

# 2004 Secretary of Defense Environmental Award



## Pollution Prevention Non-Industrial Installation

Hurlburt Field, Florida



**Celebrate Earth Day  
Every Day!**

## INTRODUCTION

Hurlburt Field is located on 6,634 acres in northwest Florida near the city of Fort Walton Beach. Hurlburt's 16th Special Operations Wing (SOW) and more than 50 additional units sustain and protect the environment while ensuring mission readiness. With more than 8,000 active duty personnel and 700 civilian employees, the wing is also the largest Air Force (AF) unit assigned to the U.S. Special Operations Command (USSOCOM), which conducts special operations worldwide.

The 16<sup>th</sup> SOW stands ready for worldwide unconventional warfare, counterinsurgency, or psychological operations.

## BACKGROUND

The pollution prevention (P2) mindset is integrated throughout the installation. The driving force behind this philosophy begins with the 16th SOW Commander; is sustained through the Environmental Protection Committee (EPC), P2 Subcommittee, and working groups; and is then implemented by each base employee.

The P2 Subcommittee meets regularly, often through working groups, and the P2 Subcommittee Chairman reports to the EPC, which is chaired by the wing commander. The EPC meets quarterly to track the status of environmental issues, thus providing an open forum to discuss P2 challenges and solutions. Unit commanders are active members of the EPC. They are committed to protecting natural resources and the environment, while providing combat superiority, readiness, and mission sustainability.

## PROGRAM SUMMARY

A comprehensive, basewide Environmental Management System assures the P2 program's overarching goal of integrating environmental quality issues into daily mission planning and execution. The Hurlburt P2 Team practices a "compliance through pollution prevention" philosophy to reduce costs as well as environmental, safety, and occupational health risks. The team applies the following P2 program objectives:

- Promote P2 as an integral part of the mission.

- Maintain a positive posture and leadership role on common P2 issues.
- Exceed all federal, state, and local P2 goals.
- Reduce environmental compliance burden and actively pursue and implement innovative ideas and technologies.

Hurlburt's exceptional P2 Program team is comprised of professionals from all base activities, ranging from Engineering to Logistics Readiness to Legal and environmental coordinators from each base unit. This interdisciplinary group aggressively pursues these objectives by reduction of both hazardous and non-hazardous materials consumed, product substitution and process change, and emphasis on awareness and training.

## ACCOMPLISHMENTS BY CATEGORIES

### MATERIAL SUBSTITUTION

Hurlburt continually seeks to go beyond compliance by devising ways to reduce or make substitutions before potential compliance issues arise. Staff members maintain an ever-present P2 mindset during internal Environmental Compliance Assessment and Management Program (ECAMP) audits and self-assessments, always exploring opportunities to further reduce, reuse, and recycle.

Chemical use has been minimized through a rigorous review and authorization process. EPA-17 chemical use has been reduced to only those still required by technical order (T.O.). For example, Hurlburt implemented a policy substituting the use of hazardous floor-cleaning products (shown to affect water quality) with effective earth-friendly cleaners.

### PROCESS MODIFICATION OR IMPROVEMENT

In full compliance with new 40 Code of Federal Regulation (CFR) requirements, Hurlburt completed its Spill Prevention, Control and Countermeasure (SPCC) Plan 2 years ahead of the EPA deadline. Upgraded containment systems were budgeted and will be in place before deadline. An early plan increased the ability to respond to incidents by 35%, thus minimizing the potential for spills. Of over 12 million gallons of fuel consumed on base each year, a minuscule .001 percent was

spilled, with none released to water or in reportable quantities.

Hurlburt personnel reduced the largest waste stream on base by 70% through a standardized spill-pad laundering program, decreasing disposal costs by \$5,000 each year. The spill pad is treated as a recyclable rather than a hazardous waste.

A technologically advanced electrostatic paint applicator was incorporated into corrosion control. The charged object draws paint to it, minimizing overspray, simplifying cleanup, and reducing liability/disposal costs. The improvement reduced the material required for cleaning by 30%, fugitive volatile organic compound (VOC) emissions by 99%, and paint waste by 70%.

A filter monitoring system was integrated into a new corrosion control facility, reducing the cumbersome waste stream by 65%. Filter replacement of the paint hangar is now based on usage rather than scheduled maintenance, saving thousands of dollars annually on new filter purchases, the disposal of old filters, and labor.

