



2005

Secretary of Defense

Natural Resources Conservation Award

TEAM EXCELLENCE

MOODY AIR FORCE BASE, GEORGIA

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BACKGROUND

The Analysis, Plans, and Programs Element is comprised of Johnna Thackston, Rebecca Evans, Greg Lee, Bruce Connell, and Mike Burton. This team is the focal point for Moody Air Force Base's (AFB) award-winning natural resources management program. The element is part of the Environmental Management Flight, 347th Civil Engineer Squadron, Moody AFB, Georgia.

POSITION DESCRIPTION

Moody AFB is home to complex multi-command missions. Wings and groups housed at Moody include the 347th Rescue Wing, which trains and executes operations worldwide as the Air Force's only active duty combat search and rescue wing. Also resident to Moody AFB is the 820th Security Forces Group, which provides highly skilled, mobile security forces key to Global Engagement, and the 479th Flying Training Group, responsible for training the next generation of aviators. Conducting these missions requires continual operations on land, in the water and through the air environments encompassed by the more than 11,000 acres of Moody AFB. The various missions result in a situation with high potential to adversely impact the surrounding natural resources. Protecting the environment in and around the base requires daily diligence and thoughtful planning to ensure the continued viability of precious resources while sustaining Moody's vital military missions.

To that end, Moody employs a diverse team to manage and conserve natural resources, both on and off the base. Ms. Thackston is a professional archeologist and a National Environmental Policy Act (NEPA) specialist with a M.P.A. in Natural Resources Management and Environmental Policy. Mr. Lee is a Certified Wildlife Biologist with a M.S. in Wildlife Biology and Forest Resources. Mr. Connell is a Certified Forester and a member of the Society of American Foresters, with a B.S. in Forestry. Ms. Evans is a Restoration Biologist currently working on a M.S. in Environmental Policy, and Mr. Burton is a junior at Valdosta State University, majoring in Environmental Geography.

AWARDS AND SERVICES:

Secretary of Defense Award, Individual Excellence, in Natural Resources Conservation, 2003: Mr. Lee's past accomplishments at Moody AFB have represented the best practices in natural resource management. As a result, he received the Secretary of Defense Environmental Award for Natural Resources Conservation.

As a whole, the team's proactive approach to natural resources management was demonstrated through presentations at the Department of Defense (DoD) Natural and Cultural Resources Conference and other venues. Team members are recognized leaders in their disciplines, and represent Moody AFB through membership in The Wildlife Society, The Society of American Foresters, Society for American

Archaeology, and the National Military Fish and Wildlife Association.

ACCOMPLISHMENTS

Ecosystem Management:

Visitors to Moody AFB who look beyond the teeming airfield are afforded a glimpse into the ecological past. Stately pine trees bear 70-year-old "cat-face" scars from the turpentine boom and guard gopher tortoises basking on their burrow aprons, unperturbed by the sound of an accelerating T-38 trainer. The team's unique combination of expertise in natural and cultural resources enables Moody AFB to balance the military mission with the conservation of traditional southern ecosystems. While these ecosystems are declining throughout the southeast, Moody AFB proactively manages a flourishing complex system of Carolina Bays, wetlands, hardwood hammocks, and upland forests reminiscent of the old south.

The most defining characteristic of Moody AFB is also one of Georgia's most unique ecosystems, the 12,000-acre Grand Bay-Banks Lake Ecosystem. Within this ecosystem are three distinct Carolina Bays with a myriad network of streams, creeks, hardwood hammocks, upland forests, and an abundance of native fauna and flora, including 27 species tracked by the Natural Heritage Inventory, four of which are federally listed, and six of which are state-listed as endangered or threatened species.

Because this ecosystem crosses political boundaries, the team established a dynamic partnership with the major land owners of the surrounding area. The partnership includes the Georgia Department of Natural Resources (GA DNR), The Nature Conservancy, the U.S. Fish and Wildlife Service, and 57 private landowners, to develop and implement a Cooperative Stewardship Plan for the entire ecosystem. This plan, funded through a \$100K Legacy Grant in 2001, recognized that the

ecosystem was shaped by two main factors: hydrology and the occurrence of periodic regional wildfires. Building on this plan, the partnership defined Desired Future Conditions for the ecosystem and secured a \$150K Legacy Grant to study hydrologic connectivity and natural fire frequency in the Carolina Bay communities. Results from this study will be used by regional planners and natural resources managers as tools to assist in managing similar systems throughout south Georgia and north Florida.

