



Robins Air Force Base (AFB) is located on 8,435 acres in Middle Georgia adjacent to the City of Warner Robins. Robins AFB neighbors thousands of acres of wetlands that create a natural buffer for the base, effectively eliminating encroachment. Over 25,000 employees work at Robins making it the largest industrial facility in the State of Georgia with an annual 4.3 billion dollar economic impact across the state.

The base is home to the Warner Robins Air Logistics Center, four Wings and 39 Associate Units that make up an integral part of the U.S. Air Force (AF) war fighting team. Robins AFB, along with the greater community of Middle Georgia, make up Team Robins Plus. This partnership is dedicated to protecting the environment while providing affordable combat superiority, readiness, and sustainability to the war fighter. Robins AFB has enjoyed unprecedented support from the surrounding communities since its humble beginnings in 1941. Community members perpetually live their motto EDIMGIAFAD (Every Day in Middle Georgia is Armed Forces Appreciation Day).

The base has incredible diversity in missions, ranging from operational flying wings to specialized support services. As one of the three air logistics centers in the AF, Robins AFB is responsible for programmed depot maintenance for the C-5, C-17, C-130, and F-15 aircraft, while continuing to expand missions and plan for the future. In order to meet changing needs, Robins AFB adopted an innovative and evolving Environmental Management System (EMS) that focuses on further developing and maintaining an environmentally sustainable “green” base for the future.

Robins AFB created a focused, leadership-driven EMS by incorporating the existing environmental programs into an integrated management system. The EMS effectively meets mission objectives while ensuring compliance with Federal, State, and local environmental laws and regulations. The base has integrated environmental accountability into day-to-day decision making and long-term planning down to the shop level. Employees work together to reduce new environmental risks and to strengthen the lines of communication. All Robins AFB employees are committed to environmental excellence, the stewardship of community resources, and sustainability of base and center operations by implementing the following Environmental Policy:

**SET OBJECTIVES:** We will fulfill or exceed our environmental objectives to improve operational readiness.

**OBEY REQUIREMENTS:** We will comply with environmental regulations while reducing compliance costs and liabilities.

**ACHIEVE IMPROVEMENTS:** We will continuously improve our programs, processes, and systems.

**REDUCE POLLUTION:** We will reduce or eliminate the use of hazardous materials and pollutants, purchase environmentally preferable products and services, while encouraging recycling.

Environmental Management (EM) not only ensures regulatory compliance, but also verifies that process operations do not adversely affect the worker’s safety or work environment. The EMS was expanded to integrate safety and occupational health principles into the existing EMS

structure to develop an Environmental, Safety, and Occupational Health Management System (ESOHMS). In an effort to further develop an ESOHMS, joint inspections incorporating environmental, safety, and occupational health (ESOH) concerns have been implemented. These integrated inspections have resulted in decreased paperwork, reduced inspection scheduling issues, and minimized interruption/work stoppage of production personnel. Robins AFB also chartered an ESOH Board (ESOHB) to oversee all ESOH-related activities. The ESOHB, with the help of over 100 Unit Environmental Coordinators (UECs), was instrumental in winning the commitment of the entire workforce in managing compliance.

Continual improvement of the EMS is driven by establishing objectives and implementing measures to achieve targets that are related to significant environmental aspects identified at the base. Environmental burden and risk rankings from the Compliance Site Inventory (CSI) Database are used to identify and prioritize environmental aspects and impacts to determine which are significant. Objectives and targets are identified for environmental aspects based upon aspect priority, opportunities for improvement related to the aspect, and feasibility of achieving the potential target. Robins AFB objectives and targets align directly with the goals set forth in Executive Order 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*.

#### THE SUCCESS OF ROBINS AFB EMS IS SUMMARIZED BY THE FOLLOWING MEASURES:

- ➔ On site composting facility – 100% yard and horse stable waste composted and used for base landscaping projects, saving \$230K in disposal costs!
- ➔ Recycled 10 tons of printer/toner cartridges and 3.5 tons of electronic equipment, resulting in a savings of \$3K in disposal costs.
- ➔ Diverted 15,040 tons of construction and demolition (C&D) and 5,627 tons of non-C&D solid waste for a total of 20,667 tons from the landfill. Cost savings from recycling had a total lifecycle cost avoidance of \$1.3M.
- ➔ Recycled over 1,000 fluorescent light bulbs and 100% of the appliances, doors, and cabinets from the 2007 military family housing demolition project.
- ➔ Achieved 96% basewide reduction in cyanide compounds, 66% reduction in sodium hydroxide, 43% reduction in sulfur dioxide, 38% reduction in ethyl benzene, 37% reduction in trichloroethylene, and 34% reduction in xylene emissions from multiple process improvements.
- ➔ Increased number of Environmental Awareness displays, booths, and exhibits effectively reaching over 90% of the base populace.
- ➔ Partnered with the Georgia Clean Air Campaign and the Georgia Department of Transportation to initiate carpooling on Robins AFB. Over 1,500 base personnel filed RideMatch applications. Nearly 1,100 trips were logged, saving a collective \$17K for employees in fuel costs.
- ➔ Eliminated a Class II Ozone Depleting Substance (ODS), HCFC-141b, and replaced with a non-ODS solvent in the Low Altitude Navigation and Targeting Infrared for Night (LANTIRN) pod cleaning.
- ➔ Reduced hazardous material solvent usage 83% through the use of innovative new spray gun cleaning systems. Eliminated "one-time use" solvents, reducing hazardous material purchases and hazardous waste disposal.
- ➔ Decreased the usage of petroleum products with the purchase of over 110,000 gallons of biodiesel.

