

The 2012 Secretary of Defense ENVRONMENTAL AWARDS 50th ANNIVERSARY



The military has a long and proud record when it comes to helping protect and preserve our nation's natural resources.

Just last month, Secretary Panetta spoke to the importance of the natural environment to the Department's ability to carry out its mission. He said, "In the 21st Century, the reality is that there are environmental threats which constitute threats to our national security. For example, the area of climate change has a dramatic impact on national security: rising sea levels, to severe droughts, to the melting of the polar caps, to more frequent and devastating natural disasters all raise demand for humanitarian assistance and disaster relief."

The Secretary also stressed that, "As one of the largest landowners and energy consumers in the world, our drive is to be more efficient and environmentally sustainable. We have to have the potential to transform the nation's approach to the challenges we are facing in the environment and energy security."

In 1962, the Department established the annual Secretary of Defense Environmental Awards to honor those Military Service men and women whose accomplishments demonstrate ways to protect our environment while proudly serving our country. Today marks the 50th anniversary of the awards, a historic occasion showcasing five decades of environmental excellence within the Department. These awards highlight achievement in the areas of cultural resources management, environmental quality, environmental restoration, natural resources conservation, sustainability, and environmental excellence in weapon systems acquisition.

We celebrate these men and women for their commitment to maintain and restore the rich natural treasures we hold for future generations. All of the nominees strive to promote innovative environmental practices and partnerships that reduce the DoD operating costs without compromising mission success. Their efforts are a testament to the DoD environmental leadership role, both at home and overseas.

I congratulate the nominees for their exceptional good works. I am humbled by each of their efforts and thank them for their service. It is my privilege to honor the 2012 winners of the Secretary of Defense Environmental Awards.

Frank Kendall 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 of Defense (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 those valuable resources that are critical to mission success.

Environmental Excellence in Weapon System 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.

Sustainability

INDUSTRIAL INSTALLATION



Scranton Army Ammunition Plant, Pennsylvania

Scranton Army Ammunition Plant (SCAAP) is the Army's premier manufacturing center for large caliber steel projectiles involving artillery, mortar, and projectile metal parts. The installation is committed to meeting mission requirements while promoting environmental sustainability, and aims to preserve and protect the natural and built environment in which it resides. SCAAP works with the installation's existing infrastructure to incorporate low-impact development (storm water runoff) consistent with established standards for historic buildings. SCAAP also develops innovative green technologies to include in its sustainability plan. In 2010, SCAAP became the first Department of Defense (DoD) installation to commit to the Department of Energy's Save Energy Now LEADER program, and pledged to reduce energy intensity by twenty-five percent over a ten-year time span. During FY2011, SCAAP initiated multiple energy efficiency projects and introduced key technologies and best practices to reduce and reuse water, improve air emissions in its production facility, and analyze research and development concepts to reduce hazardous materials in production. SCAAP participates in several Chesapeake Bay initiatives, maintains an active recycling program, and continues to promote green procurement in the installation's acquisition process.

Scranton Army Ammunition Plant's accomplishments include:

- Employed a rainwater collection system which utilizes approximately 2.2 acres of roof space on the facility. This system enables the capture and reuse of more than 2.5 million gallons of rainwater per year.
- Established an objective to reduce the volume of volatile organic compounds stemming from the coating of large caliber ammunition casings operations. As part of a pollution prevention program, SCAAP initiated an effort to identify technology controls and improved efficiency in the coating process, reduced material waste, and improved overall indoor air quality.
- Led a research and development effort to reduce zincphosphate in the production process. SCAAP is currently in the process of evaluating alternative replacement chemicals for the alkaline bath and zinc-phosphate treatment. If successful, SCAAP will be able to eliminate zinc-phosphate from the process entirely.
- Initiated several efforts to promote conservation and efficiency across installations, including modernizing the Erie 1 Rotary Hearth Furnace to yield a 25 percent reduction in natural gas consumption per annum and achieve greenhouse gas reduction goals, reducing the energy consumption of the Erie Forge Press Line, and replacing the Keeler Boiler to reduce natural gas consumption and reduce emissions by 30 percent.
- Participated in a pilot study to determine the potential impacts of total maximum daily load (TMDL) regulations on Army facilities within the Chesapeake Bay watershed. These findings will provide valuable lessons learned to the DoD and the U.S. Environmental Protection Agency for TMDL development.



The Production Shop covers approximately 4.5 acres. Rain water is collected from approximately 2.2 acres of this roof. On average, the system collects and stores more than 2.5 million gallons of rainwater each year as cooling water for the plant's production operations.



The Production Shop cooling towers provide water to cool equipment and maintain acceptable operating temperatures within SCAAP's production shop. In the past two years, rain water has provided all but 70,000 gallons of water required by the cooling system.

