

Naval Safety Center Serves Up Fleet Environmental Training

Online Initiative Blended with Afloat Environmental Protection Coordinator Course

THE NAVAL SAFETY and Environmental Training Center (NAVSAFENVTRACEN), a leader in naval environmental protection training and Distance Learning, recently implemented their blended online initiative with the Afloat Environmental Protection Coordinator (AEPC) course.

AEPCs act as the key environmental advisor to commanding officers and are required on all afloat units. They play a critical role, ensuring national and local environmental requirements are met during underway and in port operations. AEPC training is a requirement for qualification as an AEPC and covers a variety of topics, from oil spill contingency planning to environmental compliance evaluation and assessment. Until recently, students were required to attend a two-day resident course in San Diego, CA, Norfolk, VA, or at one of a few Video Tele-Training (VTT) facilities. In either case, students were required to travel to the location where the training was offered, often costing valuable travel dollars, transit time, and mission disruptions.

Enter the Age of Cloud-based Collaborative Learning Environments (CLE)

Partnering with the Naval Postgraduate School (NPS), NAVSAFENVTRACEN developed a course architecture, integrating the Sakai CLE, hosted at NPS, with Defense Connect Online (DCO). (Note: Sakai is an open source educational software platform distributed under the Educational Community License.) This new training modality provides both asynchronous (student centric) and synchronous (instructor led) components with real life scenarios that immerse the student in the role of the

AEPC onboard ship. Within the course structure, students must respond to a variety of real world events that weave them through the AEPC knowledge base, requiring critical thinking and problem solving. The solo work performed by the student is interspersed with short, strategically-scheduled, live sessions with the instructor, from both a presentation and 'professor office hours' perspective, where students can join a virtual classroom established by the instructor, for live one-on-one or group discussions.

Choice, Freedom & Savings

The Sakai-based global online course is 16 hours of curriculum, the same as the resident and VTT venues. Students are given five days to complete the course, providing a convenience to work within varying schedules and commitments to complete and submit assignments and engage with the instructor, all without the need to go on Temporary Assigned Duty (TAD). "Our vision is to offer choice to our customer in how and where they train, by using innovative and emerging technologies like Sakai and DCO," said CDR Greg Cook, NAVSAFENVTRACEN Commanding Officer. The Sakai and DCO portal is available 24/7 and can be accessed from practically any computer and location with a broadband internet connection.

Course Manager and Instructor, Michelle Smith says that students are attending the training from multiple locations; ship, office, home and even an internet café. "They appreciate the flexibility, including the ability to access the training using their own equipment," said Smith. The Java enterprise-based Sakai and Flash-enabled DCO do not require an application download, allowing fast ease of access through an internet browser. Since all materials are stored on the cloud, both instructor and students can access the portal from multiple computers and locations based on their individual needs, providing unparalleled choice and access freedom.

Through use of Sakai and DCO, NAVSAFENVTRACEN has built an innovative and collaborative training platform that provides afloat commands with highly trained AEPCs ready to support environmental mission requirements, without the high cost associated with travel and TAD. 

The Basics About NAVSAFENVTRACEN

NAVSAFENVTRACEN PROVIDES SAFETY and environmental training across the Navy and Marine Corps enterprise. In FY11, the command trained 9,200 students at more than 40 worldwide locations using a variety of modalities including resident, video-tele-training and blended Distance Learning.

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Jackalynne Pfannenstiel Guest Speaker at China Lake Groundbreaking

13.78 Megawatt Photovoltaic Solar System to Be the Largest in the Navy

ASSISTANT SECRETARY OF the Navy (Energy, Installations & Environment) Jackalynne Pfannenstiel was the guest speaker at the ceremonial groundbreaking of a 13.78 megawatt photovoltaic solar plant being built on 118 acres onboard the Naval Air Weapons Station (NAWS) China Lake in California. NAWS China Lake Commanding Officer Jeffrey A. Dodson hosted the event, which was held on 18 January 2012 at the construction site under sunny skies.

