

**SECDEF / SECNAV FY2014 ENVIRONMENTAL AWARD NOMINATION NARRATIVE,
ENVIRONMENTAL QUALITY - INDUSTRIAL INSTALLATION
MARINE CORPS SUPPORT FACILITY BLOUNT ISLAND, JACKSONVILLE, FLORIDA**

INTRODUCTION

Mission. Marine Corps Support Facility Blount Island (MCSF-BI) is the Marine Corps Logistics Command's Executive Agent for the Marine Corps Prepositioning Programs. As the primary tenant, Blount Island Command (BIC) plans, coordinates, and executes the logistics efforts in support of the Maritime Prepositioning Ships (MPS) Program and the Marine Corps Prepositioning Program, Norway. The mission of BIC is focused on attainment, maintenance, and sustainment of all MPS and Norway requirements. MCSF-BI also provides technical assistance to Marine Expeditionary Force Commanders for all aspects of prepositioning, planning, and deployment. Our unique mission ensures the Maritime Prepositioning Force (MPF) is a global naval power projection asset that significantly supports the employment of Naval expeditionary forces.



INLS Causeway Ferry off loading activities at MCSF-BI

Population. MCSF-BI has a population of approximately 1137 service members, civilians, and contractor personnel. The installation houses several tenant organizations, including the Military Sealift Command and Naval Cargo Handling Battalion 11 (Naval Reserve), as well as the Aviation Ground Support Equipment, Marine Corps Maintenance Contractor, and Regional Base Operating Support contract organizations.



Aerial view of the installation highlighting (red lines) the main base and the DDA on the east side of the St. Johns River

Environmental Setting. MCSF-BI lies in the middle of the St. Johns River in Jacksonville, Florida, and covers 911.2 acres on the eastern half of Blount Island. A separate 325.8-acre dredge disposal area (DDA) is part of the MCSF-BI property and lies east of MCSF-BI, on the east bank of the St. Johns River. MCSF-BI is primarily a man-made island and was created through the placement of dredge material from the Dames Point-Fulton Cut shipping channel after World War II. Wetlands at MCSF-BI

consist of man-made stormwater management facilities and natural tidal marshes along the shoreline of the St. Johns River and in the tidal lagoon.

BACKGROUND

During FY2013 – FY2014, a number of projects were completed or implemented at MCSF-BI including the completion of construction of a state of the art paint and blast facility, an 8-station equipment wash-down facility, a 100,000 square foot environmentally-controlled

warehouse, diversion of tons of material from the local landfills, implementation of green procurement purchasing measures, energy reduction measures across the installation and new partnership opportunities with local, state and federal agencies. These impressive accomplishments took place in concert with Blount Island Command's global logistics and operational support activities at MCSF-BI. As an industrial installation, in FY2013-14, 11 ships were off-loaded and back-loaded, an estimated 250,000 pieces of equipment were refurbished, repaired, modernized or replaced during 45 to 65 day maintenance cycles. In addition, the installation supported two separate military training exercises in which Operating Forces from the Marine Corps and U.S. Navy trained for the employment of the Maritime Prepositioning Force. All the activities worked in concert with dynamic environmental quality efforts aimed at protecting the flora and fauna of MCSF-BI and the surrounding area, while still accomplishing the Marine Corps strategic prepositioning mission assigned to the installation. Below are a few examples of the success enjoyed by MCSF-BI and accomplished through the efforts of every employee aboard the installation.

SUMMARY OF ACCOMPLISHMENTS

Environmental Management System (EMS). MCSF-BI has two tenants and three contractors on the installation, which makes a robust Environmental Management System a must. MCSF-BI maintains a third party registered ISO 14001 EMS. The MCSF-BI staff have developed a cross functional EMS team with representatives from all the major tenants on the installation. The team meets weekly to discuss the status of the EMS and to suggest ways of improvement. MCSF-BI has established the following significant objectives and targets:



PDCA cycle

- ✓ Find alternative, more environmentally friendly paint products to replace 3% of existing paint products over baseline.
- ✓ Establish process to confirm environmental compliance is maintained on Construction and Demolition (C&D) projects and measures are taken to minimize C&D waste disposal. *In FY2013, MCSF-BI landfilled 549 tons and disposed of C&D 31.53 tons; and in FY2014, landfilled 358 tons and C&D 668 tons.*
- ✓ Review the hazardous material procurement process and update where needed to verify compatibility with the GCSS Supply system and achieve a 5% reduction on hazardous material approvals after the fact from CY2013 baseline. *During FY2013, MCSF-BI reduced hazmat from 36,380 products to 29,422 hazmat products stored onsite.*
- ✓ For vehicle maintenance activities, reduce used absorbent disposal tonnage by increasing the use of laundry shop towels and rags. *In FY2012, MCSF-BI disposed of 42 drums of pigmat; in FY2013, 49 drums; and in FY2014, 33 drums.*
- ✓ Reduce water usage through reducing wastewater disposal and minimizing water usage; target is to decrease amount of water sent offsite to the waste water treatment facility. *In FY2012, MCSF-BI sent 103,120 gallons of water offsite, in FY2013 88,950 gallons was sent offsite and in FY2014 the number was further reduced to 57,862 gallons.*

