



2018 Secretary of Defense

Environmental Awards

Cultural Resources Management, Large Installation
Eglin AFB

Introduction

Situated along the Emerald Coast and extending into the heart of Florida's panhandle, Eglin Air Force Base (AFB) is home to the 96th Test Wing, which is comprised of 3,065 military, 2,859 civilians, and 2,109 contractors. Encompassing 464,000 acres of land and 123,000 square miles of water test ranges, Eglin is the largest AFB in the free world. The Installation is responsible for the development, acquisition, testing, deployment, and sustainment of all air-delivered conventional weapons. The 96th Test Wing hosts eight wing/wing equivalents and 37 associate units. Eglin AFB's total economic impact to the region exceeds \$2.75 billion annually.

Background

The Eglin AFB Cultural Resources Management (CRM) program is led by two exceptional professional archaeologists. The civilian staff is further supported by cooperating partner employees who bring additional expertise to the team in architecture

and historic preservation, curation and collections management, Geographic Information Systems (GIS), and database management. All CRM staff meet the Secretary of Interior's Professional Qualification Standards. Their experience and skill sets enable them to react quickly to emerging challenges and provide the highest quality of CRM support for the 96th Test Wing, tenants, and project proponents.

The CRM program is responsible for managing an expansive and diverse array of historic properties, from small Paleoindian campsites to sprawling Woodland Period villages; from modest pioneer homesteads to complex lumber and turpentine communities; and from remote historic aircraft crash sites to prominent Cold War-era landmarks, such as the McKinley Climatic Laboratory. The inventory currently consists of 21 historic districts or resource groups, 3,028 archaeological sites, and 2,405 historic structures. Fifty-three buildings and five archaeological sites are listed on the National Register of Historic Places (NRHP)

and another 167 buildings and 246 sites have been evaluated as eligible for listing on the NRHP.

The program is guided by its Integrated Cultural Resources Management Plan (ICRMP). The approved Plan received an annual update in September of 2017 and is due for a major revision in 2018. Approximately 85% of the long- and short-term goals have been exceeded or met, and the remainder are on track for completion in 2018. In addition to striving for achievement of Plan goals, the CRM program upholds a focus on strengthening essential mission support and readiness through enhancement of technical capabilities and improved program integration. These common threads run through most of the program's accomplishments for the achievement period.



Historic Districts

The Eglin AFB cultural resources inventory currently consists of 21 historic districts or resource groups, as depicted on this map. The CRM program manages a diverse and expansive array of historic properties.

Summary of Accomplishments

Cultural Resources Information

Management System

The Cultural Resources Information Management System (CRIMS) is the CRM program's primary tool for organizing and managing the vast warehouse of cultural resources data and project information. This robust, relational database links tabular data with both spatial GIS data and the digital library

of reports, images, and other documents. Over the past two years, the decade-old system was given a major overhaul that included reworking the data structure and streamlining of the interface, as well as adjusting data entry and management procedures. The effort has netted significant improvements to data gathering, analysis, and reporting capabilities, and reduced the average time to evaluate undertakings pursuant to Section 106 of the National Historic Preservation Act (NHPA) and the National Environmental Policy Act by 35%. Thousands of administrative man-hours are now saved due to valuable technical expertise and superior program management.

GIS Migration

Concurrently to updating CRIMS, CRM staff were faced with the need to make substantial changes to the GIS data to achieve compliance with the new Spatial Data Standards for Facilities, Infrastructure, and Environment mandated by the Office of the Secretary of Defense. During the accomplishment period, CRM staff successfully migrated all cultural spatial data from one GIS software platform to another, while simultaneously editing the data to comply with the new standards. This conversion to new software and a new data format also triggered the need for a monumental quality control/quality assurance effort to ensure data integrity, both in terms of topology and metadata, and continued interoperability with CRIMS. The transition was successfully navigated, resulting in much greater confidence in CRM spatial data accuracy and enhancement of current capabilities and future program management.