The plant is the first 20-year power purchase agreement awarded under Federal Legislation 10 USC 2922a—a long-term contracting authority mechanism. SunPower Corporation will construct, operate and maintain the system and sell the power to the Navy, while Metropolitan Life, the financier, will own the system. Under the agreement, NAWS China Lake will purchase \$80 to \$100 million worth of energy, at a negotiated price, from SunPower Corporation during the next 20 years, saving the Navy approximately \$13 million in energy costs with no start-up costs to the government. It is expected to provide 30 percent of China Lake's energy requirements.

When completed in the fall of 2012, the system will be the largest solar system in the Navy and the second largest system in the Department of Defense. The largest is at Nellis Air Force Base, NV.

"China Lake is an energy heartland for the state, for the country and for the Navy," said Pfannenstiel, referring to Coso Geothermal, the geothermal plant on base that produces about 200 megawatts of base-load power.

However, to meet the Department of the Navy's goal of meeting half of its energy consumption with alternative sources by 2012, Pfannenstiel said more renewable power from fertile sites such as China Lake is still needed. In fact, she said, the Navy is going to need to add an additional 800 to 1,200 megawatts of renewable capacity to its arsenal.

Pfannenstiel feels it can be done by employing "the best technologies, on the best sites, with the best partners."

According to Pfannenstiel, the best technologies are those that provide clean, sustainable, renewable power at prices

that are comparable to utility prices. She noted that the cost of producing energy from renewable sources has fallen significantly in recent years and she predicts it will continue to fall as technologies continue to advance. However, she noted, she hasn't seen any forecast that shows utility rates decreasing over the next decade.

Technologies that reduce the need for energy are also important, Pfannenstiel stressed. "The cheapest, cleanest, most secure kilowatt hour is the one we don't need to use. Energy efficiency technologies, as well as renewable technologies, will help us meet our 50 percent reduction goals," Pfannenstiel said.

China Lake is an energy heartland
for the state, for the country
and for the Navy.

—Jackalynne Pfannenstiel

Pfannenstiel said the best sites are those that provide abundant supplies of sun, wind, biomass or geothermal steam and are compatible with the military missions. "We must always be cognizant that some technologies at some locations are perfectly compatible with the military use of those sites, and others aren't," she said. "Having said that, however, I want to stress that concerns about mission compatibility can often be resolved with good faith efforts by all parties and, to meet our goals, the Navy must commit to seeking resolution where possible."

The final step in reaching the Navy's intended goal is great partners, noting this project had a series of partners, including SunPower Corporation and the State of California.

"Our success at meeting our alternative energy goals depends on our effectiveness at working with financial, environmental, utility and governmental partners," she stressed.

"The Navy has a long-standing record of identifying energy and water conservation opportunities across our facilities," said Commander, Navy Region Southwest (NRSW) Rear Adm. Dixon Smith. "For many years we have focused on energy efficiency improvements at every one of our shore installations," he continued.

To meet the many energy challenges now and in the future, Smith noted that the Southwest team would continue to focus on three areas:



ASN (E&E) Jackalyne Pfannenstiel (third from left) joins (left to right, first row) NAVFAC Southwest Capt. Clifford Maurer, NAWA China Lake Commanding Officer Capt. Jeffrey Dodson, NRSW Commander Rear Adm. Dixon Smith, Naval Air Warfare Center—Weapons Division (NAWCWD) Commander Mat Winter and SunPower Corporation President Howard Wenger in tossing the first shovel of dirt for the groundbreaking ceremony of the 13.78 megawatt photovoltaic solar power plant being built onboard NAWA China Lake. Watching the event are (left to right, second row) MetLife Private Securities Director Mark Bisci; City of Ridgecrest Councilman Jason Patin; Deputy Assistant Secretary of the Navy (Energy) Thomas Hicks; Kern County Supervisor Jon McQuiston; Deputy Director of the Governor’s Office of Planning and Research, Governor’s Military Advisor Wade Crowfoot; California Energy Commission Chair Dr. Robert Weisenmiller; NAWCWD Executive Director Scott O’Neil and Javier Reyes, field representative for California Assemblywoman Shannon Grove.