The Hurlburt P2 Team championed state-of-the-art microbial parts cleaners throughout the installation. An original \$8,000 machine resulted in eliminating the solvent waste stream with annual savings of \$3,000. Payback was immediate, and hazardous waste was eliminated as the microbes eat contaminants to replenish themselves.

Water-based paints were substituted for solvent paints on all 14 static display aircraft on base. This resulted in \$2,000 per year savings on materials and waste disposal as well as reduction of air emissions to almost zero.

#### IMPROVED MATERIAL MANAGEMENT

Hurlburt assiduously reviews more than 200 hazardous materials (HAZMAT) requests each month to ensure environmental compliance and hazard reduction. Requirements are validated, non-essential materials eliminated, and substitutions recommended. Hurlburt's HAZMAT management program was deemed the "Best program seen to date" by Dee LaGarde, Auditor, AF Audit Agency Eglin, with zero reportable findings.

The Hurlburt P2 team reused or recycled 24,000 lbs of HAZMAT recovered from deployed locations, saving the AF \$100,000 on the purchase of new materials and disposal of waste materials. Materials were redistributed through recycling, a base free issue system, and AF forums.

To reach 400 potential generators, including contractors, the Hurlburt team produced an easy-to-navigate yet explicit Hazardous Waste Disposal Guide. Monthly Staff Assistance Visits for Hazardous Waste Initial Accumulation Points (IAP) and contractor storage areas ensure full understanding with cooperative buy-in.

During a Household Hazardous Waste Amnesty Day, 7,134 lbs of hazardous chemicals and electronics were collected in 4 hours and diverted from local landfills, thanks to collaboration of Hurlburt staff with Okaloosa County officials. The Hurlburt Team then worked with the self-help store to gather and redistribute 400 partial paint cans that could have legally gone into household waste.

A 4.3-acre salt marsh along the Santa Rosa Sound's shoreline was constructed through ingenuity and partnering with the regulatory community. Spoil material from a marina dredging project was pumped directly into a constructed marsh basin project. More than \$300,000 was saved by



combining the two projects, thus avoiding sand disposal and purchase costs. The newly constructed marsh checks

erosion along 1,100 feet of shoreline near a sensitive archeological site, provides ecological diversity and a fish/wildlife habitat, improves water quality, serves as an outdoor classroom for school children on field trips, and directly supports the mission by providing mitigation for more than \$28 million in military construction projects.

#### COMPLIANCE WITH EXECUTIVE ORDER (EO) 13123: EFFICIENT ENERGY MANAGEMENT

Per EO 13123, the Hurlburt team demonstrates an exemplary energy management program—

advancing energy efficiency, water conservation, and the use of renewable energy products.

A \$3-million collaborative effort with the local energy provider enhanced energy efficiency in 38 buildings. The result was upgraded lighting and infrastructure in more than 1,309,235 square feet of building space. These upgrades will result in an annual savings of over 5 million kWh per year.

Hurlburt Field has been internationally recognized as a Groundwater Guardian Community for the past 7 consecutive years. The groundbreaking base water conservation policy saves some 160 million gallons per year by limiting water use in dry times, saving energy, and ensuring compliance with the state-mandated consumptive use permit.

#### **COMPLIANCE WITH EO 13148: LEADERSHIP IN ENVIRONMENTAL MANAGEMENT**

Hurlburt proactively integrates environmental accountability into day-to-day decision-making and long-term planning processes across the base, exceeding the requirements of EO 13148. An unheard-of zero Hazardous Waste findings in the 2003 external ECAMP were attributed to excellence in training and management. The assessor commented that it was “*Truly the best Hazardous Waste program we've seen.*”

An updated compliance site inventory with a comprehensive ranking system implements the Environmental Management System (EMS) by incorporating environmental, worker health and safety, and mission impact concerns. Completed in June 2004, this inventory system met all AF suspenses for EMS planning and implementation.

The Hurlburt P2 Team received the following kudos after collaborating with Florida agencies to evaluate Hurlburt's P2 management activities.

***"Excellent program!"** Brenda Leonard, P2 Program, Florida Dept of Environmental Protection NW Region*

***"No room for improvement."** Ray Moreau, Assoc. Director, Solid Waste Info. Exchange*

To ensure proper management of ozone-depleting substances (ODSs), Hurlburt Field personnel contracted an EPA-certified technician to recover ODSs from 25 industrial appliances destined for

disposal. The purged appliances were used for scrap metal while all refrigerant was recycled.

