

SUBMITTAL FOR  
2006 SECRETARY OF DEFENSE - NAVY  
POLLUTION PREVENTION - TEAM AWARD  
MARINE CORPS AIR STATION CHERRY POINT

**INTRODUCTION**

a. **Mission:** Marine Corps Air Station (MCAS) Cherry Point maintains and operates facilities and provides services and material to meet the operational requirements of the assigned tenants and commands. The missions of the major tenants that the Air Station hosts are as follows:

(1) The Second Marine Aircraft Wing (2d MAW). The supporting air component of Marine Forces, Atlantic, the mission of the aircraft wing is to conduct air operations to include offensive air support, antiair warfare, assault support, aerial reconnaissance including active and passive electronic countermeasures (EMC), and control of aircraft and missiles. As a collateral function, the wing may participate as an integral component of Naval aviation in the execution of such other Navy functions as the fleet commander may direct.

(2) The Naval Aviation Depot (NAVAVNDEPOT). Performs a complete range of depot level rework operations on designated weapons systems, accessories, and equipment. It manufactures parts and assemblies as required, provides engineering services in the development of changes in hardware design, and furnishes technical and other professional services on aircraft maintenance and logistics problems. This is the largest single-sited industry in eastern North Carolina, employing over 4,100 personnel.

(3) The Naval Hospital (NAVHOSP). Provides general clinical and hospitalization services to all armed services active duty and dependents, and other authorized persons. The hospital cooperates with military and civilian authorities in matters pertaining to health, sanitation, local disasters, and other emergencies.

b. **Environmental and Geographical Setting:** MCAS Cherry Point encompasses 11,485 acres and is located in the Coastal Plains area of eastern North Carolina, Craven County, approximately midway between New Bern and Morehead City. U.S. Highway 70 and NC Highway 101 provide highway access. The Air Station proper is located on a peninsula bounded on the north by the Neuse River, on the east by Hancock Creek, and on the west by Slocum Creek. The southern boundary borders on NC Highway 101. The Croatan National Forest is located adjacent to the Air Station boundary. In addition, the Air Station maintains three outlying airfields and two target complexes totaling 15,732 acres. The Air Station, 2d MAW, and its industrial tenant command, the NAVAVNDEPOT, have continued for more than a half-century to carve their places in history as service/industrial organizations that support the training and maintenance of our nation's sophisticated national defense machine. One might think of MCAS Cherry Point as being comparable to a small city with a large industry and an international airport (120,000 operations per year) populated by 10,000 marines and sailors, their 13,500 dependents, and more than 6,500 civilian employees for a total population of approximately 30,000.

**BACKGROUND**

a. Alicia Filzen, Physical Scientist – Environmental Affairs Department

b. Dave Cooke, Property Disposal Specialist – Environmental Affairs Department

c. Mike Robbins, Materials Examiner and Identifier – Environmental Affairs Department

## POSITION DESCRIPTION

Alicia Filzen works on issues dealing with solid waste, pollution prevention and the Comprehensive Environmental Training and Education Program (CETEP). Dave Cooke handles all of the recycling for the air station including the Qualified Recycling Program (QRP) and other pollution prevention initiatives, which also includes the Used Solvent Elimination (USE) Program and the Blending Facility Operations. Mike Robbins is involved with the collection and baling of recycled cardboard at the new Materials Recovery Facility located next to the Environmental Affairs Department building.

## AWARDS AND SERVICES

Recognition of past achievements in environmental stewardship is evidenced through receipt of the following awards. This record is evidence of our commitment to environmental excellence and demonstrates our innovative management approach.

