



The 2011 Secretary of Defense



ENVIRONMENTAL AWARDS





The Department of Defense (DoD) is confronted with a complex range of environmental issues, perhaps more than any other organization in the world. We protect more than 28 million acres of land that is essential for mission support and weapons testing, and our stewardship has preserved pockets of rich ecological diversity across the Nation. Hundreds of endangered species live on DoD installations—in fact, some of them are found exclusively on DoD land. Preserving this diversity is a little known yet significant part of DoD's contribution to the life of the United States. The Department also protects a rich cultural heritage, including prehistoric burial mounds and the field where the Wright brothers learned to fly.

Throughout the Department, many people and organizations care for the environment. Today, we recognize the best. Since its inception in 1962, the Secretary of Defense Environmental Awards have grown to recognize achievements in the areas of natural resources conservation, cultural resources management, environmental quality, restoration, sustainability, and environmental excellence in weapons systems acquisition. This year, we have added another sustainability category to recognize individuals and

teams that support efficient and sustainable use of our natural resources.

All of the nominees strive to promote environmental practices and partnerships that reduce the Department's energy operating costs. We celebrate their successes not only because they enhance mission capability, but because they provide a sustainable, long-lasting, and flexible approach to national security.

We congratulate the nominees for their successful efforts to incorporate the protection of the environment into the defense of our country. Their good works are now part of a legacy of environmental ethics in the Department of Defense. I am humbled by each of their efforts and thank them for their exemplary service to our country.

Congratulations to the winners of the 2011 Secretary of Defense Environmental Awards.

Ashton B. Carter

Under Secretary of Defense for Acquisition, Technology and Logistics



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ABOUT THE AWARDS

Cultural Resources Management

An essential part of our mission is to protect our nation's heritage and cultural assets, such as historic sites and districts, archaeological sites, records, historic properties, and sacred sites. Through cultural resources management programs, the Department identifies areas likely to contain historical assets and works to protect these resources in partnership with Native American Tribes and historic preservation authorities.

Environmental Quality

The Department seeks to protect air and water quality, prevent and eliminate pollution, and implement environmental management systems that promote sound environmental practices while continuously improving performance. Meeting or exceeding all environmental requirements not only enhances the protection of our environmental assets, but also sustains our ability to effectively train and maintain readiness.

Environmental Restoration

The Defense Environmental Restoration Program restores property that has been impacted by historic defense practices. The Department works to restore more than 30,000 sites at active and closing military installations, as well as formerly used defense sites across the Nation and U.S. territories. Restoring these properties protects military personnel and the public from potential environmental health and safety hazards.

Natural Resources Conservation

The Department promotes the conservation of fish and wildlife, preservation of forests and other resources, and protection of endangered plant and animal species on our installations and other lands we hold in the public trust. Investments made in our natural resources preserve these valuable environmental assets for all current and future generations.

Sustainability

The Department seeks to extend the longevity of its operations by preventing or eliminating pollution at the source through practices that increase efficiency and sustainability in the use of raw materials, energy, waste, or other resources. Sustainable practices ensure the Department protects the valuable resources that are critical to mission success.

Environmental Excellence in Weapons Systems Acquisition

The Department makes a concerted effort to incorporate environmental, safety, and occupational health requirements into the weapons systems acquisition program's decision-making process. Adhering to these principles enhances the Department's acquisition process by ensuring that weapons systems keep the safety of personnel and the environment as a top priority.

CULTURAL RESOURCES MANAGEMENT, INSTALLATION

88th Air Base Wing Civil Engineering Directorate, Environmental Branch, Wright-Patterson Air Force Base, Ohio



Wright-Patterson Air Force Base (AFB) is renowned for both its strong leadership in military aviation and its rich aeronautical history. Covering over 8,145 acres, this complex base has a number of missions critical to national defense, including the development and acquisition of all existing and future aircraft weapons systems for the Air Force. Wright-Patterson AFB also harbors an impressive collection of cultural resources that are closely linked to some of our nation's most historic aviation events. These resources encompass a variety of historic buildings, prehistoric burial mounds, and the celebrated Huffman Prairie Flying Field, the National Historic Landmark site linked to the Wright brothers' 1904–1905 development of the world's first practical airplane. The installation's cultural resources team is dedicated to maximizing mission capability without compromising the historic integrity of the base or its resources, and focuses on the daily implementation of Wright-Patterson AFB's Integrated Cultural Resources Management Plan (ICRMP). This ICRMP provides the team with pertinent background information about the historic database and outlines procedures to meet applicable historic preservation statutes and avoid conflicts with the military mission. It also supports positive partnerships with community stakeholders, tribes, and the U.S. National Park Service.

Wright-Patterson Air Force Base's accomplishments included:

- Collaborating with a private architect to produce a new historic preservation guidebook. The guidebook helps civil engineers define and protect the historical significance of building features, districts, view sheds, and cultural landscapes. The guidebook thoroughly describes the character-defining features of the properties to help architects and design engineers maintain the cultural heritage of Wright-Patterson AFB.
- Completing adapted reuse of Building 20012 and meeting Antiterrorism/Force Protection and U.S. Green Building Council Leadership in Energy and Environmental Design Silver standards. The Ohio State Historic Preservation Office subsequently presented Wright-Patterson AFB with the Merit award for "outstanding contribution to historic preservation in Ohio"
- Promoting awareness of Native American culture to base personnel during Native American Heritage Month, with help from Cherokee Storyteller Lloyd Arneach.
- Collaborating with natural resources staff and the state of Ohio to preserve one of the few remaining natural prairies in the state. The controlled burn revitalized the cultural viewscape of Huffman Prairie Flying Field.
- Completing Section 106 coordination processes with the State Historic Preservation Office and satisfying all requirements for the Secretary of Interior's Standards for Treatment of Historic Properties.
- Consulting with the State Historic Preservation Office and the U.S. National Park Service to creatively mitigate adverse effects from the construction and operation of a mission essential Explosive Ordnance Disposal Proficiency Training Range adjacent to Huffman Prairie Flying Field National Historic Landmark.



