# The Secretary of Defense Environmental Awards

2007

*This year marks the 45th anniversary of the Secretary of Defense Environmental Awards. The Department of Defense initiated the awards with the intention of not only recognizing the achievements of individuals who protect and preserve the natural resources on our military installations, but also to promote and instill an environmental ethic in the day to day operations of the Department.*

*Over the years, we have come to understand how much we all rely on the continued health and vitality of our natural resources to maintain readiness and enhance the capability of our forces to accomplish the national security mission. Today, we employ environmental management systems that integrate environmental sustainability with mission planning, a process that delivers more cost effective, environmentally sound capabilities, and increases our ability to respond to complex global threats.*

*Since 1962, individuals, teams, and installations compete for recognition of their achievements in the areas of compliance, restoration, conservation, pollution prevention, acquisition, and cultural resources. These men and women, civilian and military, help reduce pollution, energy consumption, and greenhouse gas emissions. They promote the use of alternative clean, secure, and renewable sources of energy. They develop, test, and implement innovative technologies that eliminate wastes. They work with communities, state and local governments, and other agencies to conserve open spaces surrounding our installations, reclaim water resources, and protect and restore the habitats of hundreds of threatened and endangered species.*

*Their extraordinary actions raise our expectations of what is possible and inspire us all to seek out opportunities to preserve and improve our natural resources, and to reach beyond compliance to ensure a secure and sustainable future for the environment, our armed forces, and our nation.*

*Congratulations to this year's winners.*

*Mr. Philip W. Grone*
*Deputy Under Secretary of Defense*
*(Installations and Environment)*

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# About the Awards

## 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.

## 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 property, 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.

## Pollution Prevention

Pollution prevention includes recycling and waste reduction, reducing or eliminating the use of hazardous materials and ozone-depleting substances, developing safer alternatives to these substances, and purchasing environmentally preferable products. The Department's investment in pollution prevention has decreased the pollution and hazardous wastes generated at our installations, reducing the risks to the public and the environment and resulting in cost savings.

## Environmental Restoration

The Defense Environmental Restoration Program restores property that has been impacted by past defense activities. 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.

# Arnold Air Force Base, Tennessee

Natural Resources Conservation
Large Installation

The Tiger Salamander and twenty-six other species of amphibians (14 anurans and 12 salamanders), have found refuge at Arnold Air Force Base.

Arnold Air Force Base is home to the largest and most advanced flight simulation test complex in the world. With 58 aerodynamic and propulsion wind tunnels, Arnold Engineering Development Center facilities can simulate flight velocities from subsonic to well over Mach 20, and altitudes up to 300 miles above sea level. An important part of Arnold Air Force Base's military mission is restoring the habitats and protecting the endangered plants and wildlife indigenous to the Tennessee Cumberland Plateau.

Arnold Air Force Base's Natural Resources Conservation Accomplishments:

- Restored the habitats of 21 endangered animals and 63 endangered plant species.
- Delisted the federally threatened Eggert's sunflower in September 2005.
- Controlled 20 invasive species on 3,300 acres.
- Obtained jurisdiction over their wetlands from the Nashville U.S. Army Corps of Engineers, saving the installation $50,000.
- Conducted conservation education through partnerships with the U.S. Fish and Wildlife Service, Tennessee Army National Guard, and Tennessee Wildlife Resources Agency.

Species recovery efforts led to removal of Eggert's sunflower from the threatened species list in September 2005.

# Fort Drum, New York

Cultural Resources Management Installation

Soldiers are provided training in recognizing and avoiding sensitive cultural resources.

Fort Drum, home of the Army's 10th Mountain Division, is situated on 107,265 acres in the North Country Region of New York. Currently the most deployed division in the Army, the 10th Mountain Division has played an important role in military operations in Iraq and Afghanistan. At home, Fort Drum's Cultural Resource Management Team is responsible for over 200 prehistoric and 700 historic archeological sites and six National Register Listed Historic and Archeological Districts. The team uses an Integrated Cultural Resources Management Plan to ensure that cultural resources are considered in all facility and mission planning, including the preservation of archaeological sites such as the Paleo Period Glacial Lake Iroquois settlements and the early nineteenth century LeRay Mansion.

