Naval Operations (CNO) Environmental Awards. The annual awards program recognizes ships, installations, and individuals for their exemplary environmental achievements.

The competition categories for the FY 2015 competition included natural resources management (small installation and individual/team), environmental quality (non-industrial installation and individual/team), sustainability (industrial installation), environmental restoration (installation and individual/team), cultural resources management (large installation), environmental excellence in weapon system acquisition (large program), and afloat (includes five competitive sub-categories).

Subject matter experts from the Navy and other non-governmental organizations judged the individual nominations on accomplishments during the 1 October 2013 through 30 September 2015 eligibility period. Chief of Naval Operations Admiral John Richardson recognized the 29 award winners during a video teleconference ceremony held 30 June 2016 at the Pentagon in Washington, D.C.

Accomplishments of the winners are highlighted below.

### Natural Resources

This award recognizes efforts to promote the conservation of natural resources, including the identification, protection, and restoration of biological resources and habitats; the sound long-term management and use of the land and its resources; and the promotion of a conservation ethic.

### *Small Installation*

#### *Commander Fleet Activities, Yokosuka, Japan*

Commander Fleet Activities (COMFLEACT), Yokosuka is working to preserve natural resources found on the installation through environmental stewardship and community outreach. To optimize their effectiveness, COMFLEACT Yokosuka has cultivated partnerships with technical experts specializing in Japanese environmental requirements and local governments, including the cities of Yokosuka, Zushi, and Yokohama.

The firefly is both a living cultural Japanese icon and ecologically significant. The Natural Resources Program (NRP) at Yokosuka focused tremendous efforts to protect the firefly habitat. Staff reduced artificial lighting, created vegetation buffer zones, modified grass cutting areas, and limited the use of harmful soap and detergents within the firefly's habitat. Additionally, NRP's management successfully bred over 800 fireflies in 2015.



SEABEES construct educational signage at Ikego Camp Grounds as part of efforts to protect the area's natural features. The pond in background is prime firefly habitat and foraging area for migratory birds.

*Ryoko Arak*



Survey and trapping of aquatic wildlife at Ikego ponds. Surveys of wildlife both native and non-native are being conducted along with the elimination of exotic species.

*Hisako Mawatari*

Yokosuka allocated funding to conduct studies to determine current land and marine natural resource levels, including bird populations. These projects are the first of their kind and will assist developers and builders in avoiding development in areas deemed essential habitats for threatened species.

*Naval Air Facility, Atsugi, Japan*

The environmental team at Naval Air Facility (NAF) Atsugi has implemented innovative methods to preserve natural resources, working alongside local farmers and government officials. One example of this work is the relocation of hundreds of honey bees by NAF Atsugi staff and local beekeepers. Bees are a dwindling species in the local agricultural areas where Atsugi is located. Relocating the bees provided a great opportunity for those working at NAF Atsugi to strengthen their relationship with both the surrounding community and the environment.

The NAF Atsugi Environmental Division is using tracking tools and technology to ensure that natural resources are protected during the lifecycle of a project, which encompasses construction, repair and maintenance work. These efforts ensure that natural resources are available for all to enjoy for generations.

*Pacific Missile Range Facility  
Barking Sands, Hawaii*

Pacific Missile Range Facility (PMRF) Barking Sands is the world's leading multi-dimensional integrated test and training range. Bordered by the Pacific Ocean, the facility is home to an abundance of natural and native resources including protected species. PMRF has made the protection of native wildlife a priority. The base provides patrolled beachfront to safeguard and monitor green turtles, a threatened species in Hawaii, so that the turtles can successfully nest. In 2015, a documented 499 eggs were laid with 468 successfully hatching. PMRF is also home to endangered Hawaiian monk seals. At the base the seals are provided with a safe habitat and available for academic research.

Staff implemented a base-wide Dark Sky Initiative at PMRF to protect endangered avian species such as the Newell's Shearwater, the Hawaiian Petrel, and the Band-rumped Storm-Petrel. They are most vulnerable during the fall season which is a critical developmental stage when first learning to fly. Light pollution has been known to adversely affect the birds during this important period of their lifecycle. The Dark Sky Initiative helps to minimize the "fallout" of artificial evening light.



NAF Atsugi promotes environmental stewardship across the base.

## Individual or Team

### *Ian Trefry of Portsmouth Naval Shipyard, Maine*

Mr. Ian Trefry works at Portsmouth Naval Shipyard, in Kittery, Maine as the Natural Resources Manager for Naval Facilities Engineering Command Mid-Atlantic (NAVFAC MIDLANT) Public Works Department- Maine Environmental Division. His work has tremendously impacted environmental sustainability, as his area of responsibility includes 19 Navy installations and reserve centers, a staff of over 7,000, and over 16,000 acres of land spanning six states throughout the Northeast. The land he has sought to preserve supports over 100 species that are vulnerable to extinction and more than 5,000 acres of wetlands.