Huffman Prairie Flying Field, a National Historic Landmark, at sunrise. This is the field where the Wright brothers perfected the first practical airplane, which took flight on October 5, 1905. The photo shows the replica catapult and flyer that are typically on display at the flying field during summer visitation hours at the Dayton Heritage National Historical Park.



Interior view of Building 20012's rotunda. This building is the most elaborate example of art deco design at Wright-Patterson AFB. The building underwent a whole facility rehabilitation for Base Realignment And Closure realignment and is a prime example of adaptive reuse of historic structures

CULTURAL RESOURCES MANAGEMENT, INDIVIDUAL/TEAM

Cultural Resources Management Team, Eglin Air Force Base, Florida



Eglin Air Force Base has a rich cultural heritage that includes 2,584 archaeological sites, 1,333 historic structures, and more than 250,000 artifacts ranging from archaic stone tools to remnants of the Cold War. The installation's Cultural Resources Management (CRM) team ensures that these unique cultural resources are adequately maintained and protected according to national preservation laws and regulations. They also consult with the State Historic Preservation Officer and rely on the installation's Integrated Cultural Resources Management Plan to achieve a wide range of goals such as facilitating successful Native American consultation, preserving National Register listed and eligible sites during Base Realignment and Closure Act (BRAC) activities, and identifying areas of cultural concern using a Cultural Resource Information Management System. Their efforts go beyond the level of compliance, and help sustain Air Force and military readiness for years to come.

Eglin Air Force Base CRM Team's accomplishments included:

- Identifying 299 archaeology sites, evaluating 59 sites for National Register eligibility, evaluating 106 buildings, and surveying 39,068 acres of Eglin's ranges.
- Surveying 1,466 acres and evaluating eight archaeological sites to determine and help mitigate the impact of a 10 mile highway and hurricane evacuation route that stretches across some of the base's ranges.
- Conducting Section 106 Data Recovery to preserve significant site information and clear over 35 acres for military testing and training. Successful coordination and consultation allowed the mission to proceed unrestricted. Amending the BRAC programmatic agreement to allow completion of additional F-35 Joint Strike Fighter runways eliminated 24 months from the project timeline.
- Developing the McKinley Climatic Lab preservation plan to safeguard historical features during routine repairs and maintenance.
- Reducing the Annual Reports to Congress preparation time by three weeks using the Cultural Resources Information Management System. This system integrates spatial and tabular data with electronic documents and images into a single geographic information system.



Local archaeologists excavate a prehistoric site on Eglin Air Force Base. The data recovery project is a mitigation effort to support the construction of a 10 mile road stretching across some of the base's ranges. The Mid-Bay Bridge Corridor will improve hurricane evacuation routes for Eglin personnel and local residents.



Eglin's CRM Team conducted 58 archaeological evaluations and surveyed 8,800 acres of land designated for the 7th Special Forces Group training range. CRM developed a way to protect valuable cultural resources, installing nearly 19,564 feet of fence and 7,000 resource markers designed to help soldiers avoid four National Register of Historic Places listed sites and other eligible resources within the special Army training areas. This innovative idea saved \$650,000 in potential data recovery expenses.

ENVIRONMENTAL QUALITY, INDUSTRIAL INSTALLATION

Defense Supply Center Richmond, Virginia



Designated as the aviation demand and supply management team within the Defense Logistics Agency (DLA), Defense Supply Center Richmond has been a consistent and dependable provider of nearly 1.3 million aviation repair parts and operating supply items to the armed forces since 1942. With over 600 acres and 6.7 million square feet in building space, the installation aims to provide critical material support across the U.S. Department of Defense and still achieve environmental excellence. In November 2005, Defense Supply Center Richmond's Environmental Management System (EMS) was externally registered for the requirements of the ISO 14001.

This EMS identifies strategies to implement sustainable practices throughout the installation, such as reducing energy consumption, recycling materials, and using alternative fuels for vehicles. The Center's team continually reviews aspects and impacts listed within this EMS in conjunction with the installation's EMS Environmental Policy Statement to identify future environmental goals. Additional efforts related to education outreach, wildlife habitat restoration, and green purchasing seek to prolong the availability of our nation's natural resources for future generations.