Fort Drum's Cultural Resources Management Accomplishments:

- Developed and applied site hardening techniques across the installation to reclaim and preserve cultural resources.
- Constructed mock Middle Eastern archaeological sites to instruct pilots on recognizing and avoiding cultural resources during live fire activities.
- Developed and distributed training aids to Soldiers deployed overseas for recognizing and avoiding sensitive cultural resources.
- Saved over $100,000 per year in survey costs through predictive modeling.
- Incurred no delays due to cultural resource conflicts or damage to any cultural properties during new construction projects.

Constructed in 1826 and recently restored, the LeRay Mansion, along with several companion structures, comprises the only registered historic district on Fort Drum.

# Mr. Gary M. O'Donnell
# Hickam Air Force Base, Hawaii

Cultural Resources Management
Individual/Team

Hickam Air Force Base's 15th Airlift Wing provides world-class en route support and operational ready forces capable of rapid deployment anywhere in the Pacific-Asian region. As Chief of the wing's Environmental Planning Element and Base Historic Preservation Officer, Mr. Gary M. O'Donnell demonstrated exceptional leadership in managing Hickam Air Force Base's cultural resources during his 19-year tenure, drawing from his partnerships with the Native Hawaiian organizations, and an innate respect for the cultural history of Hawaii and the Pacific region.

Traditional Hawaiian artifacts; Hammer Stone, Basalt Adz, and Shell Octopus Lure.

"You [Mr. O'Donnell] promote awareness of and respect for all that is historically significant and architecturally distinctive at Hickam Air Force Base, keeping it intact for the enjoyment for the Air Force personnel and their families as well as for present and future residents of Honolulu."

*—Kiersten Faulkner, Director, Historic Hawaii Foundation*

Mr. O'Donnell oversees construction of the World War II "Atterbury Circle Memorial of Heroes."

Mr. O'Donnell's Cultural Resources Management Accomplishments:

- Incorporated Hickam's rich cultural heritage into the overall mission.
- Invited the local community to participate in landscape maintenance of a Native Hawaiian burial vault, and replaced invasive wetlands plants with native Hawaiian species.
- Implemented Preserve America's Interpretative Plan for heritage tourism.
- Educated base planners and engineers on adaptive use of historic structures.
- Completed Integrated Cultural Resource Management Plans for all installations under the 15th Airlift Wing's command.
- Developed a Residential and Non-Residential Building Preservation Plan and streetscape assessments.

# Tinker Air Force Base, Oklahoma

Environmental Quality
Industrial Installation

Tinker Air Force Base converted the B-1, B-52, and C-130 aircraft surface treatments to a more environmentally sound process, saving $120,000 annually and resulting in better paint adhesion.

Tinker Air Force Base, home to the Oklahoma City Air Logistics Center and the 72nd Air Base Wing, provides worldwide technical logistics support to Air Force and Navy weapon systems. Tinker Air Force Base also manages diverse fleet of aircraft, including the B-1, B-2, B-52, C/KC-135, and E-3, and an inventory of approximately 23,000 jet engines. Striking a balance between mission requirements and environmental quality, Tinker Air Force base's Environmental Management Division leads the Air Force in their use of alternative fuels, substitution of hazardous materials, and implementation of innovative pollution prevention technologies.

Tinker Air Force Base's Environmental Quality Accomplishments:

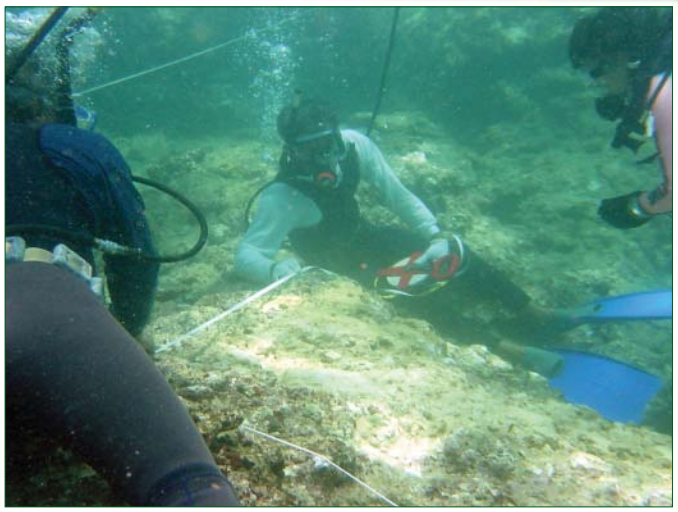
- Operated 75 percent of base vehicles using alternative fuels.
- Successfully tested the TF-33 engine using a non-petroleum based jet fuel.
- Provided Environmental Management System training to 20,000 employees and contractors.
- Voluntarily developed plans to reduce the use of five chemicals in base operations.
- Optimized environmental monitoring activities, projected to save $10 million over the next 20 years.
- Employed Geographic Information System mapping to process over 4,100 environmental impact requests while incurring no mission delays.

