An Update on the Air Force Pilot Project:

Developing the Florida Strategic Plan for Sustaining Military Readiness through Conservation Partnerships

18 November 2015
Quick Overview

• Pilot Project Background
• Status – Where Are We Now?
• Plan Content
• Technical Analysis
• Schedule and Path Forward
Background

• Problem:
  – Air Force installations must effectively balance managing natural resources with meeting their military missions.
  – Challenges come from external and internal encroachment pressures, increased regulatory requirements, and climate change.

• Response:
  – Examine all resources and challenges at the landscape level to find workable solutions at the installation level.
  – First step: Develop *Florida Strategic Plan for Sustaining Military Readiness through Conservation Partnerships*. 
Background

• First pilot project meeting: Avon Park Air Force Range, September 2014.
  • Result: Developed concept and goals

• First project team meeting: Panama City, March 2015.
  • Result: Confirmed content and deliverables

• Site visits: 8 installations, June 2015.
  • Result: Gathered data for Florida Strategic Plan
Goals

• **Overall goal:** To establish a regional approach to natural resources management that minimizes multiple encroachment threats and alleviates on-installation constraints to provide a landscape to support military mission.
Partners in Plan Development

• Core Team includes:
  - Air Force
  - University of Florida
  - U.S. Fish and Wildlife Service
  - Florida Fish and Wildlife Conservation Commission
  - Florida Natural Areas Inventory
  - The Nature Conservancy
  - National Wildlife Refuge Association

Prepared in Partnership with:
FLORIDA STRATEGIC PLAN
for Sustaining Military Readiness through Conservation Partnerships

HURLBUT FIELD
ACREAGE: 6,634 acres
LAND COVER: Mixture of ecological communities including swamp, flatwoods, maritime hammock, cypress domes, and sandhill communities.

SUMMARY OF MANAGED NATURAL RESOURCES:
Hurlburt Field is located on 6,634 acres and approximately 50 percent of the installation is comprised of state and federal jurisdictional wetlands. The installation supports a diversity of wildlife and plants; 13 rare plants and 12 rare animals have been recorded on base. Compensation mitigation includes 3,200 wetland acres and 125 upland acres.

NOTABLE NATURAL RESOURCES CONSTRAINTS:
Federal jurisdictional wetlands (32 percent of installation) and rare plant and animal species.

MACDILL AFB
ACREAGE: 5,628 acres
LAND COVER: Primarily developed land. Outer coastal plain mixed forest and lower coastal plain and flatwoods.

SUMMARY OF MANAGED NATURAL RESOURCES:
MacDill AFB is geographically restricted with water surrounding three sides of the installation and urban area on the fourth side. Primary resources are marine and shore species. A total of 20 reptiles, 17 mammals, and 156 birds are expected to occur on MacDill AFB.

NOTABLE NATURAL RESOURCES CONSTRAINTS:

EGLIN AFB
ACREAGE: 464,000 acres
LAND COVER: Old-growth longleaf pine forest and wetlands. Large amount of undeveloped land.

SUMMARY OF MANAGED NATURAL RESOURCES:
Eglin AFB is recognized as leader in proactive natural resource management while maintaining mission. Ecosystem management has led to Enlarged Species Act (ESA)-listed species downlisting. Largest forested military installation. Located in a biodiversity hotspot with 12 terrestrial and marine ESA-listed species.

NOTABLE NATURAL RESOURCES CONSTRAINTS:
Multiple federally listed species including relictual flatwoods salamander (Ambystoma bishopi) and Gulf sturgeon (Acipenser oxyrinchus desotoi).

TYNDALL AFB
ACREAGE: 29,953 acres
LAND COVER: Mostly unimproved land and developed or undeveloped military activity areas. Largely cleared and native vegetation in upland replaced with slash and sand pine.

SUMMARY OF MANAGED NATURAL RESOURCES:
Tyndall AFB is located on a peninsula on St. Andrews Bay and the Gulf of Mexico. A total of 20 taxa of plants and 27 taxa of listed animals are known to inhabit or use the immediate surroundings. This number of animals includes 8 species of reptiles, 14 species of birds, 1 species of fish, and 6 species of mammals.

NOTABLE NATURAL RESOURCES CONSTRAINTS:
Sea turtles and lighting compatibility, Beach mice and development, Shorebird habitat, Gopher tortoise, Panama City crottlefish (Procambarus ecorrhinus) (candidate species).

AVON PARK AIR FORCE RANGE
ACREAGE: 105,034 acres
LAND COVER: Large areas of unimproved land that include cultural slopes, Florida dry prairie, and Florida oak scrub, as well as large areas of pine flatwoods, hardwood hammocks, and wetlands.