Defense Supply Center Richmond's accomplishments included:

- Acquiring new E85 compatible, hybrid, and Neighborhood Electric Vehicle units to Defense Supply Center Richmond's managed fleet. Staff will use these alternative vehicles for transportation to meetings on and off the installation, as well as to support utility work.
- Reducing use of gasoline on the installation by maintaining a 6,000 gallon E85 fuel supply tank. This tank is available to all compatible government vehicles as well as vehicles owned by Defense Supply Center Richmond's employees.
- Improving energy efficiency by replacing and recycling outdated mercury vapor lamps with high efficiency T5 fluorescent lamps in several large warehouses and street lamps. Defense Supply Center Richmond also installed motion sensors in these areas and replaced 300 and 400-watt metal halide lamps with high efficiency 151-watt Light Emitting Diode lights without decreasing street and parking lot lighting. The installation expects to see a return on cost within the next year.
- Purchasing Energy-Star qualified and Electronic Product Environmental Assessment Tool-registered products. The installation also implemented and provided contracting officials and contract requirements staff with formalized Green Procurement training.
- Conducting education and outreach in school classrooms covering water quality, soil science, and conservation, and offering an outdoor learning laboratory to share information regarding Defense Supply Center Richmond's natural resources conservation programs and wildlife habitat improvement projects.
- Restoring wildlife habitat to increase the biodiversity of the installation's freshwater pond and to reduce soil erosion.



Defense Supply Center Richmond decreased its environmental impact by purchasing additional alternative vehicles, lowering its consumption of natural resources for fuel, and reducing greenhouse gas emissions.



A Defense Supply Center Richmond employee enables students at Bellwood and Bensley Elementary school to become environmental stewards by teaching them simple energy saving actions such as recycling and turning off lights. The Center also increased awareness of different environmental careers during their visit.

ENVIRONMENTAL QUALITY, OVERSEAS INSTALLATION

U.S. Army Garrison Grafenwoehr, Germany



Each day, across 56,000 acres of bogs, meadows, forests, grasslands, and open features, 2,450 United States and NATO troops train on U.S. Army Garrison (USAG) Grafenwoehr in Germany. About 90% of Grafenwoehr's training area is a European Natura 2000 nature sanctuary; a status which makes conservation and protection of the natural resources found there paramount to maintaining military access. The garrison's goal is to provide quality base operations and community support for all United States personnel in Grafenwoehr, Hohenfels, and Garmisch. To mitigate impacts to the natural environment from training exercises and facility expansion on the garrison, the Environmental Management Division (EMD) promotes a wide range of energy efficiency, sustainability, and conservation efforts to support soldiers and families while increasing biodiversity in the region. A fully engaged and cross-functional environmental management system (EMS) and Environmental Quality Control Council evaluate more than 200 garrison activities annually, as well as their environmental aspects and impacts. The efforts of both the EMD and EMS support the military mission on an international level by providing the best environmental facilities and ecological infrastructure possible to sustain and preserve training lands for present and future generations.

U.S. Army Garrison's accomplishments included:

- Successfully meeting Environmental Management System goals, removing 546 pounds of ozone-depleting substances in 78 facilities, and virtually eliminating erosion on training lands.
- Implementing a new garrison-wide recycling system using pictograms and photos at the containers. The garrison also upgraded the hazardous material control center to a state of the art facility that created the potential for shelf-life extension and reuse of material, reducing both hazardous waste procurement and disposal.
- Saving \$490,000 through the German Forest Service's erosion control and environmental mitigation projects. This enabled additional conservation work on the land and increased flexibility for soldiers training in heavy-use areas. With no cost to the United States, the monetary value of the mitigation account increased to \$ 2.235 million that can be used for military construction projects.
- Developing a positive reputation among the Grafenwoehr military community through various outreach projects such as an Earth Day celebration, 12 article publications, and contributions to television reports on biodiversity and the white-tailed eagle.
- Creating a systematic review process through the garrison's EMD which covered all environmental pillars of the European environmental review, established annual quality checks that consider stakeholder comments, and created a Standard Operating Procedure (SOP). This SOP is now used as a template across European installations.
- Receiving the Edmond Blanc Prize of the International Council for Game and Wildlife Conservation for outstanding partnership with the German Forest Service to protect 1,272 plant and animal species, including the largest population of red deer within Germany.



Banding of a white-tailed eagle nestling at Grafenwoehr Training Area. This bird species is one of the rarest in the state of Bavaria. In 2009, only six nestlings fledged.



Children of the Grafenwoehr elementary school walk the newly constructed nature trail. "We learned about solitary bees, they work alone," said Santi Hurtado, a third grade student of Grafenwoehr Elementary School. "We saw a living bat—that was my favorite part," said MaKayla Anderson, also from the third grade at Grafenwoehr Elementary School.

ENVIRONMENTAL RESTORATION, INSTALLATION

Cape Canaveral Air Force Station, Florida



Cape Canaveral Air Force Station's (CCAFS) 15,800 acres of the Central Florida Coast have long served as a gateway to space for our country, and supported 16 launches during this year's award period alone. Although these events often bring economic prosperity and scientific discovery with them, historic space launch activities have left a disturbing legacy of significant environmental contamination around CCAFS. These effects often manifest themselves in the form of polluted groundwater and source area as well as widespread soil impacts.

To combat these impacts of space exploration, environmental restoration program (ERP) personnel in the 45th Space Wing (45SW) set and meet restoration goals to support the military mission, aerospace worker protection, and aggressive natural/cultural resource preservation. For example, 45SW identified and restored 127 sites across almost 2,500 acres. The ERP helped return 74% of the sites for unrestricted mission use and cleared 24% for safe industrial use with controls. These successes demonstrate CCAFS' award winning commitment to restoring the balance between space exploration and environmental stewardship.