Local schools participate in wetland habitat restoration.

# Marine Corps Base
# Camp Smedley D. Butler, Japan

Environmental Quality
Overseas Installation

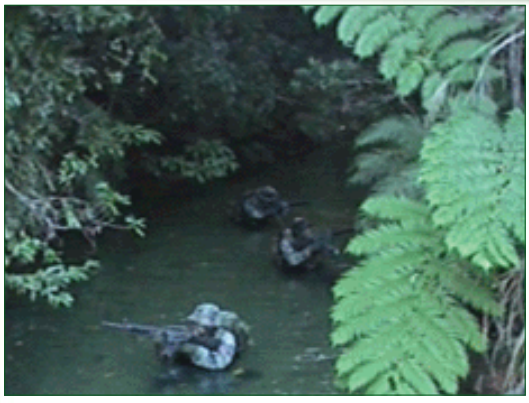
Marine Corps Base, Camp Smedley D. Butler manages the natural resources on 45,276 acres throughout the islands of Okinawa and Ie Jima in Japan. Varying terrains and diverse ecological habitats promoted innovative management practices to preserve and protect the over 260 rare, threatened, and endangered plants and animals, and 6,000 year old archeological sites within installation grounds. Camp Smedley D. Butler's efforts to sustain the natural resources, to prevent and control pollution, and reduce wastes, have enhanced the Marine Corps operational readiness and strengthened their relationship with the communities of Okinawa and Ie Jima.



Environmental staff evaluate a coral reef near Camp Schwab after an Amphibious Assault Vehicle accident.

Marine Corps Base, Camp Smedley D. Butler's Environmental Quality Accomplishments:

- Staff and outside experts provided environmental management training to military and civilian residents.
- Installed ten sediment/oil separators using high flow diversion weirs to reduce stormwater discharges during tropical storms.
- Eliminated over 4,000 tons of waste through the installation's recycling program.



Camp Butler is home to the Department's only remaining Jungle Warfare Training Center at the base of Mt. Fuji.

- Developed an erosion control and slope stabilization program, which helped mitigate soil erosion at Camp Hansen.
- Used a Geographic Information System for environmental planning and evaluating potential environmental impacts.

# Marine Corps Base, Hawaii

Pollution Prevention
Non-Industrial Installation

During an oil shortage, the base used alternative fuels to maintain combat readiness.

Marine Corps Base Hawaii is home to 25,000 Marines, Sailors, civilian employees and family members working or living on the island of Oahu. Responsible for protecting and preserving natural resources crucial to the life and livelihood of local residents, Marine Corps Base Hawaii develops and implements pollution prevention technologies that enhance the natural environment by eliminating hazardous wastes, reducing energy use, and decreasing greenhouse gas emissions.

Marine Corps Base Hawaii's Pollution Prevention Accomplishments:

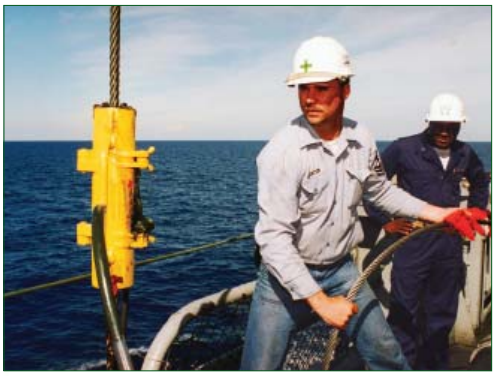
Water reclamation is used to irrigate Marine Corps Base Hawaii, saving 116 million gallons of water and $255,000 annually.