Over his years of service Mr. Trefry has created partnerships with other



Ian Trefry and NAVFAC MIDLANT biologist Chris Petersen document vernal pool habitats at the Great Pond Outdoor Adventure Center. The results of this survey facilitated updates to the installation Integrated Natural Resources Management Plan, assisted with facility planning, and aided in community outreach activities.

*Ian Trefry*

Dr. Eric VanderWerf and Robby Kohley hand feed a Laysan albatross chick recently transferred to its protected outdoor enclosure.

*John Nelson*





An installation conservation law enforcement officer gets assistance from NASO utilities crew and equipment to rescue a juvenile osprey from a nest located on a utility pole at NASO Dam Neck Annex that caught fire earlier in the day after a storm event.

governmental agencies and non-governmental agencies to support environmental research that is estimated to have saved the Navy tens of thousands of dollars. Mr. Trefry was also a key player in the Readiness and Environmental Protection Integration Program that provided conservation easements for approximately 10,000 acres of land bordering the Survival, Evasion, Resistance, and Escape School East Training Facility (SERE EAST). This protected land not only preserves New England's wilderness but it also provides realistic training for SERE EAST and buffers the installation from encroachments.

*Naval Air Station Oceana and Naval Support Activity Hampton Roads Northwest Annex Natural Resources Support Team, Virginia*

A dedicated group of individuals are assigned to provide environmental services at Naval Air Station Oceana (NASO) and have assignments at Naval Support Activity Hampton Roads Northwest Annex (NSAHR NWA). Their work covers over 15,000 acres of land that the Navy owns or leases, plus an additional 140,500 acres of easements and nearshore environment. The group is supported by a vast network of individuals, including 19 members of the natural resources team from NASO and NSAHR NWA.

The team works collaboratively with in-house support, contractors, co-operators, regulatory agencies, lessees, and volunteers. The projects that have been executed by the team have provided information on land management, vegetation, and wildlife habitat, so that educated decisions can be made to both accomplish the military

mission requirements and maintain natural resource compliance. This collaborative approach has saved the Navy hundreds of thousands of dollars, as well as many natural resources.

*Southwest Marine Biology Team of Navy Region Southwest and NAVFAC Southwest, California*

On 8 December 2014, a carcass of a 2,000-pound whale was discovered in San Diego Bay near Naval Air Station North Island. The specimen was originally thought to be a minke whale, one of the most plentiful whale species in the world, but upon further inspection it was determined to be a juvenile Bryde's whale. Bryde's whales are common in tropical waters, but sightings are uncommon in California. Scientific studies indicate that Bryde's whales are becoming more common in the waters off Southern California. This stranding could be indicative of the population's growth.

Two days after the discovery of the whale carcass, a group of scientists from the Navy's Southwest Marine Resource Management Team, the National Marine Fisheries Service (NMFS), the Southwest Fisheries Science Centers, and the San Diego Museum of Natural History worked to preserve the whale for the museum's collection and to investigate the creature's cause of death. The whale will be available for the public to view and for academics to study, as the only complete specimen of a Bryde's whale in a museum on the west coast.



The baleen array pulled from the carcass. Recovery of this specimen with a fully intact baleen array was one of the highlights of preserving this specimen of Bryde's whale. It is now the only complete skeleton of Bryde's whale with a full baleen array in a research collection in the U.S.  
*Walt Wilson*

## Environmental Quality

These awards recognize efforts to ensure mission accomplishment and protection of human health in the areas of environmental planning, waste management, and environmental law and regulation compliance. Meeting or exceeding all environmental requirements not only enhances the protection of our environmental assets, but also sustains the Department of Defense's (DoD) ability to effectively train and maintain readiness.

### *Non-industrial Installation*

#### *Naval Medical Center Portsmouth, Virginia*

Naval Medical Center Portsmouth and its outlying clinics provide quality patient-centered healthcare to over 420,000 active-duty and retired service members and their families. As the Navy's oldest continuously operating hospital, it maintains its "First and Finest" tradition by successfully integrating its environmental management system program into all aspects of healthcare delivery. Through environmental stewardship over 600,000 pounds of plastics, cardboard, and privacy curtains were diverted from entering landfills in FY15. Additionally, an aerobic digester enabled the diversion of over 200,000 pounds of food waste. The center was able to reduce medical waste in FY15 by 36 percent when compared to FY14 levels.