As prescribed burning is the single most effective tool to restore and maintain Moody AFB's native ecosystems, the team implements an aggressive prescribed burning program to restore fire to the system. Partnering with the GA DNR and Georgia Forestry Commission, more than 800 acres (30 percent of uplands) are burned annually. The team also successfully restored native pine ecosystems on the base by employing a combination of innovative management tools. This effort not only restored native forests but improved endangered species habitat and increased available training land by more than 10 percent. This unique approach was adopted as the standard by The Nature Conservancy to restore degraded habitats throughout south Georgia.

INTEGRATED FOREST MANAGEMENT

Moody AFB has a long history of professional forest management. Total forested acres are 7,469 of which 2,610 acres (35 percent) are considered upland and 4,859 acres (65 percent) forested wetlands. In the past two years more than 600,000 board feet of lumber was sold, generating more than \$200K in program funds. These proceeds funded parts of the upland forest restoration project, including the roller chopping of 287 acres over the last two years, resulting in a 10 percent increase in

land navigation training acreage and a 200 percent increase in the number of gopher tortoise burrows, a state threatened animal.

Through cooperative agreements with the U.S. Forest Service and the Georgia Forestry Commission, Moody AFB became the first south Georgia wildland fire training center. As a result, non-DoD wildland firefighters are afforded access to Moody AFB to train with the team during prescribed burns and attend professional classes in wildland fire management. This provides the base with free trained personnel for prescribed burns, saving valuable natural resources dollars, and establishing Moody AFB as the regional leader in professional wildland fire management and training.

Building on the urban tree inventory, the team developed an Urban Forest Plan to protect 9,000 landscape trees worth \$12M and the base infrastructure. Using this plan, hazard trees were proactively identified and removed prior to recent hurricanes, saving base buildings and structures. With its many landscape islands of mature loblolly pine and live oak trees shrouded in Spanish moss, the base has a very definitive “Old South” feel about it. These and other landscaped areas lend aesthetic value and promote quality of life. The Urban Forest Plan was integrated with the base master plan to identify areas of aesthetic or unique value for consideration and/or preservation.

Consistent with this effort, Moody AFB maintained its Tree City USA designation for the sixth year, including holding annual Arbor Day ceremonies. During Arbor Day, volunteers and team members provide local school children with an opportunity to visit the base and take an educational interpretive tour along the Grand Bay elevated boardwalk. Few visitors to Moody AFB leave without being touched in some way by the natural beauty that exists in and around the base.

Fish and Wildlife Management

The team's management activities in upland forests are primarily designed to maintain and enhance habitat for the state threatened gopher tortoise. The gopher tortoise is a keystone animal in the ecosystem, providing habitat through its burrows for more than 200 other species, including the federally threatened indigo snake. Because indigo snakes and gopher tortoises use the same habitat and share burrows during winter months, the restoration of native pine forests was beneficial to both species.



To advance the scientific management of these species, the team conducted in-house population studies to document the movement and habitat use of tortoises and the impact of military training actions. Radio transmitters were placed on 13 gopher tortoises in order to track and monitor their daily movements. Through a cooperative agreement with Valdosta State University, the team conducts ground-breaking research into gopher tortoise movements, utilizing radio frequency identification (RFID) chips, automatic field readers, and remote still and video cameras. These systems allow the team to monitor tortoise movements 24 hours a day, seven days a week to better gauge the effects of military actions on tortoise populations. Not only will the results from this study improve future regulatory consultations, but will provide

essential information on tortoise biology to other natural resources managers in the southeast.

Over the last two years, proactive surveys for other rare and newly listed species, including the southeastern myotis and the federally threatened Flatwoods Salamander, were completed. In support of the Bird/Wildlife Aircraft Strike Hazard (BASH) program, a study was initiated to map vulture and egret movements throughout the Grand Bay-Banks Lake Ecosystem, providing pilots information needed to avoid high risk roosts and flyways, and the team obtained approvals to expand the BASH program to off-base areas within a five-mile radius of Moody AFB. Integrating BASH with other natural resources programs, the team conducts habitat management activities to reduce bird populations and implemented changes to the deer hunting program to ensure hunters are placed in specific areas to reduce deer numbers around the airfield.