- Reduced consumption of 16 million kilowatts of electricity and 40 million gallons of water in construction projects, resulting in an annual savings of over $2 million.
- Eliminated emissions of 14,320 tons of carbon dioxide, 46 tons of nitrous oxides, and 40 tons of sulfur dioxide annually, through energy consumption reduction programs.
- Installed non-toxic weapons cleaning systems at armories, resulting in an annual savings of $4 million in disposal costs.
- Replaced Aqueous Film Foam with water in firefighting applications, and retrofitted all Aqueous Film Forming Foam vehicles.
- Developed an education and awareness program to encourage recycling and reduce disposal costs.
- Reclaimed contaminated soils, resulting in a savings of $3 million in disposal costs.
- Reduced the time required to clean weapons systems by 50 percent, equating to an annual savings of $4 million and 360,000 labor hours.

# Pollution Prevention Afloat Team
# Naval Sea Systems Command
# Washington, D.C.

Pollution Prevention
Individual/Team

Under sponsorship of the Chief of Naval Operations, the Naval Sea Systems Command Environmental Protection Systems Division's Pollution Prevention Afloat Team contributes to the successful operation of Navy ships by identifying and eliminating pollution at its source. The Team, with representatives from the Program Executive Offices, Naval Surface Warfare Center, Carderock Division (Bethesda and Philadelphia), Mid-Atlantic Regional Maintenance Center, Southwest Regional Maintenance Center, and the Naval Air Systems Command, works with both ship and shore communities to develop long-term solutions to reduce hazardous materials use on ships and decrease shore-side disposal.



Pollution Prevention Afloat Team developed a cable lubrication technology that reduces pollution and provides greater safety for Sailors and the environment.

The Pollution Prevention Afloat Team's Pollution Prevention Accomplishments:

- Saved $118 million in waste disposal and $15 million in procurement of consumables over ten years.
- Reduced maintenance requirements by 5 million hours over ten years.
- Reduced hazardous material disposal by 9,635 lbs per year on large ships and 2,757 lbs per year on small ships.

The team installed 18,000 pieces of pollution prevention equipment on 20 classes of ships.

- Developed a complete Integrated Logistics Support Package, to include training materials, maintenance requirement cards, maintenance index pages, allowance parts lists, and technical manuals.
- Established the Shipboard Environmental Information Clearinghouse Web site providing a broad range of information and data on the Shipboard Environmental Protection Program.

# Dover Air Force Base, Delaware

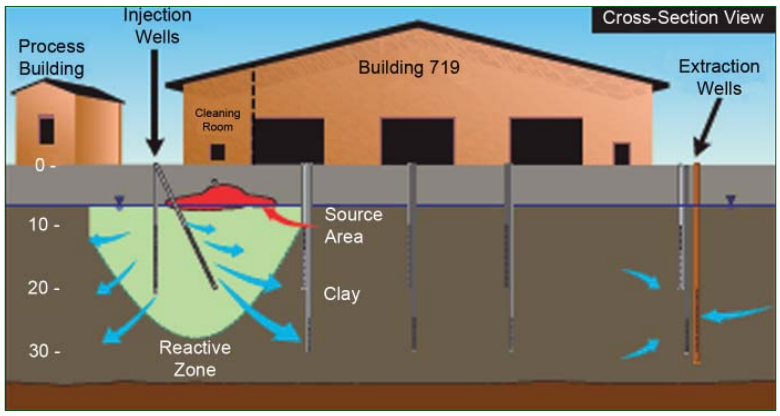
## Environmental Restoration Installation

Dover Air Force Base is home to the 436th Airlift Wing and a fleet of 22 C-5 Galaxy aircraft, the largest aircraft in the western world. Under the Defense Environmental Restoration Program, Dover Air Force Base restores those areas of the installation that have been impacted by past defense activities, in cooperation with state agencies and the U.S. Environmental Protection Agency.

The Dover fleet comprises one-quarter of the nation's strategic airlift capability, playing a major role in aerial resupply to support the Global War on Terrorism.

Dover Air Force Base's Environmental Restoration Accomplishments:

- Forged a partnership with the Department of Energy's Oak Ridge National Laboratory to address complex groundwater remediation projects.
- Achieved remedy in place at all remaining sites, eight years ahead of the Department's goals.
- Established mutual goals for cleanup and actively encouraged participation of regulatory agencies and the community in the restoration program.