WINNERS

THE 2011 SECRETARY OF DEFENSE ENVIRONMENTAL AWARDS

Cape Canaveral's accomplishments included:

- Developing partnerships with regulatory bodies, stakeholders, non-profits, and federal agencies to meet mutual restoration and preservation goals. The effects of these relationships helped streamline the assessment and cleanup of contaminated soil sites and protect the Wing's cultural assets for future generations.
- Planning and executing cleanup projects totaling \$23 million. More than 90% of the budget was performance-based, exceeding the 50% Air Force performance-based contract goal.
- Protecting against worker exposure on sites in accordance with the comprehensive Preliminary Assessment of 1,281 previously unassessed facilities, and eliminated 85% of the original facilities for no further action.
- During Fiscal Year 2009 through Fiscal Year 2010, overseeing \$23 million of investigation and cleanup using Army Corps of Engineers contracts. CCAFS worked with key stakeholders in the Restoration Partnering Team towards shared restoration objectives.
- Innovating and testing "green" technologies to enhance bioremediation and sequestration of dense non-aqueous phase liquid chlorinated solvents using emulsified vegetable oil and emulsified zero valent iron.
- Seeking opportunities for green remediation and sustainability by reducing carbon dioxide emissions, cost, and overall environmental footprints of projects. For example, CCAFS designed hydrologic treatment basins that control large ground-water contaminant plumes and lower carbon dioxide emissions, among other benefits.



Prior to initiating soil screening, tilling, and removal to address lead contamination at the historic Cape lighthouse, CCAFS carefully identified all historical features for preservation. Here, a member of the remediation team carefully uncovers a historic brick sidewalk. The project successfully concluded in summer 2010 and the non-profit "Lighthouse Foundation" was able to re-initiate tours and ensure future public access to the site.



The formal partnering relationship established among key stakeholders in 1995 is the foundation of the program's success. Delegated decision-making forged this successful cooperative relationship by giving ownership to working-level team members. The Restoration Partnering Team is a model for formal partnering and is consistently recognized as a leader in environmental cleanup and community outreach.

NATURAL RESOURCES CONSERVATION, LARGE INSTALLATION

Eglin Air Force Base, Florida



With over 464,000 acres of land and 130,000 square miles of water ranges, Eglin Air Force Base (AFB) provides refuge for a wide range of natural communities and 106 rare and endangered plant and animal species. It is also a center of development, testing, and deployment of lethal air power to support essential Department of Defense missions through the Air Armament Center. Natural resources managers at Eglin AFB in the 96th Civil Engineer Group, Jackson Guard (JG), strike a careful balance between stewardship and mission support through a unique web-based Integrated Natural Resources Management Plan (INRMP). This INRMP is continually updated with new data models and regulatory input, facilitating an adaptive management tool that saves time and resources and benefits managers and stakeholders alike. It also ensures the protection of natural resources by integrating an aggressive prescribed fire program and an innovative forestry program to support wildlife management objectives. Since revising the INRMP in 2009, Eglin has completed an impressive 84 of its 120 five-year goals and objectives.

Eglin AFB's accomplishments included:

- Hosting Prescribed Fire Combustion-Atmospheric Dynamics Research Experiments, the only collaborative prescribed burn effort in the United States where wild land fire professionals can bring new technologies and practices to a controlled environment and share the results immediately.
- Earning recognition by the United States Fish and Wildlife Service (USFWS) as the first property under single ownership to achieve the assigned recovery goal for the endangered red-cockaded woodpecker (RCW). Eglin AFB helped increase active RCW nesting clusters from 390 to 429 in 2010, and breeding pairs from 347 to 392 in two seasons.
- Achieving "National Recovery Champion" status under the USFWS for meeting key milestones in the Okaloosa Darter Recovery Plan. Eglin AFB boosted the threatened fish population to more than 900,000 from a low of approximately 1,500 by implementing a successful erosion control program.
- Completing 21 wildlife habitat restoration projects in 2010 and improving more than 18,000 acres for 85 federal and state listed threatened and endangered species.
- Receiving acknowledgement by the State of Florida as the official "beach cleanup test site" after a major oil spill event. Due to Eglin AFB's ability to control access to their beaches, the base tested and evaluated equipment and methodology to clean oil from the shorelines. Biologists from Eglin AFB also helped rescue more than 2,200 sea turtle eggs from lethal exposure to oil that washed up on the beaches. They later transported them to Cape Canaveral for hatching and release.
- Averting Critical Habitat designation by the USFWS for the federally endangered reticulated flatwoods salamander. Eglin AFB updated its living INRMP to include new habitat management and population data to support the recovery of this species. The base is home to the largest remaining population of the species, and JG is making efforts to increase fire return intervals and restore breeding ponds to high quality habitat.



Bill Tate, a USFWS employee holds an endangered Okaloosa Darter during a sampling session. The USFWS christened JG a "National Recovery Champion" for their successful efforts to boost the darter populations.



JG's team of wildland firefighters led the nation with 112,600 prescribed fire acres in fiscal year 2009, resulting in a combined 217,000 acres burned over the last two fiscal years.

SUSTAINABILITY, NON-INDUSTRIAL INSTALLATION

Joint Base Lewis-McChord, Washington



Joint Base Lewis-McChord's (JBLM) 86,000 acres comprise the only power projection platform in the Pacific Rim and are home to 1 Corps and the 62nd Airlift Wing. Renowned for its world-class Military Operation on Urban Terrain site and battle simulation centers, JBLM is also making its mark among the Military Services by demonstrating that sustainability is a mission enabler. In 2002, Fort Lewis held a sustainability workshop and made a commitment to stakeholders to become more sustainable in the coming years. Since that time, the joint base's Installation Sustainability Program (ISP) and Installation Sustainability Board have provided a venue for active sustainability planning and decision-making on JBLM: their efforts range from green procurement, to waste diversion, to land conservation. The ISP consists of six cross-functional sustainability teams that collaborate with Environmental Management System (EMS) teams as well as senior leadership to meet ISO 14001 standards. The ISP also works toward eight sustainability goals which guide both short and long-term projects on the base that will contribute to a more sustainable, livable, and mission-capable installation in the coming years.

