2024 Secretary of Defense

Environmental Awards

Environmental Quality, Non-Industrial Installation
Eglin Air Force Base

Introduction

Situated along the Emerald Coast and extending into the heart of Florida's panhandle, Eglin Air Force Base (Eglin) is home to the 96th Test Wing, responsible for the development, acquisition, testing, deployment, and sustainment of all air-delivered conventional weapons. Eglin is the Department of the Air Force's (DAF) largest installation and stretches into four counties, encompassing 464,000 acres of land ranges, 123,000 square miles of water ranges, and 153 miles of shoreline. The Eglin reservation is adjacent to the Gulf of Mexico and has more than 50 distinct test areas and 440+ tactical training areas. This unique setting and overwater airspace combine to provide a sea-to-land transition area—a vital resource for modern weapons system testing, as well as an environmental challenge that Eglin continually meets. The 96th Test Wing hosts 9 wing/wing equivalents and 35 associate units that accomplish their missions while maintaining a symbiotic relationship with 306 rare and protected plant and animal species. Eglin ensures access to 250,000 acres of its reservation for public recreation while safeguarding mission availability. The total workforce population is 20,506, including 9,680 military personnel, and 10,826 civilians and contractors. Eglin's annual economic impact on the local community is $9.2B.

Background

Eglin's 96th Civil Engineer Group, Environmental Management Branch preserves a remarkable assemblage of

biodiversity, from the old growth long leaf pine forest to pristine barrier islands, while providing a proving ground to deliver weapons to the warfighter. The Branch consists of 48 engineers, scientists, biologists, archeologists, foresters, forestry technicians, and environmental protection specialists from three sections: Environmental Compliance, Natural Resources Management, and Environmental Assets, which includes Cultural Resource Management and Environmental Planning. This environmental quality team, along with the installation's 115 commander-appointed Unit Environmental Coordinators (UECs), drove continual improvement using its highly rated Environmental Management System (EMS) that identified the most significant environmental aspects threatening the success of the mission and environment. The team developed and tracked action plans for stationary internal combustion engines maintenance, prevention of erosion at cultural sites, and hazardous material data accuracy resulting in reduced risk. The team doubled down and committed to enabling Department of Defense (DoD) missions while protecting one of the biggest natural infrastructure portfolios in DoD as mission activities drove a challenging 45 percent jump in environmental impact analyses requests from FY22 to FY23.

Active use of a robust internal self-inspection program as an accountability measure guided the identification and correction of issues yielding ZERO enforcement actions after regulatory inspection of 108 sites. Environmental awareness is amplified through weekly outreach to 20,000 installation workforce by conveying relevant environmental information. Monthly specialized training to 115 UECs across 54 organizations reinforced accountability measures and kept UECs engaged.

The EMS program manager secured funding to produce a new General Awareness Training video that reduced training time by 50 percent and saved 255 annual manhours across the installation. Awareness training has reduced environmental compliance risk as demonstrated by inspection results and allowed for more focus on the primary DAF and DoD missions.

The environmental quality team successfully managed 229 permits and 115 tank registrations. Program managers ensured up to date content and implementation of 12 installation-level management plans. Key plans included Hazardous Waste, Cultural Resources, Natural Resources, Solid Waste, Stormwater Pollution Prevention, Hazardous Material Emergency Planning and Response Plan, Environmental Protection Agency Facility Response Plan, and United States Coast Guard (USCG) Facility Response Plan.

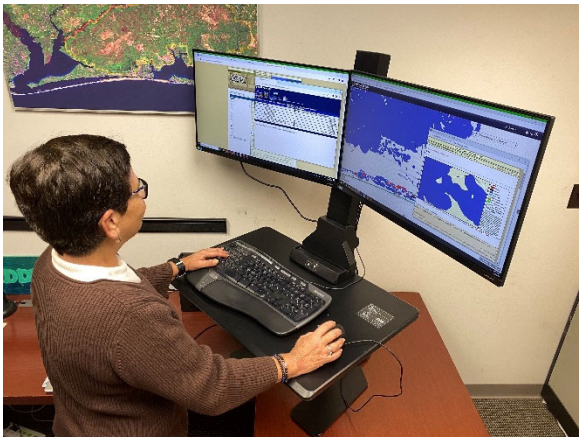
One key to Eglin's success has been the pursuit and formation of multiple partnerships with local, state, and federal entities to advocate for the military mission, accelerate decisions, and share lessons learned with others. Most notable is a biannual partnering meeting with the Florida Department of Environmental Protection (FDEP) and other surrounding DAF and Navy installations. Serving as the DoD lead for agenda items, Eglin drove timely discussions and fostered important relationships with FDEP. Eglin's environmental efforts garnered the 2022 FDEP Northwest District Outstanding Environmental Stewardship award.