Environmental Quality NON-INDUSTRIAL INSTALLATION



Fort Hood, Texas

Fort Hood is the home of III Corps Headquarters, 1st Cavalry Division, 1st Army Division West, 13th Sustainment Command (Expeditionary), 3rd Armored Cavalry Regiment, and several separate brigades along with a host of brigade and battalion-sized tenant units and organizations. The installation is comprised of 340 square miles of land, and supports more than 395,000 soldiers, family members, retirees, and Department of Defense civilians. The Directorate of Public Works Environmental Division executes this sprawling installation's environmental program, and environmental staff primarily focus their efforts on air quality, energy management, pollution prevention, recycling, and water quality. Fort Hood upholds a strong commitment to maintaining combat readiness through high standards for soldier training and support while increasing environmental stewardship and awareness of the installation's environmental policy, programs, and services. Fort Hood strives to enhance its mission readiness and environmental excellence by working with external and internal committees and boards, and has a strong relationship with its neighbors. On an installation that supports hundreds of thousands of people, Fort Hood demonstrates that strong teamwork is necessary to achieve a greener and more sustainable future.

Fort Hood's accomplishments include:

- Saved approximately 1,944 soldier man hours and prevented the release of 4,485,000 gallons of water into the sanitary sewer through the purge facility.
- Collected 207,291 gallons of JP-8 fuel and 231,132 gallons of used oil from the JP-8/oil/antifreeze recycle center and generated \$302,598, which avoided disposal costs while recycling valuable resources.
- Implemented a utility management control system that employed an open communications system and generated over \$1.06 million in annual energy cost savings.
- Sold 17,521 tons of recyclable material that generated approximately \$4.12 million with Defense Reutilization and Marketing Service sales assistance.
- Conducted 359 formal assessments, 239 courtesy assessments, 152 environmental briefs, 1,159 assistance visits, and 109 facility closeouts for all units and organizations on Fort Hood through the Environmental Compliance Assessment Team (ECAT). ECAT also provided environmental training to 4,835 soldiers, civilians, and contractors.
- Reached out to more than 30,000 people and 2,600 students at the Army's largest Earth Day event- Fort Hood Earth Fest.



Each year in April, Fort Hood hosts an Earth Day event to increase awareness about environmental stewardship among all family members, soldiers, civilians, and leaders of the installation's many divisions and directorates.



Successful pollution prevention projects are collocated in an area of the installation called the Environmental Corner. The projects include a tanker purge facility, mobile kitchen trailer/compact kitchen wash bay, JP-8/oil/antifreeze recycle center, and water pretreatment system.

Natural Resources Conservation

INDIVIDUAL/TEAM



U.S. Army Garrison-Hawaii, Oahu Army Natural Resource Team

The U.S. Army Garrison-Hawaii, Oahu Army Natural Resource Team (NRT) is responsible for balancing the military mission with stewarding 88 federally listed species on over 50,000 acres of land. The NRT supports six Army training ranges on Oahu through strict natural resources management, enabling 20,000 Army, Navy, Air Force, Marine Corps, National Guard, and Reserves personnel as well as local police to successfully conduct mission critical training. During 2010 and 2011, Department of Defense natural resources requirements did not present any major impediments to projects or training events on the garrison. This is a significant feat considering the extremely high operational tempo for training military units deploying to Iraq and Afghanistan. The NRT collaborated with numerous partners including conservation organizations, state and Federal agencies, non-governmental organizations, and private landowners to achieve this goal, and has helped institutionalize the Army's triple bottom line of Mission, Environment, and Community through outreach and training initiatives. The NRT is truly committed to enabling the military mission through natural resources compliance and management, and is a notable environmental leader on both local and national levels.

U.S. Army Garrison-Hawaii, Oahu Army Natural Resource Team accomplishments include:

- Precluded critical habitat designation on Army lands for 23 new listed species.
- Outplanted 8,500 individual endangered plants from 24 species into 114 locations.
- Collected 5,800 endangered plants for genetic storage.
- Controlled invasive plant species on 500 acres of remote mountain wilderness.
- Fenced 1,256 acres of endangered species habitat.
- Banded 60 endangered Elepaio birds, which comprise 16 percent of the Elepaio population on the island of Oahu.
- Provided training for the Aviation Brigade, saving the program over \$75,000.
- Developed a one-of-a-kind database that tracks 11,000 natural resource actions.
- Saved two plant species from extinction, including the *Cyanea superba*.
- Garnered public support for the Army by participating in a total of 40 events that reached more than 7,000 members of the public, organizing over 100 service trips that leveraged 11,000 volunteers hours, publishing 27 newspaper articles and a quarterly bulletin, and appearing in numerous television pieces.
- Educated 600 soldiers and Army staff through the Environmental Compliance Officers course.



