

Nominations Sought for CNO Environmental Awards Competition

This Year's Deadline is 10 January 2013

REAR ADMIRAL KEVIN Slates, Director, Chief of Naval Operations (CNO) Energy and Environmental Readiness Division (OPNAV N45), has called for nominations for the Fiscal Year (FY) 2012 CNO Environmental Awards competition.

Each year since 1962, the SECDEF has honored installations, teams and individuals for outstanding performance in promoting environmental stewardship.

Each year since 1962, the Secretary of Defense (SECDEF) has honored installations, teams and individuals for outstanding performance in promoting environmental stewardship. Since FY 2009, the awards have been staggered on a two-year cycle with large/small installations and industrial/non-industrial installations competing in alternate years. This year, Echelon II commands may submit nominations for each of the following award categories:

- Natural Resources Conservation (Large Installation)
- Cultural Resources Management (Installation)

- Cultural Resources Management (Individual or Team)
- Environmental Quality (Industrial Installation)
- Environmental Quality (Overseas Installation)
- Sustainability (Non-Industrial Installation)
- Sustainability (Individual or Team)
- Environmental Restoration (Installation)
- Environmental Excellence in Weapon System Acquisition, Small Program (Individual or Team)
- Environmental Planning (Team)
- Environmental Quality (Small Ship)

The achievement period for the FY 2012 CNO Environmental Awards is 1 October 2010 through 30 September 2012. Up to five nominations per category may be submitted for each of the individual/team and ship award categories. There is no restriction on the number of installation nominations that will be accepted for the installation award categories.



The guided-missile frigate
USS Thach (FFG 43).
MC1 Steve Smith



The guided-missile destroyer
USS Sterett (DDG 104).
Senior Chief MC Joe Kane



The guided-missile destroyer USS Momsen strives to set the example for environmental stewardship throughout the Navy.
MC Seaman Jerine Lee

All nominees will be judged qualitatively relative to six criteria. Following is a list of the criteria and a brief explanation of each. (Note: Criteria vary somewhat for the Weapons System Acquisition category.)

1. Program Management

Was there a management structure system in place? Did the nominee demonstrate improvement over the period under consideration?

2. Technical Merit

Did the nominee use innovative techniques? Were these techniques effective in preserving or enhancing the environment?

3. Orientation to Mission

Did the program contribute to the successful execution or enhancement of the nominee's military readiness/civil works mission? Was there substantive involvement of individuals directly responsible for the military readiness or civil works mission?

4. Transferability

Can others adopt this program elsewhere within and/or outside of the Department of Defense? Was some progress made in the transfer process?

5. Stakeholder Interaction

Did the program interact with the surrounding community, state and local regulators, and non-governmental organizations (U.S. only)? Was environ-

mental awareness and community involvement enhanced for base personnel and residents of military housing (overseas only)?

6. Project Impact

Will the technique and/or program endure over time? Is there a framework in place to build on/improve the nominee's accomplishments going forward?

Nominations are due to N45 no later than 11:59 p.m. Eastern Standard Time, 10 January 2013. Echelon II commands must submit nomination packages electronically via the CNO Environmental Awards website at <http://cnoenviroawards.com>. No paper copy or CD submissions will be accepted. Each Echelon II command will be provided a username and password for logging into the system to upload nomination packages.

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CNO winners will advance to the Secretary of the Navy (SECNAV) Environmental Awards level of competition. SECNAV winners will advance to the SECDEF competition in all categories except the Environmental Quality—Small Ship award, which has no equivalent at the SECDEF competition level. The FY 2012 CNO Environmental Award winners will be honored at a ceremony in July 2013 at the U.S. Navy Memorial in Washington, DC.

For more information about the CNO Environmental Awards Program, visit <http://greenfleet.dodlive.mil/environment/awards/cno-environmental-awards>.

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New Website Highlights Navy Environmental Training Needs

New On-Line Resource is a One-Stop-Shop

THE NAVY'S ENVIRONMENTAL Readiness Training Program (NERTP) has developed a new website on the Defense Environmental Network & Information eXchange (DENIX) platform designed to serve as a comprehensive resource for Navy environmental training needs. It includes links to Navy training organizations, the latest environmental training catalog, and information on upcoming meetings.