A comprehensive environmental flight website serves as an efficient information repository and exchange. Program summaries and accomplishments streamline information as well as provide lessons learned for base personnel. It also includes a special section devoted to the continuing education of Unit Environmental Coordinators (UECs).

Comprehensive analysis for potential Emergency Planning and Community Right-to-Know Act-Toxic Chemical Release Inventory (EPCRA-TRI) releases realized conclusive evidence of program success. Shop-by-shop verification found that only one chemical (lead from ranges) required TRI reporting; all other chemicals were far from the threshold limit.

#### **COMPLIANCE WITH EO 13149: FEDERAL FLEET AND TRANSPORTATION EFFICIENCY**

Per EO 13149, Hurlburt demonstrates leadership in reducing petroleum consumption through improvements in fleet fuel efficiency and the use of alternative fuel vehicles and alternative fuels.



In 2003, all non-emergency, non-tactical diesel vehicles were converted to biodiesel fuel with 81,475 gallons issued to 286 vehicles. In the same year, E-85 (85-percent ethanol) alternative fuel became mandatory for all compatible non-deploying fleet vehicles, with 12,594 gallons issued to 46 vehicles.

The P2 Team researched, funded, and purchased 10 rechargeable electric trucks to replace gas-powered EZ-Go cars. With high-efficiency gel batteries, the Global Electric Motorcar trucks travel at up to 25 mph. The cars are used an average of 20 miles per day for 225 days a year, which saves 4,500 gallons of fuel while generating zero air emissions.

#### **RECYCLING PROGRAM**

Hurlburt's comprehensive recycling program continually increases diversion of solid waste from

the landfill by not only focusing on traditional recyclables but unusual items as well. Since 2000, the base has exceeded the 40% AF goal, 5 years ahead of deadline. Monthly articles to the base paper, *The Commando*, keep the P2 message alive on varied subjects—from buying products made with recycled content to the harmful effects of cigarette butts thrown from cars.

Biennially, the Hurlburt recycling program generates approximately \$400,000 in revenue while saving the AF \$500,000 in costs avoided. Proceeds not only purchase updated equipment and pay overhead costs but reward participation through support of base activities including free unlimited swimming at the base pool and the 4th of July fireworks show.

In 2004, staff reused 5,000 tons of asphalt millings and 1,000 tons of concrete waste for local road, curb, gutter, and sidewalk projects. The materials were re-milled and re-used on site, saving \$210,000 in disposal costs, \$288,000 in purchase costs, and 6,000 tons of priceless landfill space.

A cellular phone recycling program eliminates batteries from the waste stream. Fifty phones per month are refurbished and donated to organizations such as women's shelters, which avoids improper battery disposal and nets \$1.50 per phone.

Over 96,000 gallons of used oil/off-spec fuel and 800 gallons of antifreeze were recovered and recycled through diligent management of waste, saving the government \$10,000 on new purchases along with disposal fees. 30,000 high pressure mercury, sodium vapor, and fluorescent lamps and tubes were also recycled.

A new Hurlburt Freecycling Program encourages residents to share unwanted items rather than dispose of them. A link to the website bulletin board promotes trading on base or in the local area; the 646 member program is a growing success.

Average recycling participation rates of each housing area were tracked and conveyed to base leadership for action with a target of 80%. After polling the residents, participation rates were increased with expanded recycling pickups for atypical items, such as glass and gift wrap.

After exhaustive research concluded that a base composting program was not economically feasible, the Hurlburt P2 Team collaborated with the Okaloosa County mulching facility to absorb 1,200 tons of scrap wood annually and provide free mulch and compost to Hurlburt personnel.

### GREEN PROCUREMENT

Hurlburt developed a cross-functional Green Procurement Team, plan, and base-specific instruction to ensure EO 13101 compliance. The first Green Procurement specification in the AF was instituted and included in all construction and service contracts. The spec was used as an example on the Air Force Center for Environmental Excellence (AFCEE) website.

Since 2002, all new projects at Hurlburt incorporate base Green Procurement specifications with more than 1,000 work orders reviewed for Green Procurement and recycling opportunities each year. Annually, the base trains more than 500 Government Purchase Card holders and billing officials, as well as base newcomers and first-term airmen, on the mandatory requirements of the AF Green Procurement guidance.