The center also purchased and installed waterless mops for housekeeping to use throughout the clinics in March of 2015. These mops have zero discharge to the sanitary sewer and help to eliminate cross contamination.



Hospital Corpsman providing vaccine to patient.



The excavation and bottom drain for a 600 by 200 foot bioretention area for reducing pollution in stormwater runoff. Best management practices implemented during the award period such as this one will reduce stormwater runoff of nitrogen, phosphorus, and suspended solids by over 11 tons per year.

#### *Naval Support Activity Mechanicsburg, Pennsylvania*

Naval Support Activity Mechanicsburg (NSA-M), which includes its namesake, Naval Support Activity Philadelphia and the Philadelphia Naval Yard Annex, collectively employs approximately 12,000 people. NSA-M achieved many major environmental accomplishments in FY15. NSA-M reduced their energy consumption by 9.5 percent compared to the previous fiscal year; this resulted in over \$4 million in savings. The key to meeting these energy reductions has been the establishment of a building monitoring and energy audit program.

Looking ahead, NSA-M has been awarded \$3.1 million to fund projects that will reduce stormwater pollution runoff of nitrogen, phosphorus, and suspended solids by over 11 tons. The projects will allow NSA-M to meet Chesapeake Bay pollutant reduction permit requirements with the use of roof-disconnect planter boxes, dry and vegetated swales, rain gardens and bioretention facilities.

#### *Navy Region Center, Singapore*

Navy Region Center Singapore's (NRCS) environmental team plays an important role in maintaining compliance with U.S. environmental guidance and applicable local laws and regulations, and the facility's quality of life. Staff reduced solid waste disposal by 44 percent despite a 22 percent increase in population from FY13. A major factor that contributed to this reduction was a 128 percent increase in recycled waste from FY13 to FY15. The installation also trimmed energy consumption by 36 percent when compared to the 2003 baseline number; this equals a savings of \$70,000 a year, despite the significant population growth.



Representatives from United Kingdom Defense Fuels Group Singapore, PSA Corporation, Singapore Civil Defense, Interagency Auxiliary Police Force, and NRCS participate in the joint spill response exercise conducted in FY15. The exercise provided heightened awareness and significantly increased the spill response capability of all parties.

*Teo Kok Sing*

Through the excellent environmental quality program, managed by the environmental team, the command has prospered in cost savings and improved readiness. A key facet of NRCS's environmental success is providing a sense of personal contribution, ensuring that programs will be maintained and successfully transitioned through changes of command and personnel.

### *Individual or Team*

*Commander Fleet Activities Yokosuka Public Works Department Environmental Management Division Team, Japan*

A staff of over 30 engineers, environmental specialists, program managers, program analysts, and technicians make up Commander Fleet Activities (FLEACT) Yokosuka's Environmental Division. The team works vigorously to implement environmentally sound measures in accordance with Japan Environmental Governing Standards and applicable Japanese and U.S. regulations, laws, policies, and requirements.

At Yokosuka waste diversion continues to be a staple ingredient in its environmental success through an ever-evolving recycling program. By revamping and simplifying awareness

training, participation in the environmental management program has improved, despite the installation's typically high personnel turnover.

The diversion rate for construction and demolition debris at Yokosuka is an impressive 66 percent, due in large part to improvements to an environmental Statement of Work template that is used for all new contracts, which now requires participation in the recycling program and a better accounting of recyclable materials.

Yokosuka's Qualified Recycling program has generated approximately \$1.7 million in income. These funds have been reinvested into safety programs, pollution prevention initiatives and Morale, Welfare and Recreation support.

*Naval Station Norfolk Environmental Compliance Team, Virginia*

The Naval Station Norfolk environmental compliance team provides technical, permit management, and spill management support to Naval Station Norfolk. The efforts of the team contributed to improvements to the installation's stormwater system. These modifications allowed the installation to surpass



A member of the environmental team collects a drinking water sample from a water faucet. This activity is one of many sampling events the Environmental Division conducted between FY14 and FY15.

*Yoshiaki Kanazawa*

2018 pollutant reduction goals for the Chesapeake Bay region, three years earlier than required. The development of construction site inspections, which ensure that sediment is not discharged to storm drains and subsequent waterways, and incorporation of best management practices to filter out pollutants contributed to this achievement.



Environmental services personnel clean up a spill pierside. Through periodic shipboard spill training, working with Type Commands to evaluate root cause, and other outreach, Naval Station Norfolk has exceeded its EMS targets in spill reduction.  
*Ricky Cambridge*

The team has also created a partnership with the Virginia Industries for the Blind to form a free fire extinguisher recycling initiative. Naval Station Norfolk currently has over 2,000 extinguishers stockpiled. By recycling the fire extinguishers, 500 man hours and \$80,000 will be saved.