Eglin Restrictions Tracking Tool

The CRM program was instrumental in standing up the Eglin Restrictions Tracking Tool, an innovative enterprise system which enables weapons test range users and project proponents to view various location-specific environmental constraints in real-time during

the planning phase. The Tracker incorporates cultural and natural resource elements such as archaeological sites, historic properties, wetlands, endangered species, and other variables into a simple system with clearly defined categories, such as open, limited use, or prohibited. While the Tracker does not eliminate the need for coordination, it provides operational mission planners with an early indication of potential hurdles to swift execution, and greatly aids in locating development or training exercise sites that minimize resource impacts. The Tracker is further evidence of the CRM program's first-class service to military readiness and mission accomplishments.

each year. Numerous historic sites with combustible materials on the surface are susceptible to impact from these burns, but much less so than from raging wildfires. The CRM program has long supported Eglin AFB's fire management activities by removing fuels from the vicinity of sensitive structural remains ahead of scheduled burns. The CRM program devised a semi-automated GIS-based system to improve coordination efforts. This system helps CRM staff expedite review of proposed burn locations, alerts fire crews to sensitive areas, and provides appropriate guidance in terms of precautions where needed. Most importantly, it keeps managers up-to-date as to which burn blocks have been prepped. Using this system, the CRM program analyzed over 365,000 proposed burn acres and protected 41 archaeological sites from potential fire damage without impeding the critical wildland fire program.



Eglin Restrictions Tracking Tool

The Tracker provides easy access for base users to view environmental constraints in real time. Project proponents and range users are enabled to make quick assessments for their planning purposes.

Wildland Fire Management

Eglin AFB has an aggressive wildland fire management program, typically applying prescribed fire to approximately 90,000 acres

Real Property Integration

The CRM program proved vital to the successful completion of the 2017 Financial Improvement and Audit Readiness (FIAR) real property asset accountability drill. CRM staff actively engaged and assisted real property personnel with a major update of the historic status codes in real property records for over 3,000 facilities and provided required documentation for 629 historic buildings. An accurate and comprehensive real property asset universe is essential for audit readiness and has far reaching budgeting impacts for all Air Force installations. Despite legal and regulatory protections, archaeological sites located on or adjacent to easements and leased lands are prone to inadvertent disturbance by third parties. CRM staff joined the newly assembled interdisciplinary team of real estate and environmental professionals tasked with monitoring Eglin AFB's 284 real estate out grants. They developed a weighted prioritization scheme for assigning risk levels

which focuses the team's efforts on those out grants most at risk of violation.

Curation

Over 35 years' worth of archaeological investigations, including survey of 288,000 acres and excavation at thousands of sites, has generated a truly massive collection of artifacts and reports. This collection is kept in a repurposed World War II-era building at Eglin AFB, where it is expertly and efficiently managed by CRM staff. The curation center currently houses 1,544 cubic feet of boxed artifacts and 695 linear feet of associated records, not only from Eglin AFB, but also from Tyndall AFB, Hurlburt Field, and Avon Park Air Force Range. Each of these installations has entered into a curation Memorandum of Agreement with Eglin AFB. Through clever reconfiguration, an additional 400 square feet of space was added in 2017 to meet the space demands of the growing collection. This arrangement enables the base to maintain control over its collection, while simultaneously avoiding an estimated \$200,000 in off-base curation costs.

Project Support

Investing in improvements to the CRM program's technical toolkit paid dividends in direct mission support. During the accomplishment period, the program swiftly analyzed over 1,100 projects through Eglin AFB's online Environmental Impact Assessment Process site and processed over 3,800 Civil Engineering work orders and request forms. CRM staff were able to clear nearly 500 work requests without Florida State Historic Preservation Officer (FL SHPO) consultation using the existing Programmatic Agreement for managing historic properties, saving thousands of man-hours. Potential historic preservation concerns were addressed while enabling timely completion of projects. Efficient project review coupled with timely consultation, while routine, can yield

remarkable results. Plans to construct a new fire station adjacent to the flight line, for example, were expedited by CRM staff resulting in the successful relocation of this \$13.6 million project. This project ultimately bolsters fire safety for mission personnel and tens of millions of dollars of aircraft, facility, and infrastructure assets.

Maritime Weapon System Evaluation

The Maritime Weapon System Evaluation Program conducts vital weapon testing events twice annually in the Gulf of Mexico. CRM staff rapidly redeployed resources to conduct three square miles of additional maritime survey when the test area had to be expanded, effectively quadrupling the test area cleared of cultural resources concerns (e.g. potential historic shipwrecks). When public safety concerns required an even greater, short-notice move of the target area, they again initiated a speedy response, clearing the mission in just 15 days. CRM staff engaged the FL SHPO, Eglin AFB maritime biologists, and a private contractor to develop a plan using the Installation's maritime context study, previous survey findings, and Natural Resources data. The scheduled \$500,000 test was successfully conducted, costly delays were averted, and avoidance of historic shipwrecks was assured. In addition, the original one square mile cleared test area has been expanded to 42 square miles for a fraction of the cost of intensive maritime survey. This is another example of how effective CRM program communication and superior regulatory relations enhance and support military readiness at Eglin AFB.