### EDUCATION, OUTREACH AND PARTNERING

Creative public involvement activities at Hurlburt promote the base population's interest as well as participation in P2 and recycling. Hurlburt staff also promotes stakeholder interaction through partnering with local and national entities.

Hurlburt launched a revolutionary new "Intro to HazWaste" briefing for new contractors and supervisors of IAP managers. The 4-hour class limits the base's liability—opening vital lines of communication with contractors to increase their sense of stewardship. The transferable concept of the briefings is suitable for transfer to all of the Department of Defense (DoD). In addition, environmental awareness briefings are provided each year to:

- Over 2,000 military and civilian personnel at the Commando Connection briefing and the Commando Pride Airman Center
- Squadrons across the base through 75 UECs trained as liaisons

- 1,000 Family Housing residents at Commando Agencies Reaching Everyone (CARE), a forum sponsored by the Family Support Center

An awareness booth at the annual Family Fun Fest educated more than 7,000 personnel and family members. Staff also spearheaded Hurlburt's largest-ever Earth Day event with 800 children and adult participants and eight local agencies.

The Hurlburt team sponsored a local 4th grade class in a statewide “Name the Recycle Guy” Contest. The winning entry gave the kids online publicity ([www.cleanup.org](http://www.cleanup.org)) with recycled t-shirts as prizes.

Hurlburt engineers and scientists take advantage of opportunities to educate at local schools by discussing topics such as environmental management careers during Career Day and groundwater protection, water conservation, and recycling during Earth Day visits. They also serve as invited speakers for community retiree groups and Okaloosa-Walton College continuing education courses.

A Hurlburt guest speaker discussed the success of Hurlburt's environmental awareness program as well as ways to build recycling participation, during the DoD technical session at the 2002 Solid Waste Association of North America (SWANA) Conference.

To encourage outreach and the transfer of success, the Hurlburt team serves as an active member of the Northwest Florida Pollution Prevention Partnership. The staff shares information on common issues, thus drawing from the experiences of regulators and industry representatives.

### GREEN BUILDING

Leadership in Energy and Environmental Design (LEED) ratings were performed for the new 505th Command and Control Wing Phase II and the command Weapons Instructor Course buildings. Further, the design solution for the Youth Center remodel project addressed sustainable design goals with the following LEED elements:

- *Sustainable Sites*: Erosion/Sedimentation Control, Reduced Site Disturbance, Stormwater Management, Light Pollution Reduction

- *Energy and Atmosphere*: ODS Reduction in Heating, Ventilation Air Conditioning and Refrigeration, Optimized Energy Performance, Elimination of hydrochlorofluorocarbons (HCFC) and Halon
- *Materials and Resources*: Storage/Collection of Recyclables, Construction Waste Management, Recycled Content, Local/Regional Materials
- *Indoor Environmental Quality (IEQ)*: Increased Ventilation Effectiveness, Low Emitting Materials, Controllability of Systems, Thermal Comfort

Xeriscaping is part of Hurlburt's master landscape and irrigation plans. All irrigation systems have rain sensors installed. Low-flow toilets and showers are utilized on all new projects and on numerous retrofits of older facilities.

### REDUCTIONS ACHIEVED

The Hurlburt Field P2 program profoundly impacts reduction of the Base's solid waste and hazardous waste streams and increases awareness of the significance of these reductions. Through persistent P2 and recycling efforts, Hurlburt Field earns revenues that benefit the entire base community. Since 2002, Hurlburt Field has:

- Eliminated all non-essential uses of EPA-17 chemicals and ODSs.
- Reduced chemical line items from 1,500 to 350.
- Diverted more than 45% of generated solid waste annually, saved more than \$500,000 a year, and exceeded the AF deadline 5 years ahead of schedule.
- Achieved reductions by doubling the amount recycled in only 4 years from 1,819,000 lbs in 2000 to 3,686,000 lbs in 2004.

The Hurlburt Field population has grown by 2,000 personnel and innumerable contractors over the past 2 years, yet diversion figures exceed an impressive 45%, largely due to continuing P2 education and outreach.

More than 8,000 base personnel strive to meet ever-changing AF mission requirements while safeguarding the environment and its resources. For the residents and employees of Hurlburt Field, every day is Earth Day.