*NAVFAC Northwest Environmental Management System Team, Washington*

The NAVFAC Northwest Environmental Management System (EMS) team works to provide environmental support to several installations that cover over 91,000 acres of land in 11 states.

At Naval Magazine Indian Island, the team exceeded its goal of reducing energy consumption by 30 percent in FY15 by achieving a 60 percent reduction in energy intensity compared to the established 2003 baseline. Two major projects were completed in FY14 and FY15 that

led to the significant reduction in energy consumption: the installation of modern Industrial Control Systems that created an annual energy savings of 1,846 million British Thermal Units (BTU) per hour and the replacement of street and exterior building lighting that saves 1,334 million BTUs annually.

The stormwater at Naval Base Kitsap (NBK) discharges into the Puget Sound, a protected body of water that requires special attention. In order to prevent copper and zinc contained in dust

kicked up by trucks from entering into Puget Sound, staffers installed a stormwater rain garden, with support from the EMS team, to filter out contaminants.

**Sustainability**

These awards recognize efforts to prevent or eliminate pollution at the source, including practices that increase efficiency and sustainability in the use of raw materials, energy, water, or other resources. Sustainable practices ensure that DoD protects valuable resources that are critical to mission success.

*Industrial Installation*

*Fleet Readiness Center Southeast, Florida*

Fleet Readiness Center Southeast (FRCSE) provides maintenance and repair services including in-depth modifications and overhauls of naval aircraft, engines, weapons systems and components. The command is dedicated to meeting environmental, energy, and economic performance goals.

FRCSE recycled 160 tons of used oil and reclaimed eight tons of turbine blades for rhenium extraction in FY14 and FY15. The command also expanded its metals reclamation program to include 49 tons of F404, F414, and TF34 engine components. Two AE-6B Prowler aircrafts were reclaimed at the command in FY15, recycling 19 tons of aircraft material and recovering aircraft parts for a cost avoidance of \$14.5 million.

The FRCSE environmental office established goals to develop environmental knowledge down to the individual shop level. These efforts involved training each artisan, coaching the shops, scoring performance, and reviewing and correcting



Navy Region Northwest biologists conduct sampling of shellfish species within the intertidal zones at NBK Bremerton. The study was conducted to determine the appropriate biologically active zone for shellfish within the intertidal portion of the remedial action area.



Charles Miller, an FRCSE material identifier, washes a bin of aluminum scraps collected through the manufacturing process. Washing the scraps removes oil residue and dust so the metal can be taken to Defense Logistics Agency Disposition Services for resale.

*Clifford Davis*

procedures. These efforts increased shop awareness and adherence to environmental compliance requirements and resulted in an 80 percent reduction in the number of non-conformities found during reviews.

#### *Fleet Readiness Center Southwest, California*

Fleet Readiness Center Southwest delivers responsive maintenance, repair, and overhaul products and services in support of naval aviation and national defense objectives. In FY15 the facility delivered 164 aircraft, 38,500 aviation components, 99 aircraft engines and 22 marine gas engines to the Fleet.



The F/A-18 assembly/disassembly hangar was repainted with non-toxic paint to sustain health and safety compliance. The newly painted facility also improves natural lighting, reducing electricity consumption.

Waste prevention is practiced at the facility by recycling all feasible waste streams. The recycling program recycled 75 percent of all non-hazardous solid waste and 100 percent of all surplus electronics in FY15. Examples of hazardous waste recycling include 109,000 pounds of spent oil and petroleum products and 18,000 pounds of machine coolant.

Projects to reduce energy consumption included nighttime setbacks for foundries, removal of a data center, and sequencing air handlers with nighttime and weekend setbacks to more efficiently regulate temperatures. Results showed an electricity savings of 824 megawatt hours, a natural gas savings of 1,605 million BTUs, and a greenhouse gas reduction of 885,111 pounds, for a cost savings of nearly \$1 million.

#### *NAVSUP Fleet Logistics Center San Diego, California*

The Naval Supply Systems Command (NAVSUP) Fleet Logistics Center (FLC) San Diego provides combat capability through logistics support to 86 home-ported ships, submarines, transient vessels, and 11 over-the-horizon regional naval bases and air stations in California and Nevada.

Through significant research, the team at FLC developed an effective solution for chemical pretreating and processing 750,000 gallons of water contaminated with hydrogen sulfide at its fuel oil reclamation plant.

The fuel oil recovery system at FLC San Diego is a critical cost savings resource for the Navy. Approximately 1.5

million gallons of fuel are reclaimed by the system annually, generating over \$1 million in revenue. The recovered oil primarily comes from Navy vessels entering shipyards for maintenance.