The NERTP performs various functions including:

- Defines environmental and natural resources training requirements
- Identifies training priorities
- Recommends actions for resolving training issues
- Recommends changes to the Navy Training Systems Plan



The NERTP website features links to the training organizations, meeting information, and provides information on the Navy Environmental Readiness Training Program.

Why is training important to you? Environmental training is an important part of daily activities for Navy personnel and directly affects mission achievements. Current training offerings cover a variety of discipline areas including the

National Environmental Policy Act, hazardous materials management, and risk communications.

The site includes an easy-to-use template that streamlines the approach for requesting new training and provides the steering committee with relevant information necessary to design a new course.

For more information on the NERTP or to request a course, please visit https://denix.osd.mil/denix_secure/nertp (username and password required). [📍](#)

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Being Green in the Evergreen State

Energy & Water Conservation Are an “All Hands” Effort

THE PACIFIC NORTHWEST is traditionally known for its proactive stance towards sustainability. Energy and water conservation are a major part of the Navy’s efforts in supporting this goal. A brief sampling of the regional Navy achievements include:

1. Naval Station (NAVSTA) Everett’s achievement of 57.3 percent reduction in water consumption relative to the Fiscal Year 2007 baseline
2. Implementation of a water management policy to cease watering of non-essential areas during the summer months
3. Naval Undersea Warfare Center Division Keyport’s geothermal heat pumps and solar water heating system technologies enabling them to avoid purchasing 650 million British Thermal Units of fossil fuel energy annually
4. Puget Sound Naval Shipyard and Intermediate Maintenance Facility proactive pursuit of sustainable lighting options such as photo-sensors and Light Emitting Diodes
5. Naval Air Station (NAS) Whidbey Island’s recent completion of a Bio-Mass feasibility study.



These vehicles are among NAVSTA Everett’s fleet of 49 electric vehicles. Eleven more such vehicles are on order.

sustainability stance? How does the Navy stay ‘green’ in Washington—the Evergreen State? The answers are a coordinated and targeted regional and installation level strategies including:

1. Implementing early energy and water reviews of not just traditional energy and water projects but military construction and special projects
2. Utilizing all resource ‘tools’ in the Energy Manager’s ‘tool box,’ including Utility Energy Service Contracts
3. Focusing more on local low cost/no cost initiatives

4. Investigating new technologies and processes
5. Strengthening all partnerships with supported commands and activities.

Energy and water conservation sustainability are an “all hands” effort.

Regional sustainability efforts are reinforced by new guidance. To quote the recently released Naval Operations Instruction, OPNAVINST 4100.5E, “Navy policy is to ensure energy security and legal compliance, by increasing infrastructure energy efficiency and integrating cost-effective and mission-compatible alternative energy technologies while providing reliable energy supply ashore.” To quote Kermit the Frog, “It isn’t easy being green.” But with a strong culture of sustainability and a plan for a way forward, sustainability can be maintained and strengthened. ⚓

Energy and water conservation sustainability are an “all hands” effort.

In the transportation arena, NAVSTA Everett currently has 95 percent of all vehicles on base using alternative fuels and utilizes 49 slow moving vehicles and light trucks powered by electricity. NAS Whidbey Island is a Navy leader in recycling. Full implementation of organics recycling in all areas should increase its diversion rate to about 90 percent.

With resource reductions and operational requirement increases, what is the way forward to maintain this strong

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Atlantic Test Ranges Green Team Committed to Energy Efficiency

Green Successes Mark One-Year Anniversary

WHILE OCTOBER IS National Energy Action Month, energy reform and energy conservation are more than ideas to think about only one month out of the year. The Naval Air Systems Command (NAVAIR) is committed to managing its energy consumption ashore and afloat by modifying energy intensive behaviors. Operating more efficiently will save money by reducing the amount we spend for power and fuel. These savings can be reinvested to strengthen combat capability and are good for the Sailor and Marine, taxpayer and environment.

NAVAIR is committed to managing its energy consumption ashore and afloat by modifying energy intensive behaviors.

Individuals at the Atlantic Test Ranges (ATR) at the Naval Air Station Patuxent River, Maryland are committed to doing their part to support NAVAIR's energy objectives. In August 2012, ATR celebrated the one-year anniversary of its "Green Team." The team's goals have been to encourage green initiatives at ATR. Comprised of Range Sustainability, Facilities, Information Technology and management personnel, as well as workforce volunteers dedicated to the environment, the group develops energy-saving initiatives that support NAVAIR and Naval Air Warfare Center Aircraft Division (NAWCAD) energy goals.