This endemic palm tree, Pritchardia kaalae, is limited to a single valley on the island of Oahu. Thanks to the Oahu NRT's efforts to decrease rat predation, this palm tree has a better chance at long-term survival. The team's management efforts have led to an increase in the number of palms from 165 to over 1,100.



Matt Keir, Rare Plant Specialist, repels down a cliff face to collect seeds from an endangered plant. Desperate measures are often required to save Hawaii's rarest species. Without the Army's conservation efforts, these plants would likely become extinct.

Environmental Quality



Fort Hood Recycle Team, Texas

Fort Hood is home to the largest and most successful Qualified Recycle Program in the Army. The Recycle Team is dedicated to supporting this Program as well as its goals to reduce the amount of material sent to landfills, divert 50 percent of non-hazardous solid waste by the year 2015, generate funds through the sale of materials, and support environmental stewardship on and off of Fort Hood. The Team focuses on five pillars— outreach, collection, processing, sales, and scale operations— and sets relevant annual goals and objectives to enable Fort Hood's recycling mission. In FY2010 and FY2011, Fort Hood's Recycle Team established an efficient, cost effective, and self-sustaining program that enhances the surrounding environment, promotes litter prevention, and increases recyclable material sales to the benefit of the installation. Their proactive efforts demonstrate both the Team's determination to find solutions to Fort Hood's environmental challenges, as well as their commitment to establishing and meeting Program goals. The Team also emphasizes personal sustainability, and encourages the Fort Hood community to work together to ensure that this installation continues to be a leader in environmental stewardship.

Fort Hood Recycle Team's accomplishments include:

- Sold 17,521 tons of recyclable material, including cardboard, white paper, office pack, mixed paper, newspaper, maps, plastic, pallets, toner cartridges, cooking oil, aluminum, brass, and scrap metal.
- Provided Fort Hood military units with more than 5,000 35-gallon recycle containers, desk side containers, and wire containers at no cost, which in turn saved Fort Hood approximately \$150,000.
- Supported activities such as Freedom Fest fireworks, Welcome Home celebrations, carnivals, and the annual Earth Fest, and provided \$428,000 for pollution prevention projects and \$164,000 for Military Morale, Welfare, and Recreation events.
- Established the Commanding General's Recycle Challenge and recognized units for their exemplary recycle performance for each quarter with monetary awards of \$1,500 for first place, \$1,000 for second place, and \$500 for third place each quarter. This challenge ultimately resulted in a total collection of 172,987 pounds of recyclable material.
- Founded the Cardboard Recycle Buyback Program that paid each company-sized unit 10 percent of the average market price at the end of each quarter. The Program collected 43,406 pounds of cardboard.
- Participated in the Cen-Tex Sustainable Communities Partnership, which is an initiative that involves Fort Hood, Killeen, Copperas Cove, Harker Heights, and Gatesville planning goals that have long-term environmental, economic, and social benefits for the region. This partnership resulted in a regional recycling feasibility study.



Through education and outreach, the Fort Hood Recycle Center increases the amount of recycled materials on the installation. When the Recycle Program first started in 1992, Fort Hood sold 600 tons of recyclable material. During FY2010 and FY2011, the recycle center sold 17,521 tons of recyclable material.



The Recycle Team educates Environmental Compliance Officers (ECOs) about Program operations and available services. The week-long training helps ECOs recognize compliance requirements, as well as the intent behind the requirements for all of Fort Hood's environmental programs.

Environmental Excellence in Weapon System Acquisition

TEAM



Stryker Brigade Combat Team-Warren, Michigan

The Stryker Brigade Combat Team (SBCT)-Environmental Management Team strives to integrate environmental compliance and stewardship with its core mission to provide superior acquisition and develop and sustain the Stryker Family of Vehicles that afford the War Fighter quick response maneuvering, expanded fight versatility, proven tactical agility, and enhanced survivability and lethality. To help achieve this goal, SBCT designed vehicle survivability kits and Double V-Hull (DVH) Strykers and considered potential environmental impacts during their manufacturing, testing, operation, support, and disposal. These DVH Strykers play a critical role in Department of Defense (DoD) mission success because they significantly increase crew and vehicle protection against improvised explosive devices. By incorporating input from the vehicle system manufacturer, soldiers, and maintenance personnel into their processes, SBCT noted substantial progress eliminating hazardous materials (HazMat), particularly Cr6+, on the Stryker Family of Vehicles while continuing to satisfy all performance requirements. Although Stryker vehicles are not totally free of Cr6+, the progress to date in this field represents a substantial step in the Team's goal to complete HazMat elimination, and demonstrates DoD's commitment to enable the military mission while protecting the environment.

