

**Final Environmental Assessment for the  
Target Enhancement Railway  
At Avon Park Air Force Range, Florida  
February 2008**



**Prepared by the  
Environmental Flight  
Avon Park Air Force Range, Florida**

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**Environmental Assessment  
At Avon Park Air Force Range, Florida**

Proposed Action: Avon Park Air Force Range, Florida

Type of statement: Environmental Assessment

Cooperating Agencies: None

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Abstract: The Proposed Action would create a mock railway that would enhance target, opposition force, and friendly force identification by aircrews who are training with ordnance deliveries. Impacts from constructing, operating, and maintaining the railway included minor increases in stormwater runoff and respective soil erosion, potential minor injury to cattle, and potential soil contamination by organic compounds from railroad ties. The wooden railway ties would be susceptible to burning by wildfires and prescribed burns and would require replacement of some of the ties every two to three years.



## **FINDING OF NO SIGNIFICANT IMPACT**

The Environmental Flight at Avon Park Air Force Range (APAFR) has prepared an environmental assessment (EA). This analysis was conducted in accordance with the *Regulations For Implementing The Procedural Provisions Of The National Environmental Policy Act* (40 CFR Part 1500-1508, 1 July 2006) and the *Environmental Impact Analysis Process* (32 CFR 989, 1 July 2006).

**1.0 NAME OF ACTION** – Construct, operate, and maintain a target enhancement railway.

### **2.0 DESCRIPTION OF THE PROPOSED ACTION**

#### **2.1 Proposed Action**

The Proposed Action would build a mock railway in an inert ordnance target range at Avon Park Air Force Range, Florida. The railway would be approximately 1,750 feet long, 15 feet wide, and would connect two existing targets. The railway would not support locomotives or moving cars, but would support converted flatbed trailers that would occupy static positions to simulate railcars. The railway would not be a target itself, but serve as a landmark for aircrews targeting nearby targets, serve as a landmark for the orientation of friendly ground forces who are directing/coordinating ordnance deliveries and gunnery, and aid in the location of opposition ground forces.

#### **2.2 Alternative Action**

The Alternative Action would be the same as the Proposed Action except that it would locate the railway south of the location identified in the Proposed Action and would be about 1,600 feet long. The Alternative Action was developed because the Proposed Action would be adjacent to habitat of a threatened bird species and at the time of developing the Proposed Action, the environmental consequences to the species were unknown so an alternative route was developed. The Alternative Action would involve construction in jurisdictional wetlands.

#### **2.3 No-Action Alternative**

The No-Action Alternative would not develop the railway. Aircrew ordnance, gunnery, and ground crew training would remain the same in that a railway landmark would not be employed.

### **3.0 SUMMARY OF ENVIRONMENTAL IMPACTS**

#### **Environmental Restoration**

An environmental restoration munitions burial site is near the location of the Proposed Action and nearly adjacent to the Alternative Action. The burial site would be flagged for avoidance during construction of the railway and off limits during railway maintenance activities.

The placement of creosote treated railway ties under the Proposed and Alternative actions would have a slight risk of leaching hazardous organic compounds in the soil.

**Water Resources**

The Proposed and Alternative actions would reduce water infiltration on the railway and channel water, both contributing to minor soil erosion. The Alternative Action would require an environmental resource permit (ERP) from the State of Florida, an authorization from the USACE for construction in wetlands, and a finding of no practicable alternative (FONPA) concurrence from the Air Force's Air Combat Command.

**Geology and Soils**

The Proposed and Alternative actions would increase soil pH on-site with the introduction of clay soils that would comprise the railway bed.

**Vegetation**

The Proposed and Alternative actions would encourage the introduction of off-site plants due to an increase in soil pH. Some of these plants would have the potential to be noxious weeds and would require management for either eradication or control of spread.

**Grazing Management**

The Proposed and Alternative actions would create high ground that would be attractive for cattle to loaf on during the summer wet season. Cattle would be at risk for cutting their legs on the rail flashing.

**Fish and Wildlife**

The construction and maintenance of the railway under the Proposed and Alternative actions would not directly affect threatened and endangered bird species found in the respective impact range. Wildfire ignited by ordnance is always a concern for these species, but since the Proposed and Alternative actions do not increase ordnance deliveries, there would be no adverse effect.

The federally listed threatened eastern indigo snake may occupy the work site and if encountered, should not be harassed and should be allowed to leave the site under its own volition. Inadvertent injury or death of the snake would be reported to the APAFR wildlife biologist. Gopher tortoise burrows, which the indigo snake can inhabit, are found in the locations of Proposed and Alternative actions, more so in the Proposed Action. Due to the narrowness of the railway and spacing of the burrows, the burrows would be avoided for construction under both alternatives. After construction, burrow locations would have to be inspected prior to maintenance activities to determine burrow location/avoidance. If burrows occur and cannot be avoided, consultation with USFWS and Florida Fish and Wildlife Conservation Commission (FFWCC) would be needed to determine possible tortoise relocation.