Rob Vargo, ATR Associate Director, is proud of the team and their efforts, and says, "The response to the Green Team has

been remarkable. Not only is the team motivated and excited to research initiatives that will save energy and money, the ATR workforce has also been a big help in suggesting projects."



Photocells were mounted to all new LED lights at ATR to operate the lights from dusk until dawn only.



400-, 250- and 150-watt bulbs were replaced with LED lights ranging from 10 to 24 watts. These exterior lighting upgrades resulted in an energy savings of 80 to 95 percent.



75-watt halogen bulbs were replaced with 15-watt LED lights for 81 percent energy savings.

One of the team's first initiatives was to develop an electrical baseline for the ATR complex with support from the NAWCAD Energy and Environmental Effort Efficiencies office. Electrical usage is now being tracked on a monthly basis. The Green Team also focused on lighting upgrades—installing lighting timers in the ATR facility, testing occupancy sensors in another of ATR's buildings, and replacing outdated and inefficient 400-watt metal halide exterior lights with 26-watt Light Emitting Diode (LED) lights.

These changes were based on recommendations from the Southern Maryland Electric Cooperative (SMECO)—the local electric company, which worked with the Green Team to conduct lighting audits.

Recently, the Green Team submitted applications to SMECO to earn ATR a \$150 credit for each exterior LED lighting replacement, for a total savings credit of \$3,300. Coordination with SMECO also proved valuable when the electric cooperative installed no-cost programmable thermostats in two ATR buildings through the company's CoolSentry Program. This initiative not only helps reduce heating and cooling costs in these buildings, but helps avert regional energy shortages during periods of high demand and saves ATR money with an annual credit on electric bills.

The team is also working with ATR technical experts to find savings that come with newer technologies to provide

superior mission systems that support test and evaluation. Newer technologies are often much more energy efficient and the Green Team plans to document these savings and encourage additional efficiency measures where possible. The Green Team is also conducting research on other substantial projects for the future, like alternative heating and cooling technologies, solar power and water conservation techniques.

According to Vargo, everything is on the table. "If it makes ATR more efficient while curbing customer costs, we'll consider it for improvement."

If it makes ATR more efficient while curbing customer costs, we'll consider it for improvement.

—Rob Vargo

Outreach has also been an important part of the Green Team's mission. The team held a "Turn off the Juice" campaign during National Energy Awareness Month 2011, and cleaned up nearby beaches and organized a recycling drive for Earth Day 2012. To celebrate National Energy Action Month 2012, the ATR Green Team hosted events throughout October to share information on energy efficiency, culminating in a competition at the end of the month to test energy-efficient hand dryer models.

Reflecting on their first year, Melanie Anderson, Green Team lead, says, "As a new team, we didn't know what to expect. Our plan was to simply collect and research ideas that we could present to management. Fortunately, many of those ideas had already been percolating at ATR and leadership has been extremely supportive. We started with small projects we could quickly complete and established a process to review energy usage to help monitor future savings." ↴

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Frangible Ammunition—Getting the Lead Out

A Good Solution for Human Health & the Environment

LEAD-BASED AMMUNITION is used throughout the Navy during Small Arms Qualification Training. This live-fire training is vital to the Navy's mission areas of Anti-Terrorist Force Protection, Visit Board Search and Seizure, and Unit Security. The majority of this type of training is executed on Commander, Navy Installations Command (CNIC) installations within Small Arms Training Centers.

The Department of Defense as a whole currently expends about three billion rounds of small and medium caliber ammunition based on lead compounds such as lead azide and lead styphnate. The use of lead-based ammunition results in environmental cleanup costs associated with air purification (e.g., ventilation cleaning, filter change, etc.), periodic removal of lead slugs from live-fire impact berms, structural damage to targeting systems, lights, baffles, and the necessary wipe-down of facility floors, walls and fixtures to remove lead-based particulate. In addition, because of these concerns, lead-based ammunition is also becoming less available.