Stryker Brigade Combat Team's accomplishments include:

- Incorporated environmental analysis into the acquisition decision making process. SBCT continued to use a system engineering methodology to ensure a comprehensive approach in establishing its membership, resolving environmental impacts, and implementing pollution prevention opportunities. This methodology allowed SBCT to receive direct input from areas not typically included within a vehicle system program, and quickly share lessons learned across the Army and DoD.
- Proactively removed HazMat from the Stryker Family of Vehicles by setting strict production requirements and using government and commercial information sources to identify existing material alternatives that are commercially available. These materials also have reduced environmental and health impacts, provide equal or superior performance, achieve cost savings/avoidance, and were previously validated in other tradeoff studies.
- Participated in research, development, and technology demonstration and validation projects to use Thin Dense Plated Aluminum as a cadmium replacement for mechanical fasteners and electrical connectors on Stryker vehicles.
- Eliminated over 50 percent of the remaining HazMat on Stryker Family of Vehicles Flat bottom and DVH Stryker variants by part number.
- Ultimately reduced an estimated 75 to 80 percent in the total number of parts per Stryker vehicle utilizing HazMat.
- Collaborated with partners to develop solutions to complex environmental and performance challenges, such as the National Aeronautics and Space Administration Corrosion Technology Laboratory to advance corrosion technology and HazMat reduction methodologies.



A Stryker in theatre fording a small body of water. These types of environments require a robust corrosion resistant metal/surface finish and Chemical Agent Resistant Coating paint topcoat system. The HazMat free Stryker utilizes recent innovative solutions in surface finishing that meet both corrosion resistance and HazMat elimination requirements.



Thin Dense Plated Aluminum coated bolts are installed on Stryker wheel assemblies. After 2.5 years of service in Hawaii, these unpainted bolts, which were exposed to a Tropical Environment, show no sign of corrosion degradation.

Natural Resources Conservation

SMALL INSTALLATION



Marine Corps Base Hawaii

Marine Corps Base (MCB) Hawaii is an active military installation that is rich in biological diversity, with stunning landscapes and seascapes across 4,500 acres on the islands of O'ahu and Molokai. The base supports combat readiness, quality of life, and natural resources conservation through a comprehensive Integrated Natural Resources Management Plan (INRMP). In FY2010-FY2011, MCB Hawaii personnel successfully completed, reviewed, updated, and executed the actions outlined in this INRMP in a timely manner and within a budget of about \$12 million over 10 years. During that time, this highly effective INRMP achieved a "Green Score" during annual reviews with Sikes Act partners and military operators following a prescribed web-based scoring process. In 2011, MCB Hawaii received two Certificates of Recognition from the U.S. Fish and Wildlife Service for outstanding partnering efforts for resources conservation, and from Outdoor Circle, the oldest and highly venerated environmental organization in Hawaii, for sustainable landscaping initiatives. MCB Hawaii's outstanding natural resources efforts enable the military mission and ensure that Hawaii's natural heritage is preserved for present and future generations.

Marine Corps Base Hawaii's accomplishments include:

- Expanded staff and interagency cooperation to deploy more effective predator trapping technologies and protect endangered species (e.g., enhanced a population of an endangered plant species that had been unseen on base since the 1930's by enclosing it within a cage to prevent rodent damage).
- Did not require inclusion in a proposed Critical Habitat designation for endangered Hawaiian Monk Seals covering O'ahu. Seal sightings are increasing on base, and National Oceanographic and Atmospheric Administration (NOAA)-Fisheries determined that MCB Hawaii's INRMP provides sufficient conservation benefits to the species.
- Executed an ecosystem-based watershed approach to water quality and erosion control by implementing the last \$1.9 million phase of a decade long, \$3.5 million effort to detect, design, and treat erosion "hot spots" in/around Ulupa'u Crater with the latest stormwater technologies. This effort better sustains a weapons range, landfill, protected seabird colony, and housing while removing sediment from downstream marine areas.
- Made sustainable landscaping improvements on base using at least 50 percent native plants following INRMP lists of preferred native and prohibited invasive species. MCB Hawaii also planted 230 indigenous trees between 2009 and 2011, and improved range vegetation via a phased, cooperative approach (e.g., the base removed flammable invasive Fountain grass plaguing other Hawaii lands through annual, interagency patrols).



In 2010 and 2011, base personnel removed 8,000 feet of illegal lay nets, 22 fish traps, and 3 tons of marine debris. Recently, there have been increased sightings of both endangered monk seals and threatened Olive Ridley turtles.



Reducing fuel loads on MCB Hawaii training areas is a natural resources priority. After 10 years of annual interagency "Fountain grass patrols" at Marine Corps Training Area-Bellows, personnel have almost entirely removed this highly flammable noxious weed, thus reducing fire risk on base.