1. Instilling a culture of conservation throughout the Navy
2. Pushing toward energy efficiency and increased use of renewable energy sources
3. Ensuring energy security across Navy Region Southwest bases

“We are continuing to transform our culture from one of consumption to one focused on conservation,” the admiral said, noting they are doing this through greater transparency, by sharing data and information with their Sailors, civilians and senior leadership.

“Part of this culture change is to instill a sense of ownership and accountability for energy consumption, from the individual Sailor and families living in quarters, across our military and civilian employees in our work spaces, to our leadership who oversee a wide variety of missions across the Southwest,” Smith said.

He emphasized that as the culture change takes root, they also need to improve energy efficiency, reducing utility demand and cost.

Smith noted that when new buildings are constructed, the team focuses on total lifecycle costs, with the intent to

meet the mission in modern infrastructure that minimizes the Navy’s cost.

While the Southwest team has accomplished much, Smith said, there is still more to do, continually striving to identify significantly more opportunities to reduce energy consumption, improve shore efficiency and continually find smarter ways to accomplish the military’s mission.

“Blazing new trails is never easy and there is an extraordinary new level of effort that went into market research and preparing complicated acquisition documentation, navigating complicated regulation incentives, and doing technical analysis to put this together,” said Naval Facilities Engineering Command (NAVFAC) Southwest Commanding Officer Capt. Clifford Maurer, noting two other photovoltaic systems are already in the system—a one-megawatt photovoltaic system at Marine Corps Air Ground Combat Center Twentynine Palms and another one-megawatt system at Marine Corps Logistics Base Barstow. [↴](#)

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NESDI Program Releases FY11 Year in Review Report

Eight Case Studies Highlight Successful Transitions of New Technologies into the Fleet

THE NAVY ENVIRONMENTAL Sustainability Development to Integration (NESDI) program has released its annual report to highlight the program’s accomplishments in Fiscal Year (FY) 2011.

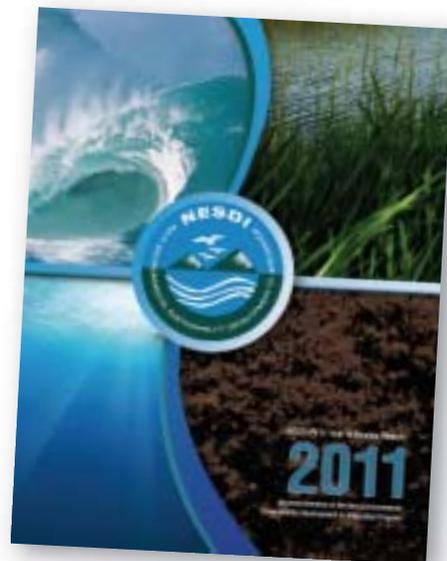


The report, entitled “NESDI FY11 Year in Review Report: Accomplishments of the Navy Environmental Sustainability Development to Integration,” contains a financial review of program expenditures as well as insights into projects that were particularly successful in demonstrating the use of an innovative technology or collecting critical information to enhance the efficiency of environmental management programs across the Navy. The following eight projects are presented as case studies in the FY11 report:

The technologies, studies, and models highlighted in this report support the Fleet through efficient and effective execution of environmental programs.

The NESDI program relies on all Navy personnel to help identify environmental concerns and support the implementation of resultant solutions. There are many ways to participate in the NESDI program, including:

- Submitting and validating environmental needs
- Reviewing technologies already in development
- Supporting transition efforts in your organization or at your installation
- Acting as a Principal Investigator on a NESDI project