MCSF-BI developed and distributed Work Instructions outlining for employees the steps to follow to complete environmentally required tasks. These Work Instructions provide employees an easy template to go by in completing required tasks and ensures that tasks are completed correctly by different organizations. In addition, standardized inspection forms have been developed for use by the inspectors. Documents are labeled with the most current version and employees are instructed that the most current version of the documents are on SharePoint.

MCSF-BI conducts EMS awareness training to all employees on the installation. Additionally, each employee is provided with a policy card that states all the current EMS objectives and targets. The card serves as a reminder that continual improvement is the responsibility of everyone aboard the installation. MCSF-BI has developed Environmental Awareness booklets for contractors and a mandatory Contractor Service Agreement is included as part of every contract that clearly explains the environmental and safety expectations while performing work on MCSF-BI. The MCSF-BI staff has even included EMS awareness information on the back of the visitor passes so all visitors are aware of the installations aspects and impacts.

As a third-party registered ISO 14001 installation, the registrar conducts surveillance audits twice a year in addition to the USMC annual internal environmental compliance evaluation which includes the EMS program. This focus on the “checking” part of the EMS has resulted in **no Notices of Violations since 2008, and a reduction of HQMC ECE findings by 50%.** To close the cycle, management reviews with the Commanding Officer are conducted annually. Results are incorporated in EMS documents if required. The EMS impacts on the installation and environmental/operational issues is demonstrated in the following paragraphs.

Waste Reduction. MCSF-BI has diligently worked to meet and in most cases succeed against target waste metrics enumerated in the USMC Sustainability Plan, Executive Order (EO) 13514, and EO 13423. **In FY2012 MCSF-BI achieved a 73.21% diversion rate (not including C&D) and improved the diversion rate to a 96.15% diversion rate (not included C&D) in FY2013. This resulted in a savings of \$35,430.** This increase can be attributed to a mature Qualified Recycling Program and innovative ways of recycling. In addition to recycling typical items like used oil, paper, cardboard, plastics, metals, wood, batteries, and antifreeze. MCSF-BI also donated excess serviceable materials to other DoD organization and to local organizations such as Boy Scouts and the Fire Department rather than disposing of them. In FY2014, MCSF-BI donated two mobile administration trailers to the local sheriff’s department. The weight of each was 28,560 pounds; the saving disposal of each trailer was \$2,028. **Through**



MCSF-BI Sustainability Scorecard from Sustainability Plan



Donated mobile home on the move

the efforts of MCSF-BI personnel to identify outlets to recycle unused, but outdated materials, the number of containers diverted from the waste stream in FY 2013 was 201 and in FY2014 the number increased to 866 containers. In FY2013, MCSF-BI finalized its Sustainability Plan to assist in meeting federal, United States Department of Defense, and Navy/Marine Corps sustainability mandates by defining implementation strategies, policies, projects, and other methods to achieve the mandates. The Plan serves as a roadmap to identify ways to efficiently utilize mission critical

resources such as energy, fuel, water, equipment, land, and facilities, while enhancing the mission requirements and provides a baseline inventory and/or data gap analysis against target metrics enumerated in the Draft 2011 United States Marine Corps Sustainability Plan. A Sustainability Target Scorecard was developed that shows each of the target metrics, whether MCSF-BI is meeting the target, and if not, whether MCSF-BI is on track to meet the target. MCSF-BI created a Sustainability Executive Committee comprised of representatives from various installation organizations to share ideas, track progress, and discuss opportunities based on the Sustainability Target Scorecard. By FY2012, MCSF-BI met 12 out of the 22 targets outlined in the Draft 2011 United States Marine Corps Sustainability Plan.

Energy Reduction. In FY2014, a new 46,226-square-foot Paint and Blast Facility was installed to process all retrograde vehicles from conflict areas. The facility included high bay areas sized to move the largest piece of equipment (lighterage) through the building using a crawler type vehicle. The building houses blast, paint, and cure booths each separated with integral booth closure doors. The blast, paint, and cure booths are capable of being further subdivided to process smaller vehicles and equipment with internal doors similar to the booth closure doors.