Without the fuel oil recovery system, oily water from the vessels would be treated as a costly hazardous waste, since the closest disposal facility is located in the Los Angeles Basin. The Navy achieves over \$14 million annually in cost avoidance through this successful program.

#### **Environmental Restoration**

This award recognizes efforts to protect human health and the environment by cleaning up identified sites in a timely, cost-efficient, and responsive manner. Restoring these sites impacted by





NAVSUP Fleet Logistics Center San Diego's Defense Fuel Support Point facility located on Naval Base Point Loma.

historic defense practices protects military personnel and the public from potential environmental health and safety hazards.

### Installation

#### *Joint Expeditionary Base Little Creek-Fort Story, Virginia*

The environmental program at Joint Expeditionary Base Little Creek-Fort Story (JEBLCFS) has collaborated with various governmental agencies to balance the challenges of restoring environmental sites and protecting human health and the



Divers were used at JEBLCFS 's Solid Waste Management Unit 3 site to distribute powdered activated carbon across the sediment surface to reduce the bioavailability of contaminants in the upper biologically active zone. The use of amendments to actively sequester contaminants in sediment was less energy-intensive, less expensive, and less disruptive than conventional remediation technologies.

*Louie McTall*

environment with the facility's limited space, continued growth and mission need for usable land. The efforts at JEBLCFS have resulted in significant cost savings and made approximately 31 acres available for reuse.

Staff actively treated sites on the base via enhanced reduction dechlorination, with the use of "green" remedial technologies. This was achieved by injecting emulsified vegetable oil into the groundwater to promote the degradation of contaminants, from historical waste management practices.

Another environmental innovation at JEBLCFS was designating a portion of a landfill for beneficial reuse. The land was converted into an equipment storage area while maintaining the integrity of the existing soil cover, freeing up land for other constructive uses or conservation.

#### *Portsmouth Naval Shipyard, Maine*

Portsmouth Naval Shipyard (PNSY) is a 216-year-old facility with a long naval history, situated at the mouth of the Piscataqua River. Today, it serves as a nuclear-powered submarine maintenance facility. Throughout its history, many of the hazardous materials at the facility had been managed in accordance with outdated procedures which resulted in contamination at the shipyard.

The environmental program at PNSY is pursuing an aggressive schedule for cleanup. Notably successful remedial actions were executed at three separate sites, resulting in the excavation and proper disposal of over 24,300 tons of contaminated soils and sediments in FY14 and FY15.

The environmental team at PNSY is continually considering smarter, greener ways of conducting environmental remediation. For example, the



Upon completion of the FY14-15 dredging activities, a bathymetric survey confirmed appropriate removal of contaminated sediments that posed unacceptable risk to ecological benthic receptors. The remedial action considered the protection of the eelgrass bed located at one of the dredging locations and was completed within the federally and state approved in-water work window intended to protect the threatened and endangered species, Atlantic and shortnose sturgeon.

*Frederick Matthew Thyng*

team collaborated with the U.S. Environmental Protection Agency (EPA) and the Maine Department of Environmental Protection to design and implement an innovative method of using Portland cement to stabilize almost 9,000 tons of lead-contaminated soil to render it non-hazardous for handle and disposal. PNSY utilized this technique a few months later to address 107 tons of lead-contaminated soil that required treatment after dredging. This process saved over \$3 million in hazardous waste transport and disposal costs.



### *Individual or Team*

#### *Naval Base Ventura County Environmental Restoration Team, California*

Naval Base Ventura County (NBVC), which is made up of multiple facilities in Southern California, provides airfield, seaport, and base support services to fleet operating forces and shore activities. The Environmental Restoration Team (ERT) at NBVC provides all aspects of Installation Restoration and Munitions Response Program oversight at NBVC. To date, a total of 72 of the 135 sites where restoration activities have been performed at NBVC are considered to be response complete. Thirteen of those sites achieved a response complete status during FY14 and FY15.

Through innovative partnerships and techniques, the team is not only able to achieve response complete status, but they are also able to find cost-effective solutions and reclaim land. By partnering with the Calleguas Creek Watershed Committee, the NBVC ERT was able to save \$10.2 million on the remediation of the Mugu Lagoon. At the Fort Hunter Leggett facility, an expeditious removal of munitions and explosives of concern was performed, which resulted in the reopening of seven acres of facilities critical for Navy mission use. Using a one-of-a-kind system, originally designed to separate pistachio shells from pistachio nuts, 25,000 pounds of lead shot and 918 tons of target debris were separated from sand at the Point Mugu Trap & Skeet Range Site. This innovative process led to a cost savings of \$500,000.