State Route 87 Data Recovery

Viable hurricane evacuation corridors are crucial to both the military and civilian population on the Gulf Coast. State Route 87, one of the few such corridors leading north from the coast, runs through Eglin AFB via a Florida Department of Transportation (FDOT) easement. Widening this highway to four lanes

is a public safety necessity, but the route is straddled by the NRHP-eligible Broxson Resource Group historic district. The project would result in an unavoidable adverse effect to three of the historic sites comprising that property, which includes remains of individual households of a kin-based community dating to the early twentieth-century. Eglin AFB CRM staff expertly worked with the Federal Highway Administration, FDOT, and the FL SHPO to develop a lasting Memorandum of Agreement to address the effects of widening the highway. A limited data recovery plan, including excavations, archival research, and interviews with community descendants was initiated. The road improvement project went forward, with implementation of the plan resulting in savings of approximately \$600,000 in estimated data recovery costs avoided. Unaffected portions of the sites were protected with fencing as a land use control. By including residents with direct ties to the archaeological resources, knowledge of historic communities in the area was greatly increased. Just as important, pragmatic project execution eases future concerns of hurricane survivability and recovery actions.



Cultural Resources Management

Archaeologists document the foundation of the early twentieth-century Broxson store during limited data recovery at the Broxson Resource Group. The inter-agency coordination on this project resulted in a management plan that allowed corridor improvements to State Road 87 to proceed on schedule. Evacuation routes along the Gulf Coast are few but essential. The widening of State Road 87 will provide viable egress for Gulf Coast residents and the military during emergencies.



Living Shoreline

An oyster shell attenuator was installed to protect an Eglin AFB archaeological site from erosion occurring along the shores of Choctawhatchee Bay. The CRM team partnered and consulted with various stakeholders, regulators, agencies, tribal partners and the public to successfully initiate the living shoreline proposal. The benefits of this effort include protection of significant cultural, natural, and valued real property assets.

Conservation

The northern shore of Choctawhatchee Bay is a highly erosional environment. It was also a popular location for prehistoric settlement and numerous significant prehistoric sites are present, many of which are experiencing significant impacts from coastal erosion. In effective consultation with numerous stakeholders, including the 96th Test Wing, Eglin AFB Natural Resources, FL SHPO, the Advisory Council on Historic Preservation (ACHP), Tribal partners, FL Department of Environmental Protection, the Army Corps of Engineers, and the public, CRM staff devised a plan to protect these sites with living shorelines. Partnering with the Choctawhatchee Basin Alliance, Eglin AFB is installing arrays of oyster shell attenuators. The project will protect the sites from further erosion, re-establish natural habitat, prevent the loss of high-value real estate, and save hundreds of thousands of dollars over traditional rip-rap installation. Three sites are in various stages of completion, another is in permitting, and funds

are programmed to treat remaining endangered sites in future years. This monumental collaboration effort signifies DoD CRM leadership.

Native American Program

Eglin AFB routinely consults with five federally recognized Native American Tribes from the southeast region. Memoranda of Understanding are in place with two of those tribes and a draft Installation Tribal Relations Plan is nearing finalization. Eglin AFB is an active participant in the Annual Thunderbird Intertribal Powwow, held every November during National American Indian Heritage Month. The CRM program and staff were the driving force behind Eglin AFB's participation over the last two years, ensuring availability of location, volunteers, and other resources. The week-long event is attended by over 8,000 people annually and provides an excellent opportunity to educate the public, foster better tribal relations, and recognize American Indian heritage and accomplishments.



Powwow

Tribal dances are an integral part of the Annual Thunderbird Intertribal Powwow. Tribes come from across the United States to share their cultural and historical traditions. 2017 marked the 30th Anniversary of this well attended event.

Education & Outreach

CRM staff is virtually unmatched in education and outreach initiatives. They sustain a strong working relationship with museums, providing an excellent opportunity to share artifacts and information with the public. Eglin AFB teamed up with Rocky Bayou State Park for the Pioneer Day festival, an outreach opportunity focused on educating people about local history and the lifeways of area pioneers. CRM collections managers put together artifact displays for the Heritage Museum of Northwest Florida in Valparaiso and supported a new display for exhibition in the lobby of the natural resources offices at Jackson Guard. The latter is seen by approximately 20,000 visitors annually, effectively increasing historic preservation awareness for recreational users of the Eglin AFB reservation.