PROJECT	DESCRIPTION
Operational Range Clearance—Alternative Green Targets	This project demonstrated and validated an alternative green tank target that lacks the hazardous components in tanks currently used on ranges. The green target is an effective replacement for the diminishing supply of M60 tanks.
Direct-Push and Point-and-Detect, In Situ Sensors for Perchlorate	This project validated the use of direct push and point-and-detect sensor systems for field use to measure perchlorate, either for rapid screening and monitoring purposes or for contaminant source characterization of perchlorate in groundwater or surface waters.
Evaluation of Corn Hybrid Polymer Blast Media for the Removal of Coatings from Delicate Substrates	This project provided an effective, environmentally preferred media to remove coatings from difficult, high-value, Naval Sea Systems Command and Naval Air Systems Command delicate substrates, including fiberglass, aluminum, carbon fiber, graphite, and Kevlar.
Sustainable Naval Facilities	This project identified and evaluated a web based assessment tool that Navy personnel can use to reduce the environmental impact of the Navy’s existing facilities through the use of sustainable practices, policies, and technologies.
Dredge Spoil Management Alternatives Initiation Decision Report (IDR)	This project identified the Navy sites requiring dredging, determined the potential beneficial reuse of the dredged material from these sites, and evaluated the viability of using contaminated dredge spoils as a cement kiln feed stock.
Abiotic Treatment of 1,2,3-Trichloropropane (TCP) to Protect Drinking Water Resources	This project demonstrated that zero valent zinc can be used to treat TCP in groundwater.
Waste-to-Clean Energy (WtCE) IDR	This IDR identified WtCE technologies for potential implementation across the Navy. The IDR includes the development of model WtCE case studies to facilitate technology implementation at different Navy regions and/or installations.
Predictive Trajectory Model for Oil Spills for Navy Harbors	This project will improve the accuracy of the existing models to predict oil trajectories in Navy harbors and provide a validated modeling tool for the Navy On-Scene Coordinators with accurate information.



Communication is Key at NESDI Stormwater In-Progress Review

IN AN EFFORT to address the emerging requirements associated with the ongoing challenges of effectively managing stormwater at Navy facilities, the NESDI program convened a meeting of stormwater end users, researchers and policymakers in San Diego on 10-11 January 2012. Communication, communication and more communication was the overriding theme of this two-day In-Progress Review (IPR)—better and more frequent communication among program personnel, Principal Investigators and end users who share in the responsibility to ensure that NESDI projects are efficiently executed and results are successfully transitioned.

Nearly three dozen participants from across the Navy gathered to hear briefings about ongoing projects, provide valuable feedback to Principal Investigators, and brainstorm on a roadmap for future program stormwater investments. In addition to personnel from the program’s resource sponsor organization (CNO N45), end users from Naval Base San Diego, Naval Facilities Engineering Command (NAVFAC) Southwest, NAVFAC Northwest, NAVFAC Hawaii, and NAVFAC Mid-Atlantic joined NESDI personnel in person and over the phone to ensure existing projects and future investments are properly focused.

Follow-on tasks include a stormwater investment strategy (roadmap) and other IPRs to be held in other Navy regions to bring more end users into the fold. The NESDI program’s other IPRs will be held this year on 8–10 May in Port Hueneme, California and 19–20 June in Arlington, Virginia. For more information, contact Cindy Webber at cynthia.webber@navy.mil and 760-939-2060.

- Providing demonstration sites for various NESDI projects
- Staying up-to-date by regularly visiting the program’s web site

The NESDI program is the Navy’s environmental research and development demonstration and validation program, sponsored by the Chief of Naval Operations Energy and Environmental Readiness Division (CNO N45) and managed by the Naval Facilities Engineering Command. The mission of the program is to provide solutions by demonstrating, validating and integrating innovative technologies, processes, materials, and filling knowledge gaps to minimize operational environmental risks, constraints and costs while ensuring Fleet readiness.

For a hardcopy of the NESDI program’s FY11 and other Year in Review reports, please contact Lorraine Wass at 207-384-5249 or ljwass@surfbest.net. An electronic (pdf) version of the report can also be downloaded from the program’s web site at www.nesdi.navy.mil. 

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Fiscal Year 2011 CNO Environmental Award Winners Announced

Annual Awards Recognize Outstanding Environmental Stewardship

VICE ADMIRAL WILLIAM BURKE, then-deputy chief of naval operations for fleet readiness and logistics (N4) (now deputy chief of naval operations for warfare systems (N9)), announced the winners in the fiscal year (FY) 2011 Chief of Naval Operations (CNO) Environmental Awards competition on 22 February 2012.

Your dedication to environmental stewardship is commendable and your actions exemplify the Navy's commitment to protecting and preserving the environment.