<b>Date Received</b>	<b>Award</b>
2004	2003 Secretary of the Navy Pollution Prevention Award - Industrial Installation
2004	2003 Secretary of the Navy Environmental Cleanup Award - Installation
2004	2003 Secretary of the Navy Environmental Cleanup Award - Installation, Team
2005	2004 Secretary of the Navy Environmental Quality Award - Industrial Installation
2006	2005 Secretary of the Navy Pollution Prevention Award - Industrial Installation
2006	2005 Secretary of the Navy Environmental Cleanup Award – Installation

MCAS Cherry Point has excelled among DoD facilities by winning the Commander in Chief's Installation Excellence Award on seven occasions over the past 19 years since the award has been given, 1988, 1994, 1996, 1997, 1999, 2000 and 2003. This award is unique in that it provides a monetary award of \$200,000 which has been used for quality of life programs for the Marine and civilian work force. The \$1,400,000 received from this source has been utilized to improve the working and living environment aboard the Air Station. This prestigious award designation was the result of Cherry Point's sustained commitments in innovative recycling,



pollution prevention, and hazardous waste (HW) management programs. Furthermore, the EAD staff has received seven prestigious Commander in Chief's Awards for outstanding achievements by individuals. This record of previous achievement sets the stage for continuing efforts toward environmental quality.

Dave Cooke has been a member since 1988 of the Craven County Clean Sweep Committee, which works with recycling and beautification programs. He served as the Vice Chairman in 1991, was nominated Chairman in 1992 and elected Chairman in 1998 with this organization. He also serves as a member of the State/Military Environmental Issues Working Group on Pollution Prevention and is an active member in the National Recycling Coalition and the Carolina Recycling Association (CRA). He was a guest speaker at the CRA annual conference held in March 1993, and also at the Solid Waste Association of North America, North Carolina Chapter, annual meeting in June 1993; a session moderator at the CRA annual conference, March

1996; guest speaker at the Southeast Waste Exchange's Waste Minimization workshop, July 1996; appointed to the CRA's Education and Outreach Committee in July 1997; appointed as a judge for the 1997 Governor's Annual Awards for Excellence in Waste Reduction and Recycling Programs; speaker at the NC Division of Pollution Prevention and Environmental Assistance workshop on the use of re-refined motor oil, July 2001; speaker at the Guilford County and the city of Greensboro's Local Emergency Planning Committee (LEPC) Environmental Conference, September 2001.

Alicia Filzen serves as a member of the State/Military Environmental Issues Working Group on Pollution Prevention.

## ACCOMPLISHMENTS

### a. Waste Management and Resource Recovery:

(1) **Resource Recovery:** A Recycling Program was initiated at MCAS, Cherry Point in 1988, with the development of an infrastructure for an Industrial Qualified Recycling Program (QRP) to recycle commodities on a value priority basis. The Air Station has developed a recycling program for items such as steel, white and yellow metals, fired brass, high temperature alloys, waste oil, JP-4/JP-5 fuel, tires, batteries, and HM. By recycling more than 44 million pounds through the Defense Reutilization and Marketing Office, the QRP has generated over \$2.9 million in revenue for the Air Station since the programs inception. During FY05/06, over 7.3 million pounds were recovered and recycled, producing over \$867,216 in income for the Air Station. From March 1994 to August 1998, over \$845,000 has been provided to the MCCS Directorate for quality of life projects. The following projects are among some of what the QRP proceeds were used for: the purchase of a large tour bus, a recreational addition to Hancock Boating Marina, an outdoor entertainment stage, the purchase of carpet cleaners with cleaning fluids, locks, medicine cabinets for the troops in their new barracks, and picnic shelters.

The following is a summary of the more outstanding recycling savings and income achieved in the past 2 years:

**Qualified Recycling Program.** The recycling of steel, white and yellow metals, fired brass, high temperature alloys, tires, batteries, and miscellaneous items.

Pounds	Income	Cost avoidance
7,387,260	\$867,216.11	N/A

**Waste Oil Wealth Program.** The sale/donation of waste oil as a result of adoption of a program to source segregate chlorinated solvents from waste oil and resource recovery by burning waste oil in the central heating plant.

Gallons	Income	Cost avoidance
343,944	\$87,232.07	\$644,895.00

**Used Fuel.** The recycling of jet fuels and supplying fuels for burning at the Air Station main heating plant and training for Crash Crew.

Gallons	Income	Cost avoidance
319,308	N/A	\$1,269,710.49

**Used Solvent Elimination.** The removal and recycling of spent solvent from parts cleaning machines.

Gallons	Income	Cost avoidance
17,392	N/A	\$104,352.00

**Household Recycling Program.** The recycling of aluminum and steel beverage cans, glass and plastic containers, and newsprint; initially utilizing a drop-off type program and then adopting a curbside collection for 2840 base housing units.