Recently, an alternative has been made available called "frangible" ammunition. This ammunition is lead-free and can deliver the same capability with respect to training as its lead-based counterpart. Increased use of this type of round will result in a healthier training environment, reduced costs with respect to environmental cleanup, and less damage to facility infrastructure.

A closer examination is necessary to understand the negative aspect of lead-based ammunition. There are several key areas that need to be factored into an analysis of any comparison between lead-based rounds and frangible rounds. These include:

- **Environmental lead removal costs**
These vary based upon the size of the impact area and the type of small arms range.
- **Human health hazard**
The use of lead-based ammunition for training poses a health risk to the trainee. Handling of lead-based ammunition and contaminated weapons can produce elevated lead levels in the blood by absorption or

ingestion. Lead-based materials are increasingly being linked to several serious health conditions.

- **Damage to facilities**
Over time, use of lead-based ammunition causes a considerable amount of damage to the facility's infrastructure and equipment. Vent ducting penetration, baffle destruction, target deployment/retrieval system damage are all related to the penetrating type of round that is typically used for training. CNIC estimates corrective maintenance issues to be in the range of \$1 million per year.
- **Mission readiness degradation due to facility closure**
Environmental remediation, corrective maintenance or high lead levels can result in a facility being closed and unavailable for training for weeks or months. In numerous cases, the range may be the only suitable facility in the area.

The use of frangible ammunition will mitigate and possibly eliminate these negative consequences to a significant extent. The Navy's Center for Security Forces (CENSECFOR) is operating several ranges where the only authorized ammunition is frangible. "It is our belief that using anything other than frangible ammunition would significantly reduce the lifespan and usability of our modular ranges in Mayport, Florida and Chesapeake, Virginia," says Dan Jasper, Logistics and Training Readiness Manager for CENSECFOR.

Randy Jackson, Navy Facilities Engineering Command Small Arms Range (SAR) Director, who is responsible for certification of the CNIC's SAR ranges, supports the use of frangible rounds for training.

"The Navy's frangible rounds are lead-free and a big advantage is that the waste stream is typically collected in exhaust filters and high-efficiency particulate arresting vacuum bags and can be disposed of as regular waste. However, the rounds themselves are not completely nontoxic as they typically include mixtures of other metals or metal alloys. They still present a potential health hazard if a proper ventilation system is not provided," said Jackson. (Note: Some alloys include nickel, which produces some respiratory toxicity.)

The use of frangible rounds will ensure that a facility incurs less damage and maintenance costs than lead-based rounds. Frangible rounds are much safer than ball rounds because they do not ricochet—they disintegrate and essen-

tially turn to dust when impacting a harder surface. Shown below is a list of Navy approved frangible ammunition.


U.S. NAVY APPROVED LEAD-FREE FRANGIBLE AMMUNITION

Identification Code	Caliber	Frangible or Not
AA16	9mm	Frangible
AA17	5.56mm	Frangible*
AA40	5.56mm	Frangible
AA86	00 Buck	Frangible

*Frangible and Reduced Ricochet, Limited Penetration

The current drawback to using frangible ammunition is cost and availability. The frangible round is more expensive than a regular lead round; however, cost is expected to decrease with increased demand. The armed forces use between 300 million and 400 million rounds of small-caliber ammunition each year. Frangible rounds are currently not produced in the quantity necessary to support the Navy's training requirements. There is no

timetable for fully incorporating frangible ammunition into the Navy training regimen.

Facility damage through usage and health hazards is expected wherever there is live-fire training being conducted. While these negative consequences will never be completely eliminated, it is clear the use of frangible ammunition is one step toward mitigating the inherent risks associated with small arms qualification training. 

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So if you have a success story that you'd like us to promote in our summer 2013 issue, you'll need to submit your text and images by Friday, 19 April 2013. Any submissions received after this date will be considered for our fall 2013 issue.

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773-376-6200 if you have any questions or would like to discuss your story ideas.

As a reminder, your Public Affairs Officer must approve your article before we can consider it for inclusion in the magazine.

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Currents Deadlines

Summer 2013 Issue: Friday, 19 April 2013
Fall 2013 Issue: Friday, 19 July 2013
Winter 2014 Issue: Friday, 18 October 2013
Spring 2014 Issue: Friday, 17 January 2014

You can also refer to your *Currents* calendar for reminders about these deadlines.