—Vice Admiral William Burke

The annual awards program recognizes Navy ships, installations, and people for outstanding performance in promoting environmental stewardship. Each year, environmental subject matter experts review nominations from commands around the world and select winners for each of the award categories. For the FY 2011 competition, 30 winners were selected in 10 award categories.

In a Naval message announcing the winners, Burke commended the winners.

“Congratulations to all award winners and nominees,” he said. “Your dedication to environmental stewardship is commendable and your actions exemplify the Navy’s

commitment to protecting and preserving the environment. Well done.”

Listed alphabetically within each category, the FY 2011 CNO Environmental Award winners are:



Natural Resources Conservation, Small Installation

- Fleet Logistics Center—Puget Sound, Fuel Department, Washington
- Naval Support Activity Panama City, Florida
- Pacific Missile Range Facility Barking Sands, Hawaii

Natural Resources Conservation, Individual or Team

- Naval Base Guam Public Works Department Environmental Division, Marianas
- Naval Support Activity Panama City Environmental Staff, Florida
- Pacific Missile Range Facility Integrated Natural Resources Management Plan Implementation Team, Hawaii

Cultural Resources Management, Installation

- Commander, Fleet Activities Yokosuka, Japan
- Joint Base Pearl Harbor-Hickam, Hawaii
- Naval Base Guam, Marianas



Naval Base Guam.
MC2 Peter Lewis

Environmental Quality, Non-industrial Installation

- Commander, Fleet Activities Sasebo, Japan
- Commander, Fleet Activities Yokosuka, Japan
- Naval Base San Diego, California

Environmental Quality, Individual or Team

- Awni M. Almasri of U.S. Naval Support Activity, Bahrain
- Naval Supply Systems Command Fleet Logistics Center Pearl Harbor Environmental Quality Team, Hawaii
- Navy Region Center Singapore Environmental Sustainability Team

Environmental Quality, Large Ship

- USS Carl Vinson (CVN 70)
- USS Enterprise (CVN 65)
- USS Ronald Reagan (CVN 76)

Sustainability, Industrial Installation

- Naval Weapons Station Seal Beach, California (including Detachments Fallbrook and Norco)
- U.S. Naval Ship Repair Facility and Japan Regional Maintenance Center, Yokosuka, Japan
- U.S. Navy Fleet Readiness Center East, Cherry Point, North Carolina

Environmental Restoration, Installation

- Naval Air Weapons Station China Lake, California
- Naval Base Ventura County, Point Mugu-Port Hueneme-San Nicolas, California
- Portsmouth Naval Shipyard, Maine

Environmental Restoration, Individual or Team

- Mare Island Investigation Area H1 Restoration Team, Naval Facilities Engineering Command Base

The aircraft carrier USS Enterprise (CVN 65).
MC3 Nick C. Scott



Realignment and Closure Program Management Office, California

- Silver Strand Training Complex Navy Installation Restoration Site 11 Team, Naval Base Coronado, California
- Vieques Naval Installation Project Management Team, Puerto Rico

Environmental Excellence in Weapon System Acquisition, Large Program, Individual or Team

- F/A-18E/F & EA-18G Program Office, PMA 265—Green Hornet Team, Patuxent River, Maryland
- PMA-290 Environment, Safety, and Occupational Health Team, Patuxent River, Maryland
- USS Virginia (SSN 774) Class Test & Evaluation Environmental Team, Washington Navy Yard, D.C.

All CNO winners advanced to the Secretary of the Navy level of competition. A ceremony honoring the winners and recognizing their achievements will be held 5 June 2012 at the United States Navy Memorial in Washington, D.C. ⚓

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NAVSUP WSS Releases First-Ever Buy It Green Guide

Resource Designed to Promote Sustainable Purchasing

EXECUTIVE ORDER 13423, “Strengthening Federal Environmental, Energy, and Transportation Management,” mandates that sustainability buying is included in all transactions except tactical vehicles and equipment. This executive order along with other legal statutes requires the Department of Defense (DoD) to increase the use of sustainable materials.