Joint Base Lewis-McChord's accomplishments included:

- Incorporating green procurement requirements into the base's design standards, contract, and Government Purchase Card training, and partnering with contracted design teams to ensure the supply of green furnishings and fixtures.
- Achieving an 87% diversion rate for waste (as reported in the 2010 Solid Waste Annual Report). This is the result of a comprehensive recycling program consisting of composting, event recycling, illegal dumping investigation, and comingled recycling.
- Creating a Sustainable Community Team and a JBLM Sustainable Master Plan to reduce land and natural resources consumption and create a sustainable community. The development's design encompasses a wide range of sustainability goals such as Leadership in Energy and Environmental Design certified construction, mixed-use facilities, and walkable neighborhoods.
- Encouraged alternative fuel use on base by providing a variety of alternatively-fueled vehicles, supporting research to hydrogen fuel-cells, and constructing an alternative fuel station.
- Enhancing training lands through various activities such as planting native species, supporting the Army Compatible Use Buffer program, and conducting ecological burns to prevent the occurrence of listed species and restricted training areas on base lands.
- Expanding wildlife habitat and reducing storm water runoff into Puget Sound through a centralized storm water filtration system in the community.



The largest intact native prairie in Washington is located on JBLM. JBLM staff partnered with The Nature Conservancy to conduct ecological burns designed to reduce flammable fuels, emulate natural disturbances, limit encroachment by exotic plants, and maintain this desirable ecosystem. More than 1800 acres were burned in 2009. Photo credit: Ingrid Barrentine



In an ongoing effort to recover native Puget Sound wetland species, some 600 endangered Oregon spotted frogs raised at Woodland Park Zoo were released into the wild after spending the first nine months of their lives in a captive-rearing program. Biologists from the Washington Department of Fish and Wildlife (WDFW), Woodland Park Zoo, Oregon Zoo, and the U.S. Army released the frogs this fall into Dailman Lake on the Fort Lewis Military Reservation in Pierce County. This is part of a collaborative effort to return the endangered frog to a portion of its historic habitat. Photo credit: Miriam Easley

SUSTAINABILITY, INDIVIDUAL/TEAM

The Exchange Corporate Sustainability Program, Army and Air Force Exchange Service, Texas



The Exchange Corporate Sustainability Program, Army and Air Force Exchange Service is a joint military command with a dual mission: to provide quality merchandise and services to 12.2 million authorized customers worldwide at competitively low prices, and to generate earnings which provide a dividend to support military morale, welfare, and recreation (MWR) programs. With over 3,100 facilities worldwide, the Exchange recognizes the importance of incorporating sustainability actions and goals into their normal business practices. They seek to build a culture of loyalty, ownership, sustainability, and continuous improvement by reducing energy operation costs and carbon footprint levels and marketing energy-efficient products. Their triple bottom line identifies “People-Planet-Benefit”, and places an emphasis on funding MWR efforts. In 2009, the Exchange generated \$261.6 million in support of this goal.

The Exchange Corporate Sustainability Program's accomplishments included:

- Upgrading a customized Web-based Army and Air Forces Exchange Service Utility Tracking System to measure utility consumption and cost for the Base Exchange buildings. This allows the Exchange to better target facilities for energy saving opportunities and projects.
- Conducting numerous pilot projects to test new technologies. As a result of one successful pilot, the Exchange replaced high intensity discharge bulbs with light emitting diode technology on gas canopies at Army installations. These new lights reduce energy use, improve marketing and security, and reduce night sky pollution.
- Committing to purchase new energy efficient equipment that meet Exchange needs, such as Energy Star qualified food steamers that recycle water.
- Implementing a corporate-wide “Trash-4-Cash” recycling program to encourage recycling at 152 Army Exchange facilities and reduce landfill waste.
- Requiring all new construction projects to meet Leadership in Energy and Environmental Design Silver standards. In 2009, the Exchange registered a total of 34 projects with the U.S. Green Building Council.
- Installing an Oil Purification System on 264 tractors to reduce the number of annual oil changes and committing to reduce the use of petroleum-based products through eco-friendly fuel for the Exchange's private truck fleet.



In new construction projects, the Exchange used the most energy efficient and water efficient equipment available for the food court facilities. Fort Bliss used native landscaping, which needs less irrigation and reduces potable water use by 50%. They also installed a drainage system at the Fort Bliss Exchange which diverts water to a retention pond. The water is filtered before its released into the watershed.



The Exchange is focused on reduction of fossil fuel dependency. It currently uses bio diesel to support its logistics fleet at 44 United States military installations. In 2009, The Exchange increased bio-diesel fuel consumption by 11.5% and increased fossil fuel efficiency by 2.2% compared to 2008.