Pounds	Income	Cost avoidance
568,620	N/A	\$42,646.50
<b>Wood Waste Recycling.</b> Wood wastes deposited into the construction debris landfill aboard the Air Station.		
Pounds	Income	Cost avoidance
8,038,000	N/A	\$136,646.00
<b>Total Income:</b>	<b>\$954,448</b>	<b>Total Cost Avoided Savings: \$2,198,250</b>

(2) **Toxic and Hazardous Material Management:** The Air Station has made significant progress in improved material management by creating and maintaining a *hazardous materials control center* (HMCC), which provides hazardous material (HM) management at all levels. The Supply Directorate consolidates all HM aboard the Air Station into one central warehouse. This has allowed the Supply Directorate HMCC to have complete control over procurement, issue, delivery, stocking, and reclamation of unused material. Services provided by the HMCC include shelf-life management, just-in-time procurement, and delivery and pickup of HM. Operation costs are limited to manpower, with no direct implementation or maintenance costs. The organizations taking advantage of this program include not only Cherry Point, but other military installations, so that excess material collected at MCAS, Cherry Point is advertised for reuse at MCAS Beaufort, SC and MCAS New River, NC. Actual cost savings for FY 05 and FY 06, for the reuse program are:

HM reissued by HMCC.....	\$155,875.
HM disposal cost avoidance.....	\$219,116.
Total cost avoidance .....	\$374,991.

**b. Pollution Prevention Initiatives:**

(1) **Blending Facility:** The annual demand for oil-based fuel at the Central Heating Plant (CHP) is approximately 1.4 million gallons. Since the recyclable petroleum can be made suitable for use at the central heating plant and the production rate is less than the demand, a viable alternative for the recycling of the blended recyclable petroleum is to use it as a fuel at the central heating plant.



The construction phase of the blending facility began in FY 2001 and was completed and a contract for the operation of the blending facility was awarded in FY 2003. By blending the recovered fuels, used oil, and used fuels, which amounts to 270,000 gallons per year, will save the Air Station \$237,600 per year. At this savings level, the investment for construction of the blending facility will have a payback period of less than 23 months. The first shipments of recycled used oil to the Blending Facility began in January 2004. A total of 185,095 gallons were delivered to the CHP for burning during FY 2005-2006. Thus saving \$285,309 in purchasing virgin heating oil for the Air Station's CHP. There has been an increase from \$.87 per gallon cost for #2 heating oil in FY 2004 to \$1.84 per gallon in FY 2006. This blending facility is the only one of its kind in the Marine Corps and is also unique in that the operation and burning includes recovered remediated JP-5 jet fuels.

(2) **The Minimizer® Reduces Waste Solvents by Over 95%:** DynCorp International is using a solvent reclamation unit to reclaim solvents in their waste paint sludge aboard the Air Station. The Safety-Kleen Minimizers provide customers a proven approach to



reducing paint waste and recycling thinner. This approach allows the user to save money on both product and compliance costs. Using a patented distillation process, the 18-Gallon Minimizer is ideal for commercial paint related markets such as automotive body shops as well as a variety of industrial solvent waste generators. It recycles lacquer thinner and paint waste as well as a variety of solvent that have a boiling point of less than 350 F, including Acetone, Xylene MEK, Toluene, Alcohol and many more. The waste removed in the process is reduced to a solid (referred to as a hockey puck) that is collected and picked up as part of the Safety-Kleen service. The Minimizer® Reduces Waste Solvents by Over 95%. Used paint thinner is automatically transferred to the Minimizer® and recycled from the paint. The fresh, clean thinner is transferred back to the Safety-Kleen Paint Gun Cleaner to be used again. The residue, consisting of paint solids, is a fraction of the original waste thinner volume which saves on thinner costs, waste costs, and significant waste minimization is achieved. At the current waste paint sludge generation rate by DynCorp, the Air Station will save approximately \$26,920 per year in sludge disposal and virgin solvent purchases.