Outreach is not limited to the public, but was also extended inward to base personnel, leadership, and tenants. In 2016, the CRM program hosted an ACHP-led class on historic preservation and the Section 106 process at Eglin AFB. Awareness of legal requirements and procedures was raised for the nearly 50 Eglin AFB personnel and leadership in attendance. CRM staff also taught the United States Army's 6th Ranger Training Battalion how to respond when encountering cultural resources on the reservation. Tailored classes were taught during each round of training, approximately every two months. Knowledge of cultural resources and range restrictions was enhanced and training impacts to archaeological sites were avoided. CRM staff also produced an informational pamphlet describing 22 NRHP listed or eligible structures and resource groups located on test ranges across the reservation. The pamphlet provided general descriptions and locations of these resources to range users and mission planners and raised awareness levels regarding historically significant military structures.

Archaeological Survey

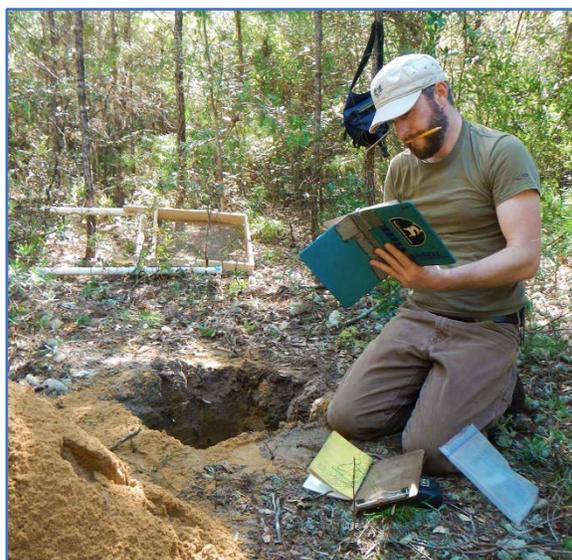
The CRM program has long included a proactive archaeological survey on the reservation. The survey has not only helped Eglin AFB comply with Section 110 of the NHPA, but has also proven invaluable to operational flexibility for range users and mission planners by greatly reducing the lead time required for coordination. Approximately 15,000 acres were surveyed during the accomplishment period, opening even more area for the growing land training exercise requirements of Eglin AFB's tenants. This effort achieved 98.5% completion of the long-term ICRMP goal of total coverage of all high probability areas, with most of the remaining survey scheduled for the coming year. Light Detection and Ranging technology was leveraged on 3,494 acres of the survey which was conducted in wetlands. This innovative technique has proven effective at Eglin AFB for enabling targeted excavations in difficult environments and effecting a cost-savings of 30% relative to conventional methods. As Eglin AFB's terrestrial survey inventory goals near completion, the CRM program has begun proactively conducting near-shore maritime surveys in areas likely to be affected by amphibious training exercises or other mission impacts. Twelve square miles of survey was completed in Choctawhatchee Bay, an effort which identified three historic shipwrecks and 21 other potential submerged resources. Furthermore, 51 archaeological sites were tested and evaluated during the accomplishment period. Nearly 60% were recommended not eligible for the NRHP, thus returning over 300 previously protected acres to the warfighter. Additional funding was secured to evaluate 35 more sites in 2018.

Historic Buildings

The historic buildings survey goal is nearing realization. Despite the vast number of historic buildings at Eglin AFB, the majority have been evaluated for the NRHP, with 132 more

evaluations completed in the last two years. The CRM program is now pushing to achieve the long-term ICRMP goal of clearing the real property inventory through the end of the Cold War. A new real property database status code, "Not Assessed Routinely" (NAR), essentially eliminates the Section 110 requirement for these structures, but not Section 106 consultation should there be a potential adverse effect. CRM program staff have been working closely with real property staff to update their records to incorporate the new NAR code. The CRM program also included a process for eliminating the need to consult on these and similar structures in the draft comprehensive Section 106 agreement with FL SHPO. A project to evaluate all remaining Cold War-era buildings that could not be included in the new agreement is scheduled for next year.

The sheer qualitative and quantitative accomplishments provide empirical evidence that Eglin AFB is the 2018 large installation DoD leader in cultural resources management.



Survey

An Eglin AFB CRM archaeologist records a shovel test as part of a small-scale Section 106 survey. These types of surveys are quickly done providing a quick turn-around to support mission planning and training activities.