ENVIRONMENTAL EXCELLENCE IN WEAPONS SYSTEMS ACQUISITION, SMALL PROGRAM

Sustainable Painting Operations for the Total Army, Aberdeen Proving Ground, Maryland



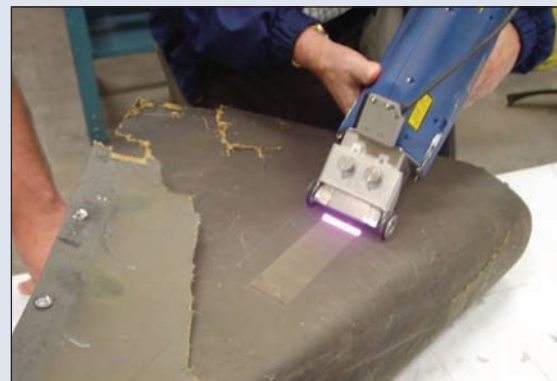
The goal of the Sustainable Painting Operations for the Total Army (SPOTA) Program is to ensure that the Army mission, whether on a military installation or a commercial site, is fulfilled under all applicable current, proposed, and foreseeable surface coating environmental regulations. SPOTA recognizes that sustainable painting operations are an essential part of maintaining combat fleet readiness; they enhance system and soldier survivability through reduced signatures and chemical agent resistance. The program's five thrust areas aim to develop, demonstrate, and implement surface coating materials that are inherently compliant with the U.S. Environmental Protection Agency's standards, and eliminate organic hazardous air pollutants (HAPs) affiliated with paints, solvents, sealants, adhesives, depainting, and rubber-to-metal bonding. To achieve this mission, SPOTA adopted an evolutionary acquisition approach by which alternative materials were spun out to the field as soon as they were approved for use. The program's overall impact is anticipated to eliminate more than 4,000 tons of pollutant emissions from Army surface coating operations, and result in roughly \$1 billion of cost savings.

SPOTA's accomplishments included:

- Fostering a sustainability ethic within the Army, going beyond compliance and anticipated future challenges by spinning out technologies with low or no hazardous emissions into Army surface coating operations.
- Minimizing total ownership costs of Army materiel and facilities, not only by reducing emissions and the notices of violation associated with non-compliance, but also by eliminating maintenance, recordkeeping, and reporting costs affiliated with pollution control devices. These successes ultimately simplify the compliance burden on installations.
- Strengthening Army operational capabilities by reducing the environmental footprint associated with hazardous waste from existing coatings and pollution control filters.
- Enabling the Army to transition to organic HAP-free paint removers to replace methylene chloride-based products in numerous applications.
- Implementing the requirement for MIL-DTL-64159 Chemical Agent Resistant Coating (CARC) topcoats to be free of all metal HAPs other than Cobalt and trivalent chromium compounds which are required for infrared camouflage protection.
- Developing and demonstrating Cobalt-free pigments with enhanced weathering properties for use in MIL-DTL-64159 and MIL-DTL-53039 CARC topcoats. This technology, entitled Development and Application of Low Solar Absorbing CARC, is scheduled to be implemented in Fiscal Year 2011 and was honored with the 2009 Army Research and Development Achievement Award.



A principal investigator at Army Research Laboratory formulating the next generation CARC materials for improved performance and environmental sustainability.



A hand held laser is being used to remove topcoat from a helicopter component at Fort Rucker.

HONORABLE MENTIONS

Cultural Resources Management, Installation

Fort Bliss Military Installation, Texas
Naval Air Station Fallon, Nevada
Marine Corps Base Camp Pendleton, California
Defense Supply Center Richmond, Virginia

Cultural Resources Management, Individual/Team

Chantal McKenzie, Texas Army National Guard, Texas

Environmental Quality, Industrial Installation

Tobyhanna Army Depot, Pennsylvania
Marine Corps Air Station Cherry Point, North Carolina
Robins Air Force Base, Georgia
Naval Submarine Base Kings Bay, Georgia

Environmental Quality, Overseas Installation

Kadena Air Base, Okinawa, Japan
US Naval Support Activity Bahrain, Kingdom of Bahrain
Marine Corps Base Camp Smedley D. Butler, Japan

Environmental Restoration, Installation

Manning Point (Jago River) Formerly Used Defense Site, Alaska
Defense Supply Center Richmond, Virginia
Naval Station Norfolk and Naval Support Activity Norfolk, Virginia
Marine Corps Base Camp Lejeune, North Carolina

Natural Resources Conservation, Large Installation

Fort Drum Military Installation, New York
Naval Base Ventura County, California
Marine Corps Base Camp Lejeune, North Carolina

Sustainability, Non-Industrial Installation

10th Air Base Wing, US Air Force Academy, Colorado
Naval Station Great Lakes, Illinois
Marine Corps Air Ground Combat Center Twentynine Palms, California

Sustainability, Individual/Team

1st Special Operations, Civil Engineer Squadron, Hurlburt Field, Florida
Defense Logistics Agency, Logistics Operations, Supply Chain Sustainability and Hazardous Material Minimization Team, Fort Belvoir, Virginia
Program Manager Air 231 Environment, Safety, and Occupational Health Team, Naval Air Systems Command, Maryland
Marine Corps Air Ground Combat Center Twentynine Palms, California

Environmental Excellence in Weapons Systems Acquisition, Small Program

Battle Force Tactical Trainer In-Service Engineering Agent Design Team, Virginia
F/A-18E/F & EA-18G Program Office, Program Manager Air 265, Green Hornet Team, Naval Air Station Patuxent River, Maryland

JUDGES

Volunteers from private industries, state and federal agencies, non-governmental organizations, and military retirees served as judges for the 2011 Secretary of Defense Environmental Awards.