Fishing remains the most popular outdoor recreational activity on the base, with more than 1,000 fishermen utilizing base lakes and ponds on an annual basis. Using scientific fisheries management techniques, including creel surveys, population estimates, and exotic vegetation control, the team manages four lakes for recreational fishing. By hosting an annual children's fishing rodeo, the team promotes consumptive uses of our natural resources while educating the next generation on conservation issues.

The team has continued to partner with the GA DNR to include part of the base in the GA DNR Wildlife Management Area. This unique agreement provides the base with free professional wildlife management assistance from the GA DNR, while allowing installation personnel and the

general public to participate in outdoor recreational activities on the base.

CONSERVATION EDUCATION/ COMMUNITY RELATIONS

Conservation education is a vital key to successful resources management. Valdosta State University students and faculty routinely visit Moody AFB, especially the rare Dudley's Hammock, to see and study unique native ecosystems in pristine states. In 2005, the natural resources team was asked to be part of the Governor's Honor Program, a six-week summer instructional program that provides intellectually gifted and artistically talented high school students challenging and enriching educational opportunities. A full day is spent with the Students exposing them to a wide array of management techniques. This is a true win-win situation for both the installation and the students.

Also of interest was the support given in the effort to develop privatized military family housing. While reviewing the contractor's environmental assessment (EA), the team recognized that natural and cultural resources assessments of the area were either missing or inadequate. The team proactively directed surveys of the area, utilizing both contract personnel and community volunteers. Working under a looming deadline caused by the oversight in the EA, the team's efforts ensured that natural and cultural resources received adequate consideration, resulting in a Finding of No Significant Impact (FONSI) for the EA and no delay in the implementation of the privatized military family housing. The regulatory community is highly aware of the team's stewardship programs at Moody AFB, as a result the installation is commonly given greater flexibility in expanding its military requirements because of the meticulously

researched and extensively documented environmental considerations.

Support of Military Readiness

The natural resources team is the “gate keeper” in overseeing a conservative 100 percent increase in field-based, small unit training intensity over the past two years. This increase is a result of a doctrinal shift in DoD requiring airmen in most skill codes to receive some land navigation, small arms, and convoy management instruction. Because of this DoD-driven increase in training, the team was instrumental in ensuring its timely implementation for deploying troops by its analysis of natural resources impacts through the NEPA process. Recent projects reviewed by the team include the development of a new, ten acre obstacle course, the building of a Military Operations on Urbanized Terrain (MOUT) village for urban warfare training, the coordination of scheduling ever-increasing training events at the small arms range, and establishing search and rescue training areas in designated Critical Habitat for the Atlantic Right Whale.

Because of the expertise of the Team, Moody AFB rarely uses contract support for NEPA investigations and as a result, their efforts saved the government an estimated \$200K over the past two years. They directed and participated in five EAs in FY04 and three in FY05 to support the military mission at Moody AFB. All of these EAs resulted in FONSI and have withstood the scrutiny of Federal, State and private conservation agencies and public review with few, if any, comments.

Always cognizant of the mission of Moody AFB, the team employed natural resources management activities that would both benefit natural resources and the military mission. The restoration of degraded pine forests improved the quality and quantity of field training areas on the installation,

allowing military units to conduct more training locally, saving critical time and program dollars. Coordinating the placement of permanent firebreaks with military planners allowed the firebreaks to be used for ATV training and as access routes to new remote field training areas. Additionally, through the use of small-lot timber sales, the team removed airfield hazards at no cost to the base.

In 2005, the team completed a multi-year effort to obtain off-base helicopter landing zones on private, state, and federal lands. Using in-house expertise, the team located suitable training areas throughout north Florida, south Georgia, and North Carolina, and completed required natural and cultural resources surveys and environmental documentation. Because of the efforts of this dedicated and professional team, Moody AFB airmen now have 22 off-base helicopter landing zones in a variety of topographies to ensure training proficiency.

CONCLUSION

The success of the natural resources program at Moody AFB is directly attributed to the professional guidance of the Analysis, Plans, and Programs Element. They are consummate team players who are interested in providing the base only the best of their abilities. Whether coordinating with outside agencies, engineering and military planners or with fellow staff, the results always include two positive outcomes -- natural resources are preserved and protected and the Air Force mission is enhanced.