An invaluable aspect in the sustainment and progression of Robins AFB EMS is the well-established compliance assessment program. Robins AFB conducts annual ESOH Compliance Assessment and Management Program (ESOHCAMP) assessments and year-round basewide

compliance inspections. A full EMS module has been added to the audit criteria for use in ESOHCAMP assessments. The assessment program is key to maintaining basewide environmental regulatory and EMS compliance as well as looking for opportunities for environmental improvements.

Robins AFB records and tracks all findings from inspections and assessments in a web-based Environmental Findings Database (EFD), which is accessible by environmental program managers and UECs on the installation. Findings are tracked until closure, ensuring Management Action Plans are developed to properly address the root cause of the findings. Follow-up inspections occur on a regular basis to ensure findings are corrected. By consolidating all findings into one system, the data can be manipulated easily to analyze trends and identify systemic root causes. Compliance monitoring, stringent ESOHCAMP assessments, and hands-on education are critical to ensuring the base's regulatory compliance.

The base requires that environmental factors are considered in all acquisitions with preference given to products and services designated by or recommended in Federal green purchasing preference programs. Robins AFB Green Procurement Program (GPP) was implemented in 2007 to ensure specific EMS regulatory requirements associated with the purchase of new materials, products, or services are met. In order to make GPP visible, a website was developed offering GPP guidance, training, and resources. Robins GPP training was administered to all personnel involved in the acquisition process ahead of formalized AF training requirements. The training afforded personnel with knowledge and resources to ensure compliance with GPP. The purchase of items with recycled content has increased from \$154K in 2002 to \$439K in 2007.

Going beyond setting targets to improve current processes, Robins AFB has targeted "green" designs for new processes and facilities. Environmental cost benefit analysis and life cycle assessments start in the design phase in order to receive maximum benefit and include all phases of the building. An Aircraft Corrosion Control Hangar was designed to minimize environmental impact during both construction and operation. The hangar optimizes the paint removal and application process for C-5, C-17, and C-130 aircraft with the transition from chemical strippers



to recyclable plastic media blast, eliminating 12 tons of volatile organic compounds per year. The hangar is also designed to re-circulate internal ambient air while maintaining safe and appropriate environmental, safety, and health conditions. Eighty percent of the conditioned air is re-circulated and reused, reducing peak electrical demand for cooling from 6 to 1.5 megawatts. It also reduces peak gas demand for

heating and humidification from nearly 200,000 to less than 50,000 cubic feet per hour. This innovative air recirculation project was the first in the AF and was recognized by the Federal Energy Management Program. The project also diverted 99% of the C&D waste generated, saving \$2.4M in disposal costs and earning over \$145K in recycling proceeds.

In an effort to meet renewable energy purchase goals, the Base Utility Management Office signed a three-year contract with Georgia Power to provide three percent of the base's annual kilowatt-hour consumption as Green Energy. The base began its purchases of Green Energy in April 2007 with a commitment to purchase more than 40 percent of the company's current renewable energy supply.

A fundamental part of the Robins AFB EMS is supporting the base environmental education and awareness programs. EM partnered with the Base Education Office to provide local

environmental awareness training for all newcomers. An interactive EMS website was designed to keep the base and public informed about EMS activities and serve as the hub for information exchange. EM also developed base-specific EMS awareness training, available on the website. This training provides an overview of the EMS, communicates individual roles and responsibilities, and gives specific examples of how the mission affects the environment. An environmental training matrix was forwarded to the Education Office to ensure the base population received all mandatory environmental training. Objectives, targets, aspects and impacts are identified on the and available on the EMS website.

The base places an emphasis on public awareness programs to foster environmental awareness on the installation as well as within the surrounding community. Robins AFB is highly involved in the community through participation in a number of outreach programs. These programs include illustrative newspaper articles, informative museum displays, diverse educational events, and participation on community boards and development committees. The base has participated in groups such as the Keep



Recycling Display

Warner Robins Beautiful Committee, the Middle Georgia Clean Cities Coalition, and



Historic Tree Planting Ceremony

the Middle Georgia Clean Air Coalition for many years. Robins AFB Environmental Advisory Board (EAB) provides a forum for community review, comment, and input on current and proposed actions associated with environmental programs at the Base. Robins AFB EAB has been hailed by Region IV US EPA for ..."their commitment toward achieving environmental goals

through technological excellence and effective partnering." In addition, the base has been recognized as a Tree City USA for 14 years by the National Arbor Day Foundation. Robins AFB provided the local community with a variety of Earth Day activities, including environmental awareness displays, Wellston Trail Greenway Clean Up, landscaping projects, school art contests, bird watching, and an electronics recycling drive. Robins AFB partnered with the Middle Georgia Regional Development Center and the Central Georgia Rivers Partnership to increase awareness about unique archaeological sites and historic structures. The base also teamed with the Robins AFB Museum of Aviation to host and staff the Native American exhibit, "Windows to a Distant Past," the story of the early native peoples who inhabited the land currently occupied by Robins AFB.

Robins AFB takes the opportunity to lead by example while achieving environmental excellence through continual basewide EMS integration. Working together alongside regulators and community organizations, Robins AFB is dedicated to protecting the environment while providing affordable combat superiority, readiness, and sustainability to our customer, the warfighter.