*St. Juliens Creek Annex Environmental Restoration Program Partnering Team, Virginia*

The primary mission of St. Juliens Creek Annex (SJCA) is to provide a radar-testing range, as well as administrative and warehousing facilities for nearby Norfolk Naval Shipyard and other local naval activities. In July of 2000, SJCA was added to the National Priorities List as a result of former operations conducted at the facility that resulted in environmental impacts. The SJCA Environmental Restoration Program Partnering Team was created to streamline the closure of the Environmental Restoration Program sites by using consensus-based site management strategies following the Comprehensive Environmental Response, Compensation, and Liability Act process. This team is a partnership between NAVFAC, the EPA, and the Virginia Department of Environmental Quality.

The team reduced the environmental impact of the remediation actions at two sites at SJCA through the utiliza-



Dense non-aqueous phase liquid (DNAPL) was discovered as wells were being installed for substrate injection to address contamination in the shallow aquifer groundwater. The team developed an approach to remove the DNAPL, resulting in immediate contaminant mass reduction.

Bonnie Roberts



Munitions response divers search the ocean floor for munitions to accelerate opening a planned public recreational area at the adjacent former Vieques open burn/open detonation site at the request of USFWS.

tion of several green and sustainable remediation techniques. Permanent injection wells were installed, which greatly reduced the amount of waste generated when compared to using temporary injection points. Emulsified vegetable oil, an innocuous substance, was also used to remediate the sites, reducing the risk of cross-contamination.

*Vieques Environmental Restoration Program Team, Puerto Rico*

Between the mid-1940s until 2003, more than 300,000 munition items were fired at the former Vieques naval installation during military training. A large portion of Vieques and the surrounding waters were placed on the National Priorities List in 2005.

The remediation project faces unique challenges, such as unexploded ordnances and their associated contaminants, across thousands of acres of land and sea floor. To meet these challenges and successfully implement environmental restoration, representatives from NAVFAC Atlantic, the EPA, the Commonwealth of Puerto Rico Environmental

Quality Board and Department of Natural and Environmental Resources, the NMFS, the National Oceanic and Atmospheric Administration, the Department of Interior, and the U.S. Fish and Wildlife Service (USFWS) work collaboratively as the Vieques Environmental Restoration Program Team.

In FY14 and FY15 over 560 acres were cleared of munitions at Vieques, resulting in the removal of over 7,000 munitions and over one million pounds of scrap metal being sent to a recycling facility. During the cleanup, divers recovered munitions across 200 acres of seafloor adjacent to the site, while ensuring threatened and endangered corals and other sensitive species/habitats were protected.

Cleanup has been accelerated using innovative strategies and groundbreaking technologies, such as a remotely operated long-reach excavator, used to remove highly dangerous munitions within heavily vegetated areas on roads and beaches. This technology is estimated to save the project over \$11 million.

## Cultural Resources Management

These awards recognize efforts to promote cultural resources stewardship by highlighting outstanding examples of Cultural Resources Management (CRM). Awards are designed to showcase extensive cultural resources including archaeological sites, the historic built environment, and cultural landscapes. Desired initiatives include partnering with external stakeholders such as Native Americans, state historic preservation officers, and local communities, and those working with internal stakeholders, such as master planning, public works, and range management. Through cultural resources management programs, Navy and DoD identify areas likely to contain historical assets and work to protect these resources for future generations in partnership with Native American tribes and historic preservation authorities.

### Large Installation

#### *Naval Air Station Fallon, Nevada*

Naval Air Station (NAS) Fallon is a 241,000-acre station whose primary mission is to provide integrated air training events in support of carrier air wings, marine air groups, and joint and multinational exercises. Located in the heart of ancient Lake Lahonton, the Fallon area includes archaeological sites that date back more than 10,000 years. Prehistoric burials have been found in cave and dune sites throughout the Lahontan Valley, including on NAS Fallon.

During FY14 and FY15, an archeological inventory was taken of over 14,000 acres, resulting in the discovery of nearly 500 archaeological sites. Other achievements included performing National Register of Historic Places evaluations for 66 archeological sites, and completing a maintenance plan for NAS Fallon's last remaining World War II-era hangar.

Volunteers from the University of Nevada, Reno and local archaeological community donated over 300 hours of services to the natural resources management program, illustrating the collaborative nature of NAS Fallon and the local community.



An archaeologist excavates a prehistoric cooking hearth on NAS Fallon bombing range B-16. During FY14 and FY15, 66 archaeological sites on NAS Fallon bombing ranges were evaluated for their National Register of Historic Places eligibility.