(3) **Recharging Non-facility Fire Extinguishers:** The Air Station disposes of a large number of non-facility fire extinguishers. These fire extinguishers must meet the DRMO regulations for cylinder disposal (emptied of contents, valves removed and the container damaged to prevent reuse). This process is labor intensive, costly, may pose a health problem with exposure to dust, and when damaging the containers to prevent reuse. The Environmental Affairs Department and the Hazardous Materials Control Center has implemented a program to recharge, service and reissue fire extinguishers. The Air Station will avoid the disposal of used extinguishers and the need to purchase new replacements. As of to date the projected savings are approximately \$35,000 (Cost of recharging and servicing versus purchasing and disposal).



(4) **Reducing Solid Waste by Education:** Education is the key to the success of any environmental program. With this idea as its driving principle, MCAS Cherry Point's P2 team continued their comprehensive educational outreach program. The program has been an overwhelming success with the military and civilian personnel aboard the Air Station. This training has motivated personnel to recycle steel, plastic and glass containers, aluminum cans and cardboard. The program has made everyone aware of environmental issues and what they can contribute to protecting our environment. With the implementation of this program, the Air Station will avoid the cost of collecting, transporting and burying its solid waste in the regional landfill.



The team sponsored several events to promote environmental stewardship this Earth Day. They partnered with the Facilities Maintenance Department and Second Marine Aircraft Wing, Marine Aviation Logistics Squadron -14 Hazardous Material Control Center (MALS-14 HMCC) and Marine Wing Support Squadron 271(MWSS-271) to provide supplies and manpower to make "Operation Spring Cleanup" a success. MWSS-271 collected trash and debris along the shorelines while the Facilities Maintenance Department provided manpower to search for and collect miscellaneous solid waste items that were improperly disposed of throughout the installation. A highlight of these efforts was the removal of 5,000 pounds of tires from a former wooded area known for all terrain vehicle activity.

(5) **Fossil Dig for the Child Care Development Center:** As an outreach effort to younger generations, the P2 team teamed up with the MALS 14 – HMCC Marines to provide a fossil dig for the Child Care Development Center classes and Kindergarten classes at a local elementary school which included a discussion of Earth Day and environmental stewardship opportunities for the young citizens. Marl was provided by the PCS Phosphate Company in Aurora, NC. This material contains sharks teeth, fossilized seashells and bones. Mr. Rick Olsen, curator for the Aurora Fossil Museum, was present to help identify the various sharks teeth and items found. To wrap up “Operation Spring Cleanup” and Earth Day celebrations, Cherry Point’s P2 team coordinated a Qualified Recycling Program sponsored 5K fun run/walk that included 64 registered participants.



(6) **America Recycles Day:** America Recycles Day, a day dedicated nationally to raise awareness of and involvement in recycling, is November 15<sup>th</sup> of each year. To mark the day, the Cherry Point P2 team coordinated an effort to collect aluminum cans for the benefit of the Marine Corps Reserve sponsored “Toys for Tots” campaign. Participating organizations included MCAS Cherry Point Facilities Directorate, the Naval Aviation Depot (NADEP), and Marine Aircraft Group-14 (MAG-14). The can collection effort lasted several weeks and culminated in 5k fun run/walk on America Recycles Day itself.

By collecting aluminum cans at pre-established dropped off locations, we demonstrated the value and importance of recycling to the military community in addition to contributing to a good cause. The event was a success: 235 participants registered for the fun run and approximately 700 lbs of aluminum cans were collected, the proceeds from which will be donated to the Toys for Tots campaign.

### **Summary Narrative:**

MCAS Cherry Point is proud of its environmental stewardship. Our management accomplishments emphasize the mutually beneficial relationship between the Air Station, the surrounding communities, and the natural environment we share. Emphasis for the 2005 and 2006 Environmental Quality Program was founded on the development of innovative pollution prevention and comprehensive waste minimization and recycling initiatives.

During 2005-2006, environmental innovations and recycling initiatives have produced a grand total of **\$3,874,918** in income and cost avoidance. These programs have proven to be effective pollution prevention resources and waste reduction mechanisms for Marine Corps Air Station, Cherry Point.

By implementing proper and timely environmental management practices into hazardous waste/material control, pollution prevention measures, and recycling goals along with community involvement, we have saved significant funds, reduced environmental risks, improved processes, and at the same time enhanced our environment.

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