Environmental Quality

INDIVIDUAL/TEAM

Naval Supply Fleet Logistics Center, Pearl Harbor, Hawaii

The Naval Supply (NAVSUP) Fleet Logistics Center, Pearl Harbor Environmental Quality Team is a critical logistics provider to the armed services, and the largest defense fuel support point in the Pacific for the Department of Defense (DoD). In FY2010 and FY2011, the team took bold and innovative measures to address a number of significant environmental issues by partnering with Navy experts, regulatory agencies, and community resources. Their stewardship efforts included monitoring operations, conducting visits to help shop supervisors maintain compliance, and educating the workforce to help preserve Hawaii's fragile ecology. The team identified process changes and technical upgrades to implement Executive Orders, DoD strategic plans, and other documents relating to environmental compliance. Thanks to these outstanding endeavors, the team succeeded in reducing energy and water consumption, promoted recycling, eliminated toxic and hazardous waste from the workplace, and properly disposed of electronic products.

Naval Supply Fleet Logistics Center, Pearl Harbor Environmental Quality Team's accomplishments include:

- Managed and operated the region's hazardous materials center, minimizing hazardous waste generation. This effort led to over \$5.5 million in procurement cost savings and \$20.5 million in disposal cost avoidance.
- Reduced energy use through a combination of facility upgrades and personnel training on conservation methods. NAVSUP Fleet Logistics Center, Pearl Harbor reduced its energy consumption by 39 percent at the end of FY2011, exceeding DoD's target level.
- Demonstrated strong partnership by assisting the Air Force in its biosecurity project to prevent rodent migration to Wake Atoll.
- Participated in a unique public-private sector, multi-agency, area-wide oil spill functional exercise under the national oil spill Preparedness for Response Exercise Program, as mandated by the Oil Pollution Act.
- Reclaimed 237,000 gallons of not ready for issue fuel in FY2010 and FY2011 at the Fuel Oil Reclamation Facility. The team sold this commodity to a local refinery instead of disposing it, and achieved a net savings of \$3.9 million.
- Conducted Earth Day events in FY2010 and FY2011 with partners from other Navy and Air Force commands, local and Federal agencies, and the private sector. These initiatives included fairs, alternative energy vehicle displays, and projects with the command's partner school.



SFC Jaime ("Doc") Carvajal conveys the wonder and beauty of trees to students at Navy Hale Keiki School. He helped with the 2011 Earth Day tree planting event at their school campus.



Fuel Department personnel deploy a weir skimmer during a near shore oil spill response exercise at a Pearl Harbor wharf. This drill helped meet Preparedness for Response Exercise Program requirements under the Oil Pollution Act. These training and exercises ensure that the team is ready to quickly and safely respond to oil spills.

Environmental Restoration

INDIVIDUAL/TEAM



Former Mare Island Naval Shipyard, California

Mare Island Naval Shipyard (MINS) is located in Vallejo, California and encompasses over 5,000 acres of land. It was the first U.S. Naval installation on the West Coast, and operated for 142 years from 1854 until its closure in 1996. During its operation, MINS' primary mission was to build, maintain, and repair Navy ships and submarines. Additionally, MINS housed an ordnance facility that produced and stored munitions from 1857 to 1972. In FY2010-FY2011, the Environmental Restoration Team for the former MINS achieved remedy-in-place for a complex, 230-acre disposal area (landfill) known as Investigation Area H1 (IA-H1). This process was complicated due to IA-H1's geology as well its location in an environmentally sensitive and politically active community. The IA-H1 Restoration Team employed transformational thinking to execute the landfill cap placement while ongoing time-critical removal actions occurred at five other installation restoration sites at MINS. These removal actions ultimately resulted in substantial cost savings and avoidance of greenhouse gas emissions. This amazing conversion of a landfill into a recreation area, wildlife refuge, and wildlife viewing platform is a source of pride not only for the IA-H1 Restoration Team, but for contributing community members, regulators and contractors, and the Department of Defense.

Former Mare Island Naval Shipyard, IA-HI Restoration Team's

- accomplishments include:
- Realized \$42 million in disposal cost and cap cover construction savings, and avoided greenhouse gas emissions (more than 9,000 tons of CO₂).
- Incorporated green remediation techniques into the design and implementation of the landfill cap, including wetlands surface water replenishment from landfill cap runoff and onsite fuel storage, carpooling, and the use of local vendors.
- Successfully partnered with regulatory and community stakeholders to address concerns for eco-receptors, including protecting the salt marsh harvest mouse, a state and federally listed endangered species, along with improving 120 acres of existing wetlands, creating 8.7 acres of additional wetlands, and developing public access trails.
- Generated \$20 million for small and disadvantaged businesses in a local community severely impacted by base closure.