#### *Naval Support Activity Crane, Indiana*

Occupying 62,000 acres, Naval Support Activity (NSA) Crane's mission is to enable and sustain fleet, fighter and family readiness through consistent, standardized, and reliable shore support to tenant commands. The cultural resources program at NSA Crane encourages all of the NSA Crane family to become intimately connected to the history of southern Indiana and the Navy's installation to encourage the community's responsive behavior and stewardship for its resources.



Holt Rock Shelter is one of 78 known archaeological sites on NSA Crane.

NSA Crane surveyed over 230 acres for archaeological resources. Efforts on 112 of those acres were proactive, thereby clearing an entire area for future development without the cost or delay of just-in-time survey work. Additionally, various cemetery ground-penetrating radar surveys were conducted to define and map the boundaries of 28 pioneer era cemeteries, thereby protecting them against future development.

#### *Naval Weapons Station Yorktown, Virginia*

Naval Weapons Station (WPNSTA) Yorktown and its areas of responsibility contain 426 identified archaeological sites. The sites provide a unique look into the past, allowing a glimpse into the lives of American Indians and early Colonial settlers during the Revolutionary and Civil War eras, and onwards through the 18th, 19th and 20th centuries.

Over the past two years, WPNSTA Yorktown enhanced its commitment to cultural resources management through the implementation of its Integrated Cultural Resources Manage-

ment Plan to foster a balance between resource protection and operational requirements. Currently, the station is conducting investigations on four prehistoric sites. Through a cooperative agreement, the College of William & Mary has been evaluating archaeological deposits at Yorktown since 2011, which depicts an American Indian village dating to the period between AD 900 and 1623. This investigation has led to a large recovery of artifacts enhancing understanding of the historic village.

#### **Environmental Excellence in Weapon System Acquisition**

This award recognizes efforts to incorporate environmental, safety, and occupational health requirements into the system engineering, contracting, and decision-making processes of a large (Acquisition Category I) weapon system acquisition program. Adhering to these principles enhances DoD's acquisition process by ensuring that weapon system programs keep the safety of personnel and protection of the environment as a priority.

#### *Large Program*

##### *P-8A Environmental, Safety, and Occupational Health (ESOH) Team, Patuxent River, Maryland*

The P-8A acquisition program is committed to integrating environmental practices into the lifecycle management of its aircraft systems; this includes addressing issues such as engine air emissions, community noise, and hazardous materials use. The team working on the program is dedicated to ensuring timely deployments of P-8A aircraft that are compliant with federal, state, and local environmental laws and regulations. Strategic planning and execution by the team ensures that system-related environmental hazards are identified early in the lifecycle of the program and that best management practices are established and implemented throughout the lifecycle of the weapon system. By collaborating with Jacksonville Fleet Support Team, Naval Air Systems Command logistics personnel, and the manufacturer to optimize the P-8A Hazardous Material Authorized Use List (HMAUL), they reduced total HMAUL line items by 35 percent and decreased total items by 67 percent.

#### **Afloat**

The Afloat awards recognize outstanding contributions to fleet readiness, increased morale, and efficient, economical use of resources to promote environmental protection at sea.

##### *Large Deck Combatant Category*

##### *USS Carl Vinson (CVN 70)*

USS Carl Vinson and her crew of 3,100 Sailors operate in times of war as the cornerstone of joint/allied maritime expeditionary forces, supporting aircraft attacks on



Excavation of a ditch, fence, and hearth feature at the Kiskiak American Indian site on WPNSTA Yorktown, identified by the College of William & Mary Archaeological Field School.



Aviation Ordnancemen assigned to Patrol Squadron (VP) 16, prepare to load a MK-54 torpedo onto a P-8A Poseidon aircraft in Jacksonville, Florida. PMA-290 testing activities involve the use of underwater sound/explosives in the marine environment, including systems under development.  
*Eric A. Pastor*

enemies, protecting friendly forces, and engaging in sustained independent operations.

USS Carl Vinson has a reputation for being the “greenest carrier in the Navy.” To prevent any inadvertent discharges of untreated sewage during transfer off the ship, the repair division completed 632 preventative and 54 corrective maintenance checks in FY15. When moored, discharge hoses to the pier were monitored hourly during shore transfers to enable duty personnel to secure pumping at a moment’s notice. This allowed for the transfer of 4.5 million gallons of sewage without any spills.

After returning from a ten month deployment in 2015, the vessel completed a tremendous amount of rehabilitation and maintenance work without any reportable environmental incidents. Daily inspections were conducted on equipment, and local experts were engaged to ensure

air pollution was minimized during work. One of the green improvements made was replacing 22 valves of the air conditioning and refrigeration center on refrigeration systems,

resulting in a 17 percent reduction in refrigerant releases to the atmosphere.