SUMMARY OF MANAGED NATURAL RESOURCES:
Avon Park Air Force Range (APFR) manages large areas of rare central Florida ecosystems, including dry prairie, oak and sand pine scrub, pine flatwoods, and freshwater marshes. The base hosts a substantial red-cockaded woodpecker (RCW) population and Florida bonneted bat roost.

NOTABLE NATURAL RESOURCES CONSTRAINTS:

CAPE CANAVERAL AFS
ACREAGE: 18,442 acres
LAND COVER: Primarily developed land with many abandoned launch complexes and beach dunes. Open spaces managed for natural resources or used as buffers. In addition to beach dunes, native habitats include scrub.

SUMMARY OF MANAGED NATURAL RESOURCES:
Cape Canaveral AFS is located on a barrier island and consists of scrub habitat with small portions of maritime hammock and hurricane hammock. More than 23 mammal, more than 50 amphibian and reptiles, and more than 200 bird species are known to occur on or in the vicinity of Cape Canaveral AFS.

NOTABLE NATURAL RESOURCES CONSTRAINTS:
Scrub-piny and scrub habitat management. Sea turtles and lighting compatibility; Scrub jay potential habitat (Jonathan Dickson). Gopher tortoise (Jonathan Dickson). Candidate/proposed species.

PATRICK AFB
ACREAGE: 2,002 acres
LAND COVER: Primarily developed land. Some coastal and wetlands.

SUMMARY OF MANAGED NATURAL RESOURCES:
Patrick AFB is located on a barrier island. Various wildlife species inhabit, utilize, or frequent Patrick AFB. Specifically, 6 mammal species, 8 amphibian and reptile species, and 46 bird species are known to occur on or in the vicinity of Patrick AFB.

NOTABLE NATURAL RESOURCES CONSTRAINTS:
Sea turtles and lighting compatibility, Scrub-piny and scrub habitat management. Gopher tortoise. Invasive species Brazilian pepper (Schinus terebinthifolius). Candidate/proposed species.

HOMESTEAD ARB
ACREAGE: 1,943 acres
LAND COVER: Primarily developed land. The region is composed of flatwoods, scrubby flatwoods, sandhill, scrub, prairie, and wetlands.

SUMMARY OF MANAGED NATURAL RESOURCES:
Homestead Air Reserve Base (ARB) natural resources program focuses on protecting and maintaining wetland functions; restoring pine rockland without using fire; controlling and eradicating invasive/exotic species; managing water quality; maintaining and enhancing natural habitat values; and encouraging, where possible, natural resource-based outdoor recreation opportunities.

NOTABLE NATURAL RESOURCES CONSTRAINTS:
Rare plants including listed (Sabal) and candidate sand flor; Froward/strait air strike hazard impacts; Invasive species.
Where Are We Now?

• Preliminary Draft Florida Strategic Plan: Delivered to Air Force and USFWS in October (under review)

• Focal species lists: Adding species at risk and other species of interest to installations and USFWS

• Refining study areas for each installation to include important landscape features and species habitat as well as areas for reducing encroachment

• Geospatial data gathering: Continuing to collect Air Force installation information
Plan Content

• Background
  – Identifying a Need
  – The Purpose of the Plan
  – The Role of the Landscape Conservation Cooperative
  – The Role of Geospatial Planning
  – Integration with Other Planning Efforts
  – The Air Force in Florida (Lands, Mission, Organization)

• Mutual Constraints and the Impacts of Encroachment
  – What is a Constraint?
  – Effects of Encroachment, Habitat Loss, and Climate Change
  – Focal Species

• Finding Solutions
  – Collaborative Efforts and Partnerships
  – Pooling Resources
  – Conservation and Wetland Mitigation Banking
  – Recent Air Force Successes

• Air Force Landscape-Level Conservation Priorities

• Strategic Opportunities Across Florida
Strategic Focus Areas

• Under each focus area, the Plan identifies Strategies with groups of Objectives/Actions to help achieve the Plan goals
• Objectives/Actions may be implemented by Air Force and/or partner staff
Technical Analysis: Focal Species

- Started with AF priority species based on June meetings and list of T/E species maintained by the AF for Florida installations.
- Assessment by FNAI to add other potentially relevant federally listed, candidate, petitioned, or other tracked species for each AF installation.
- Potential focal species lists currently being reviewed by AF personnel.
Draft Study Area Selection Process

• Not standardized, each base is unique
• Factors considered so far include:
  – Potential focal species habitat
  – Important wildlife corridors/intact landscapes
  – Natural community/management priorities for specific bases
  – Watersheds
• Factors not included yet: Potential mission priorities
• Draft study areas currently being reviewed by AF personnel.
Draft Study Areas for all Air Force Installations

Florida Strategic Plan for Sustaining Military Readiness Through Conservation Partnerships
Focal Installations and Draft Study Areas

Legend:
- Focal Air Force Installation
- Draft Study Area
- Open Water
- County Boundary
Draft Study Areas: **Homestead ARB**