Ms. Nikki Buffa

Associate Director
Communities, Environmental Protection and Green Jobs,
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Dr. Robin Burgess

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PAST WINNERS

Cultural Resources Management

- 2010 Camp Guernsey, Wyoming Army National Guard
- 2009 Vandenberg Air Force Base, California
- 2009 Fort Drum Cultural Resources Team, Fort Drum, New York
- 2008 Redstone Arsenal, Alabama
- 2007 Mr. Gary M. O'Donnell, Hickam Air Force Base, Hawaii
- 2007 Fort Drum, New York
- 2006 Naval Air Weapons Station China Lake, California
- 2005 Marine Corps Recruit Depot Parris Island, South Carolina and 15th Airlift Wing, Hickam Air Force Base, Hawaii (tie)
- 2004 Marine Air Ground Task Force Training Command, Twentynine Palms, California
- 2003 Texas Army National Guard Cultural Resources Management Office, Texas
- 2002 Commander Navy Region Mid-Atlantic, Hampton Roads, Virginia
- 2001 U.S. Army Air Defense Artillery Center and Fort Bliss, Texas
- 2000 Fort Riley, Kansas
- 1999 Vandenberg Air Force Base, California
- 1998 Fort Hood, Texas
- 1996 Fort Carson and Pinon Canyon Maneuver Site, Colorado

Environmental Quality

- 2010 Marine Corps Base Hawaii
- 2010 Mr. Awni M. Almasri, Naval Facilities Engineering Command Europe Africa Southwest Asia
- 2009 Environmental Management Division, Hill Air Force Base, Utah
- 2009 United States Army Garrison Bamberg, Germany
- 2008 Naval Air Engineering Station Lakehurst, New Jersey
- 2008 Hill Air Force Base, Utah
- 2007 Tinker Air Force Base, Oklahoma
- 2007 Marine Corps Base Camp Smedley D. Butler, Japan
- 2006 Team Dyess, Dyess Air Force Base, Texas
- 2006 Fort Campbell, Kentucky
- 2005 Naval Air Depot Cherry Point, North Carolina
- 2005 Misawa Air Base, Japan
- 2004 U.S. Naval Support Activity Bahrain

- 2003 Tinker Air Force Base, Oklahoma
- 2003 Marine Corps Base Camp Smedley D. Butler, Okinawa, Japan
- 2002 Air Armament Center, Eglin Air Force Base, Florida
- 2001 Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility, Hawaii
- 2001 Marine Corps Base Camp Butler, Okinawa, Japan
- 2000 Patrick Air Force Base, Florida
- 2000 Marine Corps Base Hawaii
- 1999 Indian Head Division, Naval Surface Warfare Center, Maryland
- 1999 Luke Air Force Base, Arizona
- 1998 Naval Aviation Depot North Island, California
- 1998 Fort Sill, Oklahoma
- 1997 Naval Surface Warfare Center, Indian Head, Maryland
- 1997 Luke Air Force Base, Arizona
- 1996 Eglin Air Force Base, Florida
- 1996 USAF Hurlburt Field, Florida
- 1995 Robins Air Force Base, Georgia
- 1994 Fort Campbell, Kentucky
- 1993 Hill Air Force Base, Utah
- 1992 Naval Air Station Patuxent River, Maryland
- 1991 Tinker Air Force Base, Oklahoma
- 1990 McChord Air Force Base, Washington
- 1989 Tooele Army Depot, Utah
- 1989 Vandenberg Air Force Base, California
- 1987 Pine Bluff Arsenal, Arkansas
- 1986 Fort Lewis, Washington
- 1985 Marine Corps Air Station Kaneohe Bay, Hawaii
- 1984 Luke Air Force Base, Arizona
- 1983 Fort McClellan, Alabama
- 1982 Hill Air Force Base, Utah
- 1981 Marine Corps Base Camp Lejeune, North Carolina
- 1980 McClellan Air Force Base, California
- 1979 Fort Sill, Oklahoma
- 1978 Marine Corps Base Camp Pendleton, California
- 1977 Marine Corps Air Station Kaneohe Bay, Hawaii
- 1976 Naval Air Training Center Patuxent River, Maryland
- 1975 Eglin Air Force Base, Florida
- 1974 Fort Sill, Oklahoma

PAST WINNERS (Continued)