The traditional method of drying and curing paint coatings with ovens was considered during the development of the new Paint and Blast Facility, but was determined to be impractical because of the large fuel demand. By installing a closed loop dehumidification system that dries with low temperatures, eliminates the need for large ovens, **has zero emissions, and greatly reduces operational costs**, the Paint and Blast Facility has



New Paint and Blast Facility at MCSF-BI

a 41.6% energy improvement over the former paint booth. The newly constructed facility is certified by the USGBC as having met all LEED-NC (New Construction and Major Renovations) requirements.

MCSF-BI implemented a number of other energy reducing measures and garnered large savings as a result. By the end of FY2012, the installation energy intensity was about 45 percent below the FY2003 baseline DoD goal of 37.5 percent by FY2020 or at approximately 28 million British thermal units per thousand square feet (MBtu/ksf), compared to the baseline of 50.8 MBtu/ksf. **Specifically during the timeframe for these award achievements, MCSF-BI was already exceeding energy goals and continued to reduce energy consumption an additional**

23 percent. In FY2014, due to efforts by the proactive Resource Efficiency Manager (REM), an annual energy savings of \$50,114 was realized and a reduction in greenhouse gas emissions of 9,263 tons of carbon dioxide, 25 tons of sulfur dioxide, and 15 tons of nitrous oxides were gleaned from the implementation of energy usage reduction measures. Examples of energy reduction projects varied from simple setting of operational schedules for building heating and cooling systems to replacement of inefficient HVAC systems.

ENVIRONMENTAL COMPLIANCE EVALUATIONS (ECE) AND PROGRAM MANAGEMENT

ECE Assessments. MCSF-BI participates in the triennial HQMC ECEs along with conducting annual internal ECEs. Our self-audit program includes the self-audit, the audit approach, how audit findings and corrective actions will be tracked, and an assessment of the installation's EMS against Chapter 2 of the MCO 5090.2A. Self-audits follow the requirements outlined in Chapter 4 of the MCO 5090.2A. In addition to formal external and internal ECE's, MCSF-BI personnel conduct regular inspections and walk-throughs of facilities ensuring the "check" portion of the EMS is a top priority for the installation. As noted earlier, the success of the ECE assessments has resulted in a reduction of HQMC ECE findings by 50%.

Environmental Program Management. MCSF-BI provides oversight and management to all environmental programs through the efforts of three employees and one onsite contractor. To meet the requirements of the specific programs and not impact the mission tempo requires a partnership of shared dedication by this small group. Through the internal working partnership several initiatives have been implemented to reduce waste and lower costs for the installation. A Fuel Filtration/Additive Unit has been put in operation to recycle JP-5 at a cost savings of \$18,092 per ship or approximately \$108,522 for the year. A new Antifreeze Recycler was purchased and will be operational in 2015. In 2014, MCSF-BI purchased 1,930 gallons of antifreeze at an average cost of \$10 per gallon. The recycling unit will lower the cost to \$5 per gallon, essentially cutting in half the costs of antifreeze purchases, and will pay back purchase costs in the first year of use.

MCSF-BI holds a Title V air permit, is a Large Quantity Generator for Hazardous Waste, and maintains compliance with the State of Florida Multi-Sector Generic Permit for Stormwater Discharge Associated with Industrial Activity. MCSF-BI installed automatic stormwater samplers that automatically detect when a qualifying rain event occurs and then collect the composite sample. These automatic samplers reduce the required manpower to stay in compliance with permit requirements. MCSF-BI purchases drinking water from the local authority and is not required to conduct testing of the drinking water. However, in the interest of human health, MCSF-BI voluntarily conducts sampling of drinking water against primary and secondary standards every 2 years, perchlorate sampling annually, and lead and copper twice a year.

MCSF-BI developed a Green Procurement Plan (GPP) and Chemical Approval Process to verify that environmentally friendlier products have been identified for purchase. A GPP flip chart was developed for use by contracting personnel. For example, automation of the Green Procurement Reporting System was an initiative early in FY2013. A unique Comprehensive Procurement Guideline (CPG) code was assigned to each part number associated with the Green Procurement Program. These unique codes allowed for reports to be run for all part number procurements that were associated with Affirmative Procurement Program guidelines.

This saved time, and improved accuracy and allowed for automated reports. One contractor procurement department consolidated 12 trash cans assigned to the department to one trash can. This eliminated 11 trash bags per day from going in a land fill and reduced a janitorial time emptying 11 extra partially filled trash cans. Additionally, the initiative helped eliminate insect problems in the building. The simple initiative saved time, money, eliminated insect sprays, and ergonomically, forces an employee to take 30 seconds to walk to the centrally located trash can giving them a moments of exercise from long durations of sitting at a computer console.