Based on the information submitted, the Air Force determined that this project would affect, but not likely to adversely affect, the eastern indigo snake. Informal consultation with the USFWS was completed with concurrence that both the Proposed and Alternative actions would likely affect, but not adversely affect the eastern indigo snake.

**Wildland Fire and Prescribed Burns**

Under the Proposed and Alternative actions, the railway ties would be susceptible to burning once every two or three years.

### **Cumulative Effects**

Increased run-off from the Proposed and Alternative actions would slightly increase the erosion of the mock airfield located down slope. The mock airfield is presently maintained annually and the additional erosion could be corrected with scheduled maintenance.

### **Long Term Effects**

The Proposed and Alternative actions would require increased maintenance for the new target infrastructure.

### **Irreversible Commitment of Resources**

Adding clay soil to the project site as described under the Proposed and Alternative actions would increase soil pH. This change in soil pH would remain to some extent even if the clay soil were removed at a later date.

## **4.0 FINDING OF NO SIGNIFICANT IMPACT**

The attached EA was prepared and evaluated pursuant to the National Environmental Policy Act (Public Law 91-190, 42 U.S.C. 4321 et seq.) and IAW CFR 32-989 *The Environmental Impact Analysis Process*. Based on the analysis presented in this EA, the Proposed Action of constructing, operating, and maintaining a target enhancement railway on the North Tactical Range at Avon Park Air Force Range, Florida does not constitute a "major Federal action significantly affecting the quality of the human environment" when considered individually or cumulatively in the context of the referenced act, including both direct and indirect impacts. Also, there are no mitigation measures necessary to implement the Proposed Action. An Environmental Impact Statement (EIS) will not be prepared.

21 MAR 08

Date



HENRY J. SANTICOLA, Colonel, USAF  
Chairperson EPC



## ACRONYMS AND ABBREVIATIONS

ACC	Air Combat Command
AFI	Air Force Instruction
AIRFA	American Indian Religious Freedom Act
APAFR	Avon Park Air Force Range
BDU	bomb, dummy unit
CEQ	Council of Environmental Quality
CFR	Code of Federal Regulations
CZMA	Coastal Zone Management Act
DoD	Department of Defense
EA	environmental assessment
EIS	environmental impact statement
EO	Executive Order
EOD	explosive ordnance disposal
FDEP	Florida Department of Environmental Protection
FGS	Florida grasshopper sparrow
FFWCC	Florida Fish and Wildlife Conservation Commission
FSJ	Florida scrub-jay
FONPA	finding of no practicable alternative
FONSI	finding of no significant impact
HE	high explosive
HMU	habitat management unit
IAW	in accordance with
L <sub>dnmr</sub>	monthly day-night average sound
LF	landfill
MBS	Munitions Burial Site
NAGPRA	Native American Graves Protection Act
NEPA	National Environmental Policy Act
NHPS	National Historical Preservation Act
NRHP	National Register of Historic Places
NRIS	National Register Information System
NRCS	Natural Resources Conservation Service
RCW	red-cockaded woodpecker
SHPO	State Historic Preservation Officer
US	United States
USAF	United States Air Force
USACE	United State Army Corp of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
WG	wing
WSF	weapon safety footprint

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## **1.0 PURPOSE AND NEED FOR ACTION**

The purpose of the Proposed Action and Alternative Action is to construct a railway that would link an existing industrial complex target to an existing ammo storage target. The railway would add to a diversity of landmarks for orientation and identification of targets on an existing tactical target range. The need is for training aircrews. Aircrews frequently rely on realistic landmarks from the air for orientation and confirmation of targets, opposition forces, and friendly forces. Railways are frequently used as landmarks, of which none currently exists at Avon Park Air Force Range (APAFR).

### **1.1 Background**

APAFR is located in Polk and Highlands Counties in Central Florida (Figure 1.1-1). The range complex covers approximately 106,073 acres and is about ten miles east of the town of Avon Park and 15 miles northeast of Sebring, Florida. The major highways serving the range are US Highway 27 and State Route 64. APAFR is the largest bombing and gunnery range east of the Mississippi River. The mission of APAFR is to provide a training infrastructure that allows United States (US) air and ground forces to practice the latest combat training techniques and procedures safely, efficiently, and realistically and to design training facilities that meet training needs. The 23rd Wing (WG), located at Moody Air Force Base in Valdosta, Georgia, is responsible for the operation and maintenance of APAFR, which is assigned to Air Combat Command (ACC). The range is used for bombing and aerial gunnery practice by US Air Force units from throughout the southeast.