MINS installed the IA-H1 landfill cap over the Containment Area covering approximately 73 acres of the IA-H1 site. The gentle sloping of the cap design decreases potential erosion and thus decreases maintenance costs. In this photo, the field team is installing the geo-composite venting layer.



Over 120 acres of wetlands exist within the IA-H1 site. An additional 8.7 acres were created during the IA-H1 remedy installation. The cap is designed to drain surface runoff into the wetlands, enhancing their ability to support native vegetation and endangered species such as the salt marsh harvest mouse.

Environmental Restoration

INSTALLATION



75th CEG, Hill Air Force Base, Utah

Hill Air Force Base (AFB) is located approximately 30 miles north of Salt Lake City, and is the Air Force Center of Industrial and Technical Excellence for stealth aircraft structural composite materials. The base's Environmental Management Team promotes cost-efficient environmental stewardship on Hill AFB's nearly one million acres of testing and training ranges, while meeting the Air Force's mission objectives. As a critical component of this program, the Hill AFB Restoration Team consistently leads the way in identifying, evaluating, developing, and implementing innovative techniques and technologies that improve the efficiency and effectiveness of remediation efforts while minimizing impact to the mission, human health, and the environment. The Restoration Team's accomplishments include implementing early cleanup actions, optimizing the performance of remedial systems, and closing sites as soon as practicable. Their efforts go above and beyond compliance and reflect the Department of Defense's (DoD's) commitment to environmental excellence.

Hill Air Force Base's accomplishments include:

- Pioneered a method to accurately distinguish between vapors from ground water and vapors emitted from typical household items. This innovative approach has been very successful at reducing the number of unnecessary mitigation systems on installations, and has saved the Air Force \$220,000 annually in monitoring and analytical costs, along with an additional \$3.6 million in lifetime program costs.
- Evaluated and implemented 29 energy-saving initiatives associated with remedial systems operation. These initiatives reduced energy consumption by 35 percent, saved more than \$250,000 in energy costs per year, and reduced the base's carbon footprint by 30 percent (approximately 360,000 pounds of CO_2). The payback period for this investment is estimated to be about 2.4 years.
- Participated with university research scientists in a cooperative study to develop a better understanding of what makes a house susceptible to vapor intrusion, and what combination of conditions must exist for vapor intrusion to occur. The study was recently named the DoD Strategic Environmental Research and Development Program/Environmental Security Technology Certification Program (SERDP/ESTCP) Project of the Year.
- Conserved time and money on the restoration of a contaminated area to satisfy enhanced use lease requirements using performance-based contracting mechanisms. These mechanisms provided flexibility when choosing which characterization and remediation methods to employ to achieve cleanup objectives. The overall approach allowed the base to characterize the entire site in less than 24 days.



Using a device known as a HAPSITE, Hill AFB workers identify this stuffed deer head as the source of volatile organic compound (VOC) vapors in a home. If the Air Force can trace VOC vapors to an inside source, it saves them thousands of dollars that would have otherwise been spent installing and maintaining a vapor mitigation system.



Crews perform a surface sweep of an area suspected to have munitions. Investigations in this area are taking place as part of the Military Munitions Response Program on nearly 120,000 acres of land adjacent to the Utah Test and Training Range.

Cultural Resources Management

INSTALLATION

30th Space Wing, Vandenberg Air Force Base, California

Vandenberg Air Force Base's (VAFB's) Integrated Cultural Resources Management Plan (ICRMP) comprises 14 stand-alone volumes, and is a testament to the diversity of cultural resources and management practices present on base. Among the more than 1,500 identified prehistoric resources, there are 14 rock art sites, five named historic Native American villages, numerous cemeteries, and hundreds of shell midden sites, including the oldest dated archaeological deposit on the Central Coast mainland. The more than 300 historical resources include one National Historic Landmark, one National Historic Trail, 118 historical archaeological sites, and numerous historic buildings and structures ranging from adobes to the site of the Nation's first Intercontinental Ballistic Missile to be put on active alert. VAFB protects and preserves this incredible inventory of cultural resources while also supporting the base's mission of space and missile launch objectives. Base personnel implemented innovative approaches to site preservation within the context of Section 106 compliance, resulting in impressive cost avoidances and accelerated project schedules. Stakeholder involvement is another cornerstone of this award winning program; local community interest is high and fostered through robust public outreach efforts.