The DoD Strategic Sustainability Performance Plan goal is that 95 percent of all applicable DoD procurements will include sustainability requirements. To support meeting that goal, Naval Supply System Weapon Systems Command (NAVSUP WSS) Code 0772, the NAVSUP lead for green procurement, has compiled the *Buy It Green Guide* for purchasers to use to incorporate sustainable products into procurements.

The guide also discusses (and debunks) the top three myths surrounding sustainable products.

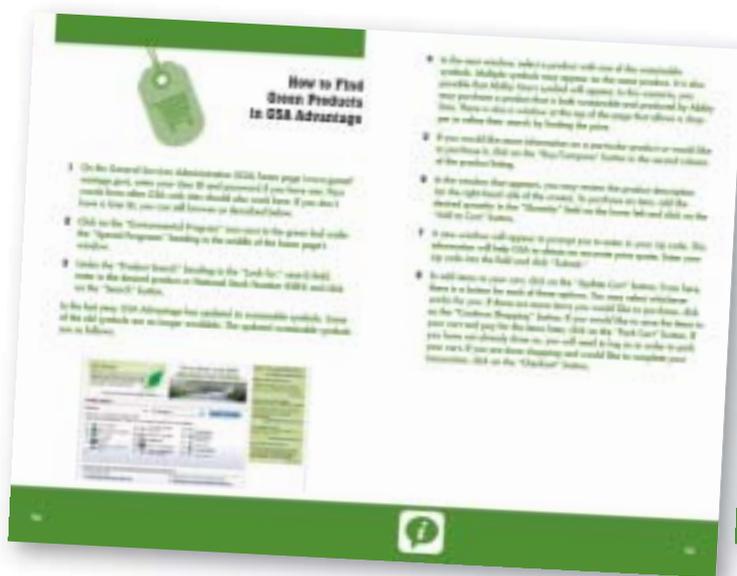
The *Buy It Green Guide* serves as a single comprehensive source for green procurement from procurement through purchasing. The guide includes integrating requirements mandating the use of sustainable materials into contracts and statements of work, an extensive list of environmentally sustainable products within the DoD supply system and step-by-step instructions on locating and ordering green products online via the following websites:

1. GSA Global
2. GSA Advantage
3. DoD EMALL
4. Ability One
5. Federal Prison Industries

To create the guide, a list of the Navy’s highest demand items from the Defense Logistics Agency

(DLA) and the General Services Administration (GSA) was compiled. These products ranged from paper towels to air conditioners. The products classified as sustainable by GSA and/or DLA were listed in the guide. Green substitutes were found for popular products that were not designated as sustainable by GSA or DLA. These substitutes were similar to the original product but possessed environmentally sustainable qualities while still being within the same price range, performed just as well and are readily available.





The *Buy It Green Guide* includes step-by-step information on how to order from several web sites.



Each product listing features icons explaining what makes it green and where the product can be found, along with pricing information.

A pdf of the *Buy It Green Guide* can be found at https://www.navsup.navy.mil/ccpmd/purchase_card/buy_green. The *Buy It Green Guide* will be updated periodically as new products and new information become available. Please do your part and buy sustainably as much as possible. 

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BE PART OF OUR FALL ISSUE

Submissions Are Due by 20 July

We're already planning our Fall 2012 issue. And you can be a part of it! If you have a story that you want us to consider, you need to submit your final text and images by 20 July 2012.

The power of your experiences is even greater when you share them with our readers.

Your chances of being published in *Currents* are dramatically increased if you follow our article template. Simply request this easy-to-use template by sending an email to Bruce McCaffrey, our Managing Editor, at bruceMcCaffrey@sbcglobal.net. Bruce is available at 773-376-6200 if you have any questions or would like to discuss your story ideas.

We look forward to reading your stories about all the great work you're doing to optimize the Navy's energy use and serve as good stewards of the environment.

Currents Deadlines

- Fall 2012 Issue: Friday, 20 July 2012
- Winter 2013 Issue: Friday, 19 October 2012
- Spring 2013 Issue: Friday, 18 January 2013
- Summer 2013 Issue: Friday, 19 April 2013

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