The largest hazardous waste stream at MCSF-BI is the disposal of off-specification material. To reduce the amount of this material being disposed of as hazardous waste, MCSF-BI developed a Hazardous Material Management Plan in FY2013. The intent of this HMMP is to compile Work Instructions, unwritten procedures, and regulatory requirements in a way that can function, not only as a guidance document for HM operations and handling at MCSF-BI, but can also serve to measure program success towards Installation safety and efficiency objectives. MCSF-BI maintains Authorized Use Lists and a chemical approval process using SharePoint.

Community Relations. MCSF-BI is located in a wide range of urban development and relatively natural areas. As Jacksonville continues to grow, the urban development will not diminish. However, the Nassau River/St. Johns River Marshes Aquatic Preserve lies to the east and north of MCSF-BI. The E. Dale Joiner Nature Preserve is north of MCSF-BI and the Pumpkin Hill Creek Preserve State Park is north of the nature preserve. Multiple Florida Forever Board of Trustees conservation projects are also located in the vicinity. While primarily an industrial installation, MCSF-BI personnel diligently not only work to exceed environmental compliance requirements, but also to protect and promote the natural resources on the island. With these elements in place, MCSF-BI enjoys abundant opportunities to partner with the community on and off the installation. Listed below are a few examples of the community relations successes.



Example of the amount and types of debris gathered during the annual cleanup activity

Shoreline Cleanup: The St. Johns River shoreline at MCSF-BI is mostly undeveloped and extends about 3 linear miles. The shoreline typically includes a zone of emergent tidal marsh vegetation adjacent to the river, which varies in width from a few feet to 50 to 100 feet in some areas. Since 2008, MCSF-BI has conducted a cleanup campaign to remove trash and debris from the St. Johns River shoreline. **In 2014 alone, the shoreline cleanup resulted in the recycling of 2,500 pounds of wood and filled a 15-cubic-yard roll-off container with an estimated 3.5 tons of solid waste.** MCSF-BI conducts the annual shoreline cleanup on Earth Day and enlists the support of on-base personnel to pick up debris along the shoreline. Local Boy Scout

troops camp on the installation and participate in the cleanup day as well. This cooperative program improves aesthetics for both base personnel and the community at large, including boaters and homeowners along the St. Johns River. Another benefit for base personnel and the community is the promotion of environmental stewardship and awareness of where trash and debris are deposited in the natural environment. Finally, salt marsh vegetation along the shoreline benefits from the removal of debris and potential contaminants.



Rare Prairie Warbler observed during May 2014 bird survey

Community Partnerships: MCSF-BI has many community partners. As part of our Integrated Natural Resources Management Plan (INRMP), a 1-day INRMP Review is conducted at MCSF-BI each May with state and federal natural resource management agencies. The purpose of the meeting is to review the INRMP implementation for the previous year and to discuss future natural resource initiatives. Typical participants include the United States Fish and Wildlife Service and the Florida Fish and Wildlife Conservation Commission. Results of natural resource surveys, initiatives, habitat enhancements, Florida Natural

Areas Inventory Reporting, and MCSF-BI personnel environmental training are reviewed, and recommendations for ongoing and future natural resource activities are discussed. The INRMP is updated, if required.

MCSF-BI also welcomes Audubon Society members to conduct surveys on the installation and hosts a Boy Scout camping event each year in April. Although not required, MCSF-BI conducts several bird and animal surveys at the installation, including regular surveys of migratory birds, breeding birds, shorebirds, alligators, gopher tortoises, and invasive and exotic plants. Bird survey results are entered into the Cornell e-Bird database and the Florida Shorebird Database to allow researchers, managers, conservationists, and permit reviewers to use the information to help conserve shorebirds and seabirds.

MCSF-BI also coordinates natural resource data with the Florida Natural Areas Inventory, a non-profit organization that disseminates information critical to the conservation of Florida's biological diversity. MCSF-BI personnel are members of local environmental groups such as the Coastal Wildlife Conservation Initiative for Northeast Florida and the Jacksonville Spillage Cooperative.



Florida Shorebird Database homepage

Additional innovative community partnership activities include having the Troop 2 Boy Scouts onsite to police the facility and in less than 1 hour rounded up 600 pounds of solid waste, 400 pounds of wood, 5 pounds of aluminum cans, and five tires. During Earth Week, MCSF-BI added catch-and-release fishing from Pond B to free fish that enter into the retention ponds. In FY2014, 35 Boy Scouts and 10 adults participated in the catch and release fishing event.



E-Waste Day activities at MCSF-BI

MCSF-BI provides opportunities for the internal community to participate in environmental activities. In FY2014, a mobile shredder was brought onsite to shred documents from employees' homes and work areas. A total of 2,000 pounds was shredded in 2 hours. Lastly, E-Waste Day allows employees to bring household e-waste onsite for MCSF-BI to recycle. In FY2014, MCSF-BI collected 13,271 pounds of e-waste in less than 3 hours.