Vandenberg Air Force Base's accomplishments include:

- Supported two massive initiatives to replace critical electrical distribution lines to launch complexes. Although the Areas of Potential Effects contained 64 sites, engineers and archaeologists developed avoidance measures to achieve a finding of no adverse effect, saving more than \$1 million in testing and data recovery excavations.
- Identified the oldest known archaeological deposit on the Central Coast mainland using a newly-redesigned Section 110 condition assessment program. Base personnel carried out excavations that will provide the first glimpse into the earliest known human occupation on VAFB.
- Visited the Smithsonian Institution and National Anthropological Archives to research collections generated in 1875 from three VAFB sites, and presented the results at Society for California Archaeology meetings along with 11 other papers on VAFB research.
- Recovered and restored a rare and remarkably complete 80,000-year-old fossilized cranium of an extinct horse species that lived during the Pleistocene and was part of a group of animals known as the *Rancholabrean megafauna*.
- Removed select invasive eucalyptus trees, thereby reestablishing the solar event at Window Cave during Winter solstice, where you can observe the sun setting parallel to the north slope of Tranquillon Peak. Native Americans of the Chumash tribes consider this a sacred event.
- Partnered with Mission La Purisima State Park to manage overgrown tule reed and willow stands at Pine Lakes recreation area, and provided materials for a volunteer-organized project to construct a Chumash tule hut at no expense to the Air Force or the Park.



Volunteers working at the Mission La Purisima State Park built a Chumash tule hut with willow poles and tule reeds from the Pine Lakes recreation area on VAFB to clear and re-open multiple access points along the shoreline.



VAFB archaeologists excavate a fossilized skull from halfway up a 40-foot tall sea cliff within the sediments of an 80,000 year old marine terrace. Paleontologists identified the remarkably complete skull as part of an extinct species of horse that lived during the Pleistocene– a member of a group of animals known as the Rancholabrean megafauna.

HONORABLE MENTIONS

Cultural Resources Management, Installation

Fort Indiantown Gap National Guard Training Center, Pennsylvania Army National Guard Joint Base Pearl Harbor-Hickam, Hawaii Marine Air Ground Task Force Training Command, Marine Corps Air Ground Combat Center, Twentynine Palms, California Defense Supply Center, Richmond, Virginia

Environmental Quality, Non-industrial Installation

Commander, Fleet Activities, Yokosuka, Japan Eglin Air Force Base, Florida Marine Corps Air Station Yuma, Arizona

Environmental Quality, Individual/Team

Kristin A. Nester, Fairchild Air Force Base, Washington Defense Logistics Agency San Joaquin Installation Recycling Team, California Missile Defense Agency's Environmental Management Program (DPFE), Alabama

Environmental Restoration, Installation

Fort Stewart/Hunter Army Airfield, Georgia Portsmouth Naval Shipyard, Maine Marine Corps Base Camp Lejeune, North Carolina

Environmental Restoration, Individual/Team

U.S. Army Garrison Fort A.P. Hill, Environmental Restoration Team, Virginia Joint Base Elmendorf-Richardson, Environmental Restoration Team, Alaska Marine Corps Air Station Cherry Point Tier 1 Partnering Team, North Carolina

Natural Resources Conservation, Small Installation

Marseilles Training Center, Illinois Army National Guard Pacific Missile Range Facility, Barking Sands, Hawaii 319 CES/CEAN, Grand Forks Air Force Base, North Dakota Raven Rock Mountain Complex, Pennsylvania

Natural Resources Conservation, Individual/Team

Naval Support Activity Panama City Environmental Office, Florida Vandenberg Air Force Base, Natural Resources Team, California Marine Corps Air Station Miramar, Natural Resources Team, California

Sustainability, Industrial Installation

Naval Weapons Station Seal Beach, California Hill Air Force Base-75 CEG/CEV, Utah Marine Corps Air Station, Cherry Point, North Carolina Defense Supply Center, Richmond, Virginia

Environmental Excellence in Weapon System Acquisition, Team

F/A-18E/F & EA-18G Program Office, PMA 265, Green Hornet Team, Patuxent River, Maryland Fairchild Air Force Base, Environmental Management System Cross Functional Team, Washington

JUDGES

Volunteers from private industries, state and federal agencies, non-governmental organizations, and military retirees served as judges for the 2012 Secretary of Defense Environmental Awards.

Ms. Tracey Adams, Senior Program Associate, National Public Lands Day, National Environmental Education Foundation, Washington, D.C.

Mr. Bryan Arroyo, Assistant Director, Fisheries and Habitat Conservation, U.S. Fish and Wildlife Service, Washington, D.C.

Mr. Alex Beehler, Senior Advisor, B&D Consulting, Washington, D.C.

Dr. Robert Brown, Dean, College of Natural Resources, North Carolina State University, Raleigh, NC

Mr. Dave Cleaves, Climate Change Advisor to the Chief, U.S. Forest Service, Washington, D.C.

Mr. Jeffrey Corbin, Senior Advisor to the Administrator for the Chesapeake Bay and Anacostia River, U.S. Environmental Protection Agency, Philadelphia, PA

Mr. Jim Darr, Chemist, Pollution Prevention Division, U.S. Environmental Protection Agency, Washington, D.C.