Accomplishments

EQ in Installation Decisions and Asset Management

Eglin used technical innovation, strong inter-office coordination and regulatory expertise to integrate and address environmental issues within decision making and asset management as a Major Range Test and Facility Base (MRTFB) and home to multiple training missions. MRTFBs are the designated core set of DoD Test and Evaluation (T&E) infrastructure and associated workforce that

must be preserved as a national asset to provide T&E capabilities to support the DoD acquisition system. To better ensure robust project planning and rapid mission execution by mitigating environmental restrictions and sensitive areas highlighted through an embedded map viewer, the innovative web-based Environmental Restrictions Tracking Tool (ERTT) was integrated with the Air Force (AF) Form 813 environmental analysis process to increase site access. Thirty-four organizations used the ERTT for robust mission planning on the front end and reduced time to evaluate and process requested mission actions.



ERTT in Action
Environmental Restrictions Tracking Tool (ERTT) web-based map depicts restriction layers for a proposed mission location. The Tool provides mission planners the opportunity to see potential restrictions early-on and select the optimal location and timing.

The Environmental Planning Office (EPO) authored an in-house environmental assessment (EA) supporting Headquarters DAF's activation of the 350th Spectrum Warfare Wing and saved $200,000 in costs. The Air and Energy Programs proactively coordinated in reviewing potential energy resiliency and cost savings projects involving engines, ensuring the consideration of hazardous air pollutant emission limits, potential regulatory burden, fees, and mitigations during project development. The Air Program obtained an airconstruction permit to increase the annual natural gas fuel limit by 26.5 million standard cubic feet per year for three Energy Saving Performance Contract engine-generator sets. The increase maximized annual run time, enhanced operational flexibility, and saved $150,000 per year in additional energy costs. These engines are included in Eglin's nearly 3,000 air emissions sources, which were successfully managed under a Title V Air Operation Permit with no enforcement actions received from annual regulatory inspections. A robust environmental compliance monitoring program for 747 privatized housing units and 986 acres was established ensuring compliance of the dynamic activities associated with the residents and the housing lessee.

Environmental Management

Water Management

Eglin, including a fuel barge offloading operation, is adjacent to multiple bodies of water that ultimately connect with the Choctawhatchee Bay. To ensure complete fuel spill response capabilities are ready at a moment's notice, Eglin led the largest multiagency spill training exercise ever undertaken at the installation. Over 100 individuals from Eglin, the Air Force Civil Engineer Center (AFCEC), USCG, U.S. Army 7th Special Forces Group, an oil spill and response contractor, FDEP, and the Okaloosa County Health Department and Emergency Management participated.

Boom Deployment
Eglin responders pull boom as part of the largest multiagency spill exercise ever undertaken by the base.

Over 6,000-feet of oil containment boom was deployed by boat and two oil skimmers were deployed once the boom was in place. The

exercise successfully demonstrated Eglin's response capabilities, accomplished needed training for USCG personnel, and strengthened regional interagency, including local County cooperation and preparation.

As Eglin rapidly ramped up mission efforts to meet rising threats from potential adversaries, the Water Quality Program skillfully facilitated water permitting for 15 active Army Corps of Engineers construction projects valued at $629M. Expertise in the understanding and execution of the permitting process and strong relations with FDEP have resulted in zero project delays due to water permitting, expediting mission execution. The Water Quality Program developed a new Municipal Separate Storm Sewer System permit to meet new regulatory requirements. Fifty-six best management practice factors were established emphasizing reducing illicit discharges, better educating the community, and mitigating water pollution.

Hazardous Waste and Hazardous Materials Management

The Hazardous Waste (HW) Program expertly renewed a Resource Conservation and Recovery Act Subpart X permit for Open Detonation (OD) of unserviceable munitions and Research, Development, Test and Evaluation (RDT&E) reactive wastes. Complex regulatory and community interest group challenges were resolved securing continued operation of the OD unit, avoiding more than $25M in off-site treatment costs for the disposal of munitions and reactive materials. Additionally, lessons learned, successful approaches, and proactive observations on potential future regulations were shared with AFCEC Subject Matter Experts, Headquarters-level legal counsel, and a DoD working group to leverage within the DAF and DoD. In addition to permitting efforts, the HW Program implemented innovative one-time comprehensive groundwater sampling at the OD site, avoiding the installation of permanent monitoring wells, saving $375,000 and preventing reduced Test Area footprint. Skillful negotiations with FDEP established an alternate soils disposal method from an Army Corps of Engineers project and reduced estimated disposal costs from $1M to $200,000.