### *Littoral or Amphibious Warfare Category*

#### *USS Sentry (MCM 3)*

USS Sentry is a mine countermeasures ship with approximately 80 crewmembers, forward deployed in Manama, Bahrain. In FY15, Sentry supported Operation Decisive Storm on only 72 hours’ notice. During the 60-day task, Sentry had many challenges surrounding the disposal of refuse. MCM class ships, unlike larger combatants, are not equipped with waste processing systems such as metal and glass shredders or plastic waste processing units. The Sentry’s culinary specialist devised methods to sort trash and garbage that allowed the crew to more easily dispose of biodegradable items, while holding plastics and paper waste until they could be properly disposed of during port visits.



Aircraft carrier USS Carl Vinson (CVN 70) transits the Pacific Ocean.  
*MCS3 Eric Coffey*

The mine countermeasures ship USS Sentry (MCM 3) gets underway in Bahrain.

*Martin L. Carey*



During FY15, Sentry operated with the minimum number of engines necessary to support the ship's mission in order to minimize pollution and fuel consumption.

### *Military Sealift Command Category*

#### *USS Emory S. Land (AS 39)*

USS Emory S. Land is a forward-deployed submarine tender whose primary mission is to provide intermediate maintenance repair to submarines and ships. Emory S. Land is manned by a crew of approximately 250 Sailors and 150 civilian mariners. The vessel is homeported at Diego Garcia, located in the British Indian Ocean Territory. In FY15, the submarine was underway for 64 days, and conducted six port calls.



The submarine tender USS Emory S. Land (AS 39) shortly after arrival to Fleet Activities Sasebo, Japan.

*Michael Doan*

Simply based on her assigned mission, Emory S. Land has a larger associated hazardous waste stream than most equivalently sized ships. The ship off-loaded as much as 40,000 pounds of hazardous material without any spills during port visits. The supply department took an aggressive approach by removing roughly 40,000 pounds of hazardous material to minimize its

use. Additionally, Freon was substituted with a more environmentally friendly refrigerant in compressors and air conditioning units.

The vessel's chaplain and 48 Sailors went the extra mile in FY15 by volunteering over 200 hours at several environmental community service events in Guam, the Philippines, and Oregon.

### *Surface Combatant*

#### *USS Chafee (DDG 90)*

USS Chafee is homeported in Pearl Harbor, Hawaii, and houses 317 crew members and 30 Sailors. Chafee's policy is to always use the most fuel-efficient plant configuration to achieve operational requirements. The vessel made effective use of "drift ops" in order to reduce engine hours, fuel consumption and air pollution.

## **The Awards Process**

THE ANNUAL CNO Environmental Awards program recognizes the environmental stewardship of installations, individuals, teams, and Navy ships. The CNO competition is the first level and all winners advance to the second Secretary of the Navy (SECNAV) level of competition along with U.S. Marine Corps submissions. Eligible SECNAV winners are selected to compete in the final Secretary of Defense level of competition among all the branches, with the exception of the afloat categories which are unique to the Navy levels of competition.



The Arleigh Burke-class guided-missile destroyer USS Chafee (DDG 90) transits the Philippine Sea.  
Ricardo R. Guzman

During a 7-month deployment and multiple pre-deployment underway days, the crew found ways to secure main engines for 48 hours, saving over 100,000 gallons of fuel and reducing air pollution. Through judicious use of “drift ops” Chafee has limited her air emissions as much as possible, taking into account

operational commitments and safety of navigation.

### *Submarine Category*

#### *USS Tennessee (SSBN 734)*

USS Tennessee, a ballistic missile submarine, is homeported in Kings Bay, Georgia, with a crew of 246 personnel. Tennessee leads the way

in environmental stewardship with an intense environmental training program. The crew completed over 1,500 man-hours of environmental awareness training in FY14 and FY15. Over the same time period, Tennessee ran 21 oil and hazardous material spill drills, ensuring all emergency response teams were properly trained to handle any acci-

dental discharges, and that Tennessee was able to load over 24,000 gallons of F-76 and lube oil without any incidents.

Aboard Tennessee, minimizing waste and hazardous materials is a priority. The use of disposable material is kept to a minimum. When disposables are needed, biodegradable products are utilized whenever possible. Most laundry detergents and cleaning chemicals on board are “green.” Additionally personnel use a first in/first out program in order to ensure that products are utilized before they expire, therefore reducing the volume of materials entering into the waste stream.

Congratulations again to all 29 of the FY 2015 CNO Environmental Award winners for their steadfast commitment to environmental excellence. [📍](#)

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The Ohio-class ballistic missile submarine USS Tennessee (SSBN 734) returns to Naval Submarine Base Kings Bay.  
James Kimber