An Accelerated Anaerobic Biodegradation Recirculation System was installed to treat contaminated groundwater under a jet engine maintenance facility.

- Used anaerobic bioremediation to cleanup chlorinated solvent in groundwater at 17 sites.
- Installed a bio-geochemical permeable reactive mulch barrier to contain and remediate chlorinated solvent in groundwater.
- Restored 54 acres of land, now available to support the base's operational mission.

# Honorable Mentions

## Natural Resources Conservation, Large Installation

Camp Edwards Training Site, Massachusetts Army National Guard, Massachusetts
Marine Corps Base, Camp Lejeune, North Carolina
Naval Weapons Station Charleston, South Carolina

## Cultural Resources Management, Installation

Marine Corps Air Station Beaufort, South Carolina
U.S. Navy Fleet Activities Sasebo, Japan
Eglin Air Force Base, Florida

## Cultural Resources Management, Individual/Team

Ms. Karstin Carmany-George, Indiana Army National Guard, Indiana
Marine Corps Recruit Depot, Paris Island, South Carolina
Cultural Resources Team, Commander Navy Region Northwest

## Environmental Quality, Industrial Installation

Letterkenny Army Depot, Pennsylvania
Marine Corps Air Station, Cherry Point, North Carolina
Fleet and Industrial Supply Center Puget Sound Manchester Fuel Department, Washington

## Environmental Quality, Overseas Installation

U.S. Army Garrison Grafenwoehr, Germany
U.S. Navy Fleet Activities Sasebo, Japan
Misawa Air Base, Japan

## Pollution Prevention, Non-Industrial Installation

Fort Lewis, Washington
Naval Station Everett, Washington
Luke Air Force Base, Arizona

## Pollution Prevention, Individual/Team

Radford Army Ammunition Plant Pollution Prevention Team, Virginia
Mr. Dave Cooke, Ms. Alicia Filzen, and Mr. Mike Robbins, U.S. Marine Corps Air Station, Cherry Point, North Carolina
Environmental Management Division Pollution Prevention Team, Tinker Air Force Base, Oklahoma

## Environmental Restoration, Installation

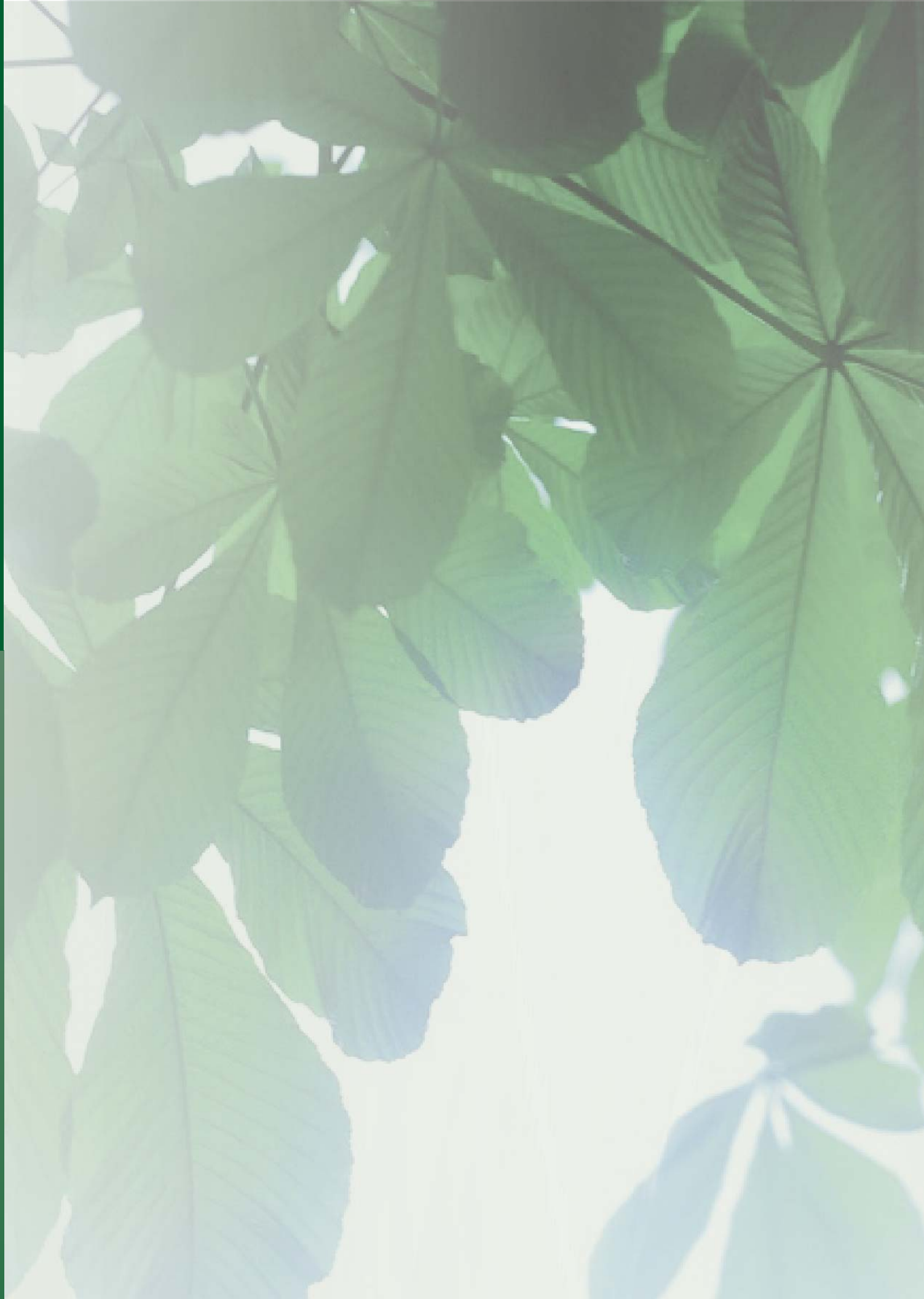
Fort Riley, Kansas
Marine Corps Base, Camp Lejeune, North Carolina
Naval Weapons Industrial Reserve Plant McGregor, Texas
Defense Depot Memphis, Tennessee