Tarp Placement/Detonation Preparation
Hazardous Waste Program Managers deploy a tarp at the OD unit area as part of an innovative methodology to monitor and document post-detonation debris fallout.

The Hazardous Material Program completed an Environmental Action Plan that eliminated tracking system entries utilizing seven-plus year-old Safety Data Sheets/Material Safety Data Sheets nine months ahead of schedule, reducing the potential risk for violations.

Integrated Solid Waste Management Program

Following a two-week solid waste characterization study that showed recyclables were being thrown into the trash, Eglin's Solid Waste Program manager jumped on this opportunity for improvement and launched an awareness campaign to reduce waste and keep recyclables out of the waste stream. The Environmental Compliance office conducted 50 outreach actions, including installation bulletin announcements, UEC briefings, senior leadership meeting presentations, displays at the Base Exchange, handouts, website postings, and emails to facility managers. The campaign identified and targeted key diversion opportunities, including cardboard, paper, and scrap metal, which resulted in surpassing the DoD diversion goal for municipal solid waste by 16

percent in FY22 and 23 percent in FY23. Eglin developed agreements with vendors to recycle 14 tons of used cooking oil into biodiesel at no cost. The Qualified Recycling Program (QRP) collected and recycled over 1,300 tons of materials from 1,080 collection points and 95 cardboard dumpsters. Because Recycling Center personnel managed a convenient central location for all Wing units and mission partners to drop off 51,331 gallons of used oil to be sold, the need for individual organizations to set up and manage their own pickups was eliminated, keeping focus on the mission. The QRP generated $234,000 to sustain in-house recycling operations, and averted $221,000 in disposal costs, minimizing wastes going to landfill.

National Environmental Policy Act (NEPA)

The EPO reviewed over 3,000 project submittals for compliance with NEPA, Endangered Species Act (ESA), National Historic Preservation Act (NHPA), Clean Water Act, and other environmental directives and ensured zero negative mission impacts. They, along with a 17-member multi-disciplinary team, analyzed over 1,300 AF Forms 813 with an average turnaround time of 6.63 days per review while successfully completing additional analysis for 31 AF Forms 813 requiring ESA and NHPA consultations. The average turnaround time and additional analysis were achieved despite an unprecedented influx of 600 AF Forms 813 from 1 October 2022 through 30 June 2023, more than the average for a typical full FY. Additionally, the EPO consolidated Range EAs and saved over $1M and 10,000 manhours while reducing paperwork by 50 percent. The EPO cleared 107 projects under the Cantonment Area EA saving $2.5M in individual EA costs. They expedited analysis of 29 urgent operational tests, decreasing certification time by 67 percent. These tests included the installation Commander's Plan 70 Surge Requirement missions with required 24 to 48-hour turnaround.

Reaper Mission

MQ-9 Reapers sit on the flight line as remotely piloted aircraft crews wait for the fog to clear. Eglin's expedited environmental analysis provided its mission partners quick turnaround and cost savings.

Natural and Cultural Resources Management

As the largest forested military reservation in the U.S., Eglin supports a multitude of testing and training operations, as well as a diversity of natural and cultural resources. Balancing these mission and environmental requirements is a challenge, but Eglin recognizes that preserving this balance is vital to the long-term sustainability of test and training environments.

Gopher Tortoise

The gopher tortoise is a keystone species vital for the proper functioning of the ecosystem it inhabits. The gopher tortoise had the potential for Federal listing as a threatened or endangered species and this listing could significantly encumber not just Eglin's diverse mission sets, but every military installation in the southeast U.S. with suitable gopher tortoise habitat. The Eglin Natural Resources Office (NRO) established a proactive path forward to secure maximum flexibility for the mission prior to potential listing under the ESA. The NRO, in conjunction with volunteers and partnering agencies, constructed 13 temporary enclosures across the reservation allowing the translocation of 6,344 gopher tortoises. To date, more than 10,000 gopher tortoises have been moved to the installation and the NRO is on track to reach the goal of 18 minimum viable populations. The successful results of Eglin's extensive gopher tortoise conservation

efforts provided the U.S. Fish and Wildlife Service with additional justification for the "Not Warranted" final listing determination in early FY23. This marks both a significant feat in conservation as well as increased range mission activity flexibility at Eglin and installations throughout the southeast by avoiding regulatory constraints associated with impacts on a threatened species.

Releasing Tortoises
An Eglin volunteer releases a tortoise toward its new burrow.