Ms. Heide-Marie Dudek, Project Manager, New York State Department of Environmental Conservation, Albany, NY

Mr. Tom Edwards, Vice President, State and Federal Government Relations, Verizon, Washington, D.C.

Ms. Lisa Garcia, Associate Assistant Administrator for Environmental Justice, U.S. Environmental Protection Agency, Washington, D.C.

Mr. William Garvey, Deputy Associate Director, Office of the Federal Environmental Executive, Council on Environmental Quality, Washington, D.C.

Mr. Daniel Gogal, Senior Environmental Protection Specialist, Office of Environmental Justice, U.S. Environmental Protection Agency, Washington, D.C.

Mr. Lew Gorman, Partnerships Coordinator, Endangered Species Program, U.S. Fish and Wildlife Service, Arlington, VA

Mr. Horst Greczmiel, Associate Director for National Environmental Policy Act Oversight, Council on Environmental Quality, Washington, D.C.

Dr. Robin Hawks, Preservation Officer, Division of Cultural, Paleontological Resources, and Tribal Consultation, Bureau of Land Management, Washington, D.C.

Mr. Michael Houlemard, Executive Officer, Fort Ord Reuse Authority, Marina, CA

Ms. Sherry Hutt, Program Manager, National NAGPRA Program, National Park Service, Washington, D.C.

Ms. Austin Kane, Policy Specialist, Chesapeake Mid-Atlantic Regional Center, National Wildlife Federation, Annapolis, MD **Ms. Katherine Kennedy**, Senior Attorney, Natural Resources Defense Council, New York, NY

Ms. Kathleen Kilpatrick, State Historic Preservation Officer, Virginia Department of Natural Resources, Richmond, VA

Dr. Fran Kremer, Senior Science Advisor, Office of Research and Development, U.S. Environmental Protection Agency, Cincinatti, Ohio

Mr. William Levitan, Director, Office of Environmental Compliance, U.S. Department of Energy, Washington, D.C.

Mr. John Lydon, National Program Leader, Weed Science, U.S. Department of Agriculture, Beltsville, MD

Dr. Wayne Miller, Adjunct Professor, Chemistry and Environment Engineering and Associate Director, CE-CERT, University of California, Riverside, CA

Mr. Rick Moss, Assistant Executive Officer, Central Valley Regional Water Board, Sacramento, CA

Mr. Michael Penders, Chairman, Environmental Security International, Manassas, VA

Mr. David Price, Chief of Staff Office of the Chief Financial Officer, U.S. General Services Administration, Washington, D.C.

Mr. Russell Randle, Partner, Patton Boggs LLP, Washington, D.C.

Ms. Kathleen Schamel, Historic Preservation Officer, U.S. Department of Veterans Affairs, Washington, D.C.

Ms. Nancy Schamu, Executive Director, National Conference of State Historic Preservation Officers, Washington, D.C.

Mr. Lenny Siegel, Executive Director, Center for Public Environmental Oversight, Mountain View, CA

Mr. Mervyn Tano, President, International Institute for Indigenous Resource Management, Denver, CO

Dr. Bea Van Horne, Program Manager, U.S. Forest Service Pacific Northwest Research Station, Corvallis, OR

Dr. John Wiens, Chief Conservation Science Officer, PRBO Conservation Science, Petaluma, CA

Mr. Jim Woolford, Director, Office of Superfund Remediation and Technology Innovation, U.S. Environmental Protection Agency, Arlington, VA

PAST WINNERS

Cultural Resources Management

2011 88th Air Base Wing Civil Engineering Directorate, Environmental Branch, Wright-Patterson Air Force Base, Ohio

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- 2011 Cultural Resources Management Team, Eglin Air Force Base, Florida
- 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

- 2011 U.S. Army Garrison Grafenwoehr, Germany
- 2011 Defense Supply Center, Richmond, Virginia
- 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

Environmental Restoration

- 2011 Cape Canaveral Air Force Station, Florida
- 2010 Hill Air Force Base, Utah
- 2010 Ms. Regina Dixon Butler, Patrick Air Force Base, Florida

THE 2012 SECRETARY OF DEFENSE ENVIRONMENTAL AWARDS

- 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

Provident P

- 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

Natural Resources Conservation

- 2011 Eglin Air Force Base, Florida
- 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
- 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
- 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)

- 2011 Joint Base Lewis-McChord, Washington
- 2011 The Exchange Corporate Sustainability Program, Army and Air Force Exchange Service, Texas
- 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

- 2011 Sustainable Painting Operations for the Total Army, Aberdeen Proving Ground, Maryland
- 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



For more information about the Secretary of Defense Environmental Awards, visit denix.osd.mil