Environmental Restoration

- 2010 Hill Air Force Base, Utah
- 2010 Ms. Regina Dixon Butler, Patrick Air Force Base, Florida
- 2009 Defense Depot, Memphis Tennessee
- 2008 Seymour Johnson Air Force Base, North Carolina
- 2008 Marine Corps Air Station Cherry Point Partnering Team, North Carolina
- 2007 Dover Air Force Base, Delaware
- 2006 Fort Lewis, Washington
- 2006 Pyramid Lake Torpedo and Bombing Range Remediation Project U.S. Army Corps of Engineers, Sacramento District
- 2005 Naval Facilities Engineering Command Pacific, Hawaii, and Keesler Air Force Base, Mississippi (tie)
- 2004 Tinker Air Force Base,
- 2003 Hill Air Force Base, Utah
- 2002 F.E. Warren Air Force Base, Wyoming
- 2001 Offutt Air Force Base, Nebraska
- 2000 Elmendorf Air Force Base, Alaska
- 1999 Naval Air Engineering Station Lakehurst, New Jersey
- 1998 Riverbank Army Ammunition Plant, California
- 1997 Naval Air Station North Island, San Diego, California
- 1996 Naval Air Station Cecil Field, Florida
- 1995 Naval Air Station Whidbey Island, Washington
- 2002 U.S. Army Transportation Center, Fort Eustis & Fort Story, Virginia
- 2001 Naval Weapons Station Charleston, South Carolina
- 2000 U.S. Army Training Center & Fort Jackson, South Carolina
- 2000 Hawaii Army National Guard
- 1999 Camp Ripley, Army National Guard, Minnesota
- 1999 U.S. Army Garrison, Fort Belvoir, Virginia
- 1998 Fort Stewart/Hunter Army Airfield, Georgia
- 1998 Naval Submarine Base Kings Bay, Georgia
- 1997 Marine Corps Base Camp Pendleton, California
- 1997 Naval Surface Warfare Center, Indian Head, Maryland
- 1996 Tyndall Air Force Base, Florida
- 1996 Marine Corps Base Hawaii
- 1995 Naval Air Warfare Center, Patuxent River, Maryland
- 1994 Eglin Air Force Base, Florida
- 1993 Twin Cities Army Ammunition Plant, Minnesota
- 1992 Marine Corps Base Camp Lejeune, North Carolina
- 1991 Fort Belvoir, Virginia
- 1990 Fort Sill, Oklahoma
- 1989 F.E. Warren Air Force Base, Wyoming
- 1988 Goldwater Air Force Range, Arizona
- 1987 New Boston Air Force Station, New York
- 1986 Beale Air Force Base, California
- 1985 Robins Air Force Base, Georgia
- 1984 Fort Huachuca, Arizona
- 1983 Indian Island Annex, Keyport, Naval Engineering Station, Washington
- 1982 Fort McCoy, Wisconsin
- 1981 Tobyhanna Army Depot, Pennsylvania
- 1980 Fort Huachuca, Arizona
- 1979 Naval Air Station Chase Field, Texas
- 1978 Fort Sill, Oklahoma
- 1977 Griffiss Air Force Base, New York
- 1976 Marine Corps Base Camp Lejeune, North Carolina
- 1975 Barksdale Air Force Base, Louisiana
- 1974 Fort Campbell, Kentucky
- 1973 Marine Corps Base Camp Lejeune, North Carolina
- 1972 Marine Corps Base Camp Pendleton, California
- 1971 Tyndall Air Force Base, Florida
- 1970 Camp Pickett, Virginia

Natural Resources Conservation

- 2010 Fort Custer Training Center, Michigan Army National Guard
- 2010 Mr. Stephen M. Seiber, Eglin Air Force Base, Florida
- 2009 Camp Ripley Maneuver and Training Center, Minnesota
- 2008 Naval Weapons Station, Seal Beach, California
- 2008 Fort Indiantown Gap Training Center, Pennsylvania Army National Guard
- 2007 Arnold Air Force Base, Tennessee
- 2006 Minnesota Army National Guard Natural Resources Conservation Team, Camp Ripley
- 2006 Marine Corps Base Hawaii
- 2005 Fort Drum, New York
- 2004 Columbus Air Force Base, Mississippi
- 2003 U.S. Army Intelligence Center and Fort Huachuca, Arizona

Natural Resources Conservation (Continued)

- 1969 Marine Corps Base Camp Lejeune, North Carolina
- 1968 Red River Army Depot, Texas
- 1967 Fort Rucker, Alabama
- 1966 Naval Weapons Station Yorktown, Virginia
- 1965 Tyndall Air Force Base, Florida
- 1964 Eglin Air Force Base, Florida
- 1963 Fort Knox, Kentucky

Sustainability (formerly Pollution Prevention)

- 2010 Fleet Readiness Center Southwest, California
- 2009 Naval Air Station Whidbey Island, Washington
- 2009 14th Civil Engineer Squadron Pollution Prevention Team, Columbus Air Force Base, Mississippi
- 2008 Robins Air Force Base, Georgia
- 2007 Marine Corps Base, Hawaii
- 2007 Pollution Prevention Afloat Team Naval Sea Systems Command, Washington, DC
- 2006 Tinker Air Force Base, Oklahoma
- 2005 Commander, Navy Region Mid-Atlantic, Norfolk, Virginia
- 2004 Robins Air Force Base, Georgia
- 2003 Naval Air Station, Whidbey Island, Washington
- 2002 Warner Robins Air Logistics Center, Robins Air Force Base, Georgia
- 2001 U.S. Army Transportation Center and Fort Eustis, Virginia
- 2000 Radford Army Ammunition Plant, Virginia
- 2000 HQ III Corps and Fort Hood, Texas
- 1999 Robins Air Force Base, Georgia
- 1999 Marine Corps Base Hawaii
- 1998 Robins Air Force Base, Georgia
- 1998 Fort Carson and Pinon Canyon Maneuver Site, Colorado
- 1997 Corpus Christi Army Depot, Texas
- 1997 Fort Lewis, Washington
- 1996 Robins Air Force Base, Georgia
- 1996 Dyess Air Force Base, Texas
- 1995 Kelly Air Force Base, Texas
- 1995 Naval Construction Battalion Center, Port Hueneme, California
- 1994 Tinker Air Force Base, Oklahoma
- 1993 Navy Aviation Depot, Florida

Environmental Excellence in Weapon System Acquisition

- 2010 Aeronautical Systems Center Environmental and Occupational Health Team, Wright-Patterson Air Force Base, Ohio
- 2008 Fairchild Air Base, Washington
- 2006 C-17 Pollution Prevention Integrated Product Team, Wright-Patterson Air Force Base, Ohio

Special Recognition Environmental Management Systems Implementation

- 2006 Defense Logistics Agency Environmental Management Systems Team



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