# Judges

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

- Dr. Jeff Altschul, Chairman, Statistical Research, Inc.
- Mr. Bob Ballard, Deputy Secretary, Florida Department of Environmental Protection
- Ms. Amy Cannon, Assistant Professor, Department of Work Environment Center for Green Chemistry, University of Massachusetts, Lowell
- Mr. John Carty, Director, Zurich Insurance Environmental and Professional Claims
- Mr. Joe Cascio, Senior Associate, Booz Allen Hamilton
- Dr. Richard Drawbaugh, Principal, Human Systems Integration, Headquarters Air Force, Vice Chief of Staff
- Col. Lewis Gorman, Military Liason, U.S. Fish and Wildlife Service
- Ms. Deborah Grubbe, Vice President, Group Safety, BP p.l.c.
- Mr. Gabriel Gruta, Office of Planning and Coordination, U.S. Environmental Protection Agency, Region VI
- Ms. Sherry Hutt, Program Manager, National Native American Graves Repatriation Act Program, National Park Service

- Dr. Wayne Miller, University of California, Riverside
- Mr. Michael Penders, President/CEO, Environmental Security International
- Mr. Chuck Pietsch, President/CEO, Chamberlain Group
- Mr. Edwin Pinero, Office of the Federal Environmental Executive, Council on Environmental Quality
- Ms. Ann Pritzlaff, Conference Coordinator, Colorado Preservation, Inc.
- Secretary Bill Ross, North Carolina Department of Environment and Natural Resources
- Ms. Nancy Schamu, Executive Director, National Conference of State Historic Preservation Officers
- Mr. Lenny Siegel, Director, Center for Public Environmental Oversight
- Mr. John Sparks, Technology Diffusion Specialist, Kentucky Pollution Prevention Center, University of Louisville
- Mr. Jim Swauger, Environmental Health Division, Allegany County Health Department
- Mr. Mervyn Tano, President, The International Institute for Indigenous Resource Management
- Ms. Cherilyn Widell, Principal Historic Preservation, HNTB
- Mr. Pete Wixted, Environmental Manager, Department of Commerce
- Mr. Harry Zimmerman, Booz Allen Hamilton



*For further information about the Secretary of Defense Environmental Awards, visit* ***www.denix.osd.mil****.*

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