Feral Pigs

Feral pigs are a highly reproductive invasive species whose rampant rooting activities cause destructive impacts to natural and cultural resource sites as well as test ranges. The reticulated flatwood salamander (RFS) is a vulnerable species on Eglin whose habitat is routinely damaged by feral pigs. Feral swine reduce RFS reproductive rates by rooting in and destroying ponds where salamanders in the larval stage develop. To prevent impacts, fences were built around RFS ponds and feral pig harvesting efforts were concentrated in these areas. The NRO and U.S. Department of Agriculture control staff expertly utilized innovative technologies in the trapping and/or elimination of the nuisance animals. In areas where a high unexploded ordnance hazard makes it too dangerous for control staff to enter, the highly effective use of helicopters to perform aerial control measures was implemented. Overall efforts eliminated 1,257 feral pigs, decreasing the potential for damage and health risks. By protecting vulnerable species habitats from swine, these species can thrive, which contributes to reduction of regulatory constraint on missions.

Fire

A wildfire anywhere within Eglin's 726 square miles of land could quickly get out of hand and have devastating effects on natural resources and installation assets. Even smaller wildfires on or near ranges result in halting or postponing missions. It is imperative to have an effective prescribed fire program to minimize fuel level and prevent these negative impacts. Additionally, prescribed fires enrich the habitats of threatened and endangered species by clearing out biomass, adding vital nutrients to the soil and allowing healthy regeneration of plant-life. Eglin successfully burned 169,573 acres, reducing mission downtime by 40 percent.

Cultural Resources

The CRO proactively established partnerships, consultation parameters, and standard operating procedures (SOP) to assess effects on cultural resources and maintain NHPA compliance. These efforts improved mission readiness within the nearly 123,000 square miles of airspace over the Gulf of Mexico. The implementation of SOPs avoided an estimated $250,000 survey cost during Ground Launch Small Diameter Bomb testing.

Sustainability/Environmental Stewardship

Okaloosa Darter

Eglin demonstrated an exemplary commitment to stewardship and sustainability through its habitat enhancement and fostering the protection and proliferation of threatened and endangered species, including the Okaloosa darter. This rare species of fish has a habitat range that is located almost entirely within the bounds of the Eglin reservation. Expansive conservation efforts across 385,000 acres and 2,150 miles of range roads led to the ESA de-listing of the Okaloosa darter. Efforts included minimizing pollutant

and sediment runoff into darter streams, which impacts the health and suitability of their aquatic habitat. The ESA delisting minimizes the regulatory burdens and allows for greater mission activity within the Eglin reservation.

Darter Delisting Ceremony
Dr. Ravi Chaudhary, Assistant Secretary of the Air Force for Energy, Installations and Environment, snaps a photo of the Okaloosa darter during a ceremony at Eglin Air Force Base on August 2, 2023.

Forestry

Longleaf pines are indigenous to the Southeastern U.S. and used to occupy as much as 60 million acres. They provide shelter and allow underbrush to flourish, which provide sources of food for several species. The NRO planted one million longleaf pine seedlings that established over 2,000 acres habitat.

With so many pine trees on the Eglin reservation, one of the most abundant resources are pine needles that blanket the ground. The NRO creatively devised a solution to make use of an otherwise wasted resource. They established the first ever DAF commercial pine straw contract and generated approximately $100,000 annually. These funds were used to restore roughly 600 acres of threatened and endangered species habitat.

The saw palmetto is another indigenous plant species that can be found in abundance across the Eglin reservation. Palmetto berries can be used for medicinal purposes and are a desired commodity. The NRO seized the opportunity to capitalize on the resource without negatively impacting saw-palmetto species sustainability. They developed a saw-palmetto berry harvesting contract, which yielded 230,000 pounds of berries and generated $215,000. The revenue was re-invested into the restoration of 1,200 acres of habitat. These unique and sustainable initiatives supported restoration efforts and avoid costs for DAF.

Community Relations

Eglin's extensive volunteer program of 527 volunteers provided 3,452 labor hours saving $55,232. Volunteers removed 23 tons and recycled/reused 5,162 pounds from illegal dumping within pristine woods/beaches, removing debris from threatened and endangered species habitat and improving the wildland urban interface (firebreak).

The EPO supported quality of life and economic development locally by assisting in the execution of a new 25-year easement to construct a multi-use pathway on Okaloosa Island, which sees upwards of 5 million tourists per year. In addition, the EPO provided the University of Florida with continued use of Eglin property designated as a 4-H Club recreational camp serving 300+ children annually. The CRO maintains a robust education and awareness program, bringing respect and recognition to cultural resources, enlisting community support for the stewardship of Eglin's heritage, and enhancing community relations.

Woods Cleanup
Installation and community volunteers partner to remove dumped waste from Eglin woods.