- Potential habitat for relevant listed plant species on both protected and unprotected lands near the base
- Potential relevance to helping to protect and restore critical wetlands south of the base
Draft Study Areas: **Avon Park AFR**

- Considered priority focal species habitat (primarily Florida grasshopper sparrow, Florida scrub-jay, and red-cockaded woodpecker)
- EHNWR boundary
- Critical Linkages within the Florida Ecological Greenways Network
Draft Study Areas: 
**MacDill AFB**

- Based primarily on wetland and seagrass related conservation/mitigation opportunities along the shoreline of Tampa Bay
- Some consideration of wading bird colony locations and potential gopher tortoise habitat.
Draft Study Areas: *Patrick AFB*

- Used sea turtle nesting habitat, wood stork habitat to indicate wetland conservation/management opportunities, seagrass areas, and wading bird colonies.
- The concept was to include much of the southern half of the Banana River ecosystem while also incorporating the sea turtle nesting beaches north and south of the base.
Draft Study Areas: **Cape Canaveral AFS**

- Potential Florida scrub-jay habitat on the mainland that might provide mitigation opportunities and stepping stones to connect Canaveral jays to other subpopulations.
- Incorporation of important aquatic ecosystems including most of Mosquito Lagoon and Indian River.
- Protection of an ecological connection between Canaveral and adjacent conservation lands to the mainland as part of the FEGN.
Draft Study Areas: **Tyndall AFB**

- Inclusion of available unprotected *Pinguicula ionantha* habitat north and east of the base.
- Inclusion of the St. Joseph Peninsula/Cape San Blas area because of very similar species habitat and management issues including shorebirds, beach mice, and sea turtles.
- Consideration of other potential focal species including gopher tortoise, bald eagle, and flatwoods salamander.
- Protection of an ecological corridor between Tyndall and existing and potential future inland conservation areas through the FEGN.
- Inclusion of an important gap in FEGN Critical Linkages between Apalachicola National Forest and the Econfina Conservation Area.
Draft Study Areas: *Eglin AFB/Hurlburt Field*

- Included important watersheds to installation and regional conservation: Yellow and Blackwater Rivers, western half of Choctawhatchee River watershed, and eastern half of Escambia River watershed.

- Where not already expanded to include watershed areas, incorporated approximate 10-mile buffer around installations to include beachfront and other important habitats for focal species.

- Added unprotected gaps in Critical Linkages within FGEN from Choctawhatchee River west to Escambia River, which also includes connection to Whiting Field.
Florida Strategic Plan for Sustaining Military Readiness Through Conservation Partnerships
Eglin AFB-Hurlburt Field Study Area

- Draft Eglin AFB-Hurlburt Field Study Area
- Air Force Installation
- Other Conservation Area
- Combined Beach Mouse Critical Habitat
- Combined Sturgeon-Mussel Critical Habitat
- Red Cockaded Woodpecker Habitat
- Reticulated Flatwoods Salamander Habitat
- Gopher Tortoise Potential Habitat
Technical Team Work: Next Steps

- Finalize the Study Area boundary for each installation.
- Finalize the lists of focal species for each installation.
- Select the best available habitat data for each focal species.
- Determine whether there are any data gaps in focal species occurrence data on or near installations.
- Identify habitat conservation priorities for selected focal species based on criteria including: condition, size, proximity, protecting viable/connected populations.
- Identify any additional habitat or landscape connectivity priorities.
- Compare conservation priorities to mission-related priorities to determine overlap.
- Consider comparing implementation priorities to potential future impacts including projected development/future land use and sea level rise.
- Consider identifying specific priority parcels if considered appropriate.
- Develop habitat conservation priorities recommendations including for each focal species and protecting ecological connectivity.
- Consider basic management recommendations for any focal species that may not be a current management priority for installations but may be recommended to be.
Mutual Benefits

• Expected benefits to Air Force
  – Exposure to new partners and conservation opportunities through PFLCC
  – Continued military mission flexibility by alleviating constraints on installations
  – Creation of new data and analyses which can be used to identify buffering, connectivity, and natural resource impact mitigation opportunities
  – Potential for making Florida Air Force installations more competitive for REPI funds

• Expected benefits to PFLCC
  – Better understanding of Air Force conservation programs and resources
  – Common language/foundation of priorities with Air Force for decision-making
  – More opportunities and potential funding to protect strategic areas
What’s Next?

• Schedule/Milestones

  – Core team is reviewing Preliminary Draft and comments will be addressed; data gathering and analysis continue

  – Mid to late-January, a Draft version of the plan will be distributed to the Air Force installation environmental and planning staff for their review.

  – Early April, a Final Draft version will be distributed to the full project team and the PFLCC Steering Committee for additional contributions.

  – May 2016, the Final version will be published and made widely available.
QUESTIONS?