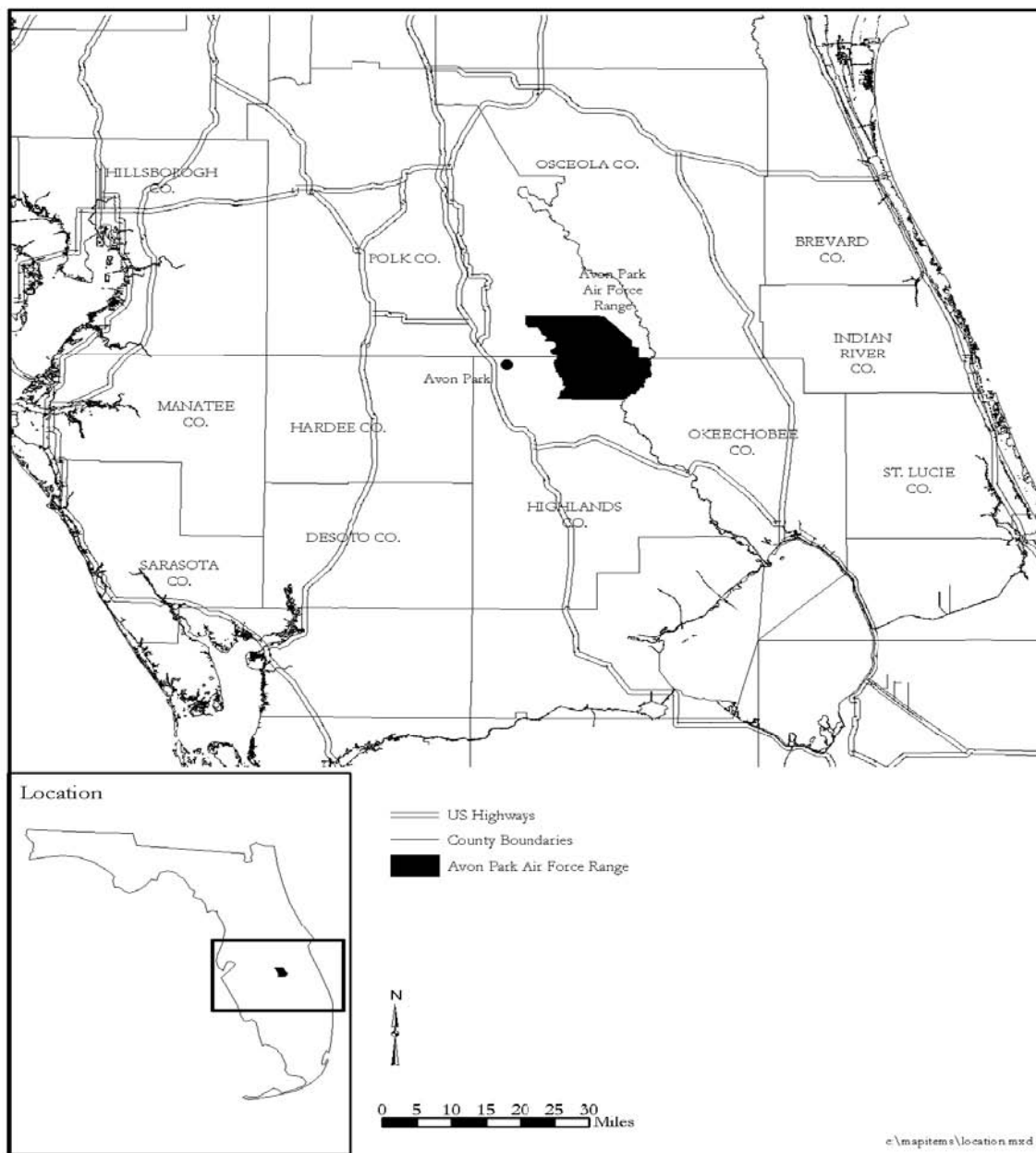


Figure 1.1-1 Avon Park Air Force Range's location in Florida.

## **2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES**

### **2.1 Proposed Action**

The Proposed Action would construct, operate, and maintain a mock railway system on the North Tactical Range (Figure 2.1-1). The railway would originate at the Industrial Complex Target then travel north in a quarter circle around an ephemeral pond, then travel northwest in a straight line until reaching the Ammo Storage Area Target. The railway would be approximately 1,750 feet long and 15 feet wide. The ground surface would be grubbed to mineral soil. The grubbed vegetation and litter layer would be spread and placed adjacent to and south of the railway. The exposed mineral soil would be overlaid with a woven, synthetic plastic polymer mat ten feet wide and rolled out for the entire length of the railway. Clay soil would be overlaid over the mat six to eight inches deep by dump truck, rubber tired dozer, and grader. Placed over the clay would be two to three inches of rock, or crushed tile, or crushed brick. Approximately 700 creosote ties would be placed within the rock or crushed tile or brick. To simulate rails, two parallel runs of aluminum flashing material would be screwed to the ties and run the length of the railway. The railway would not transport vehicles; however, converted flatbed trailers would be placed on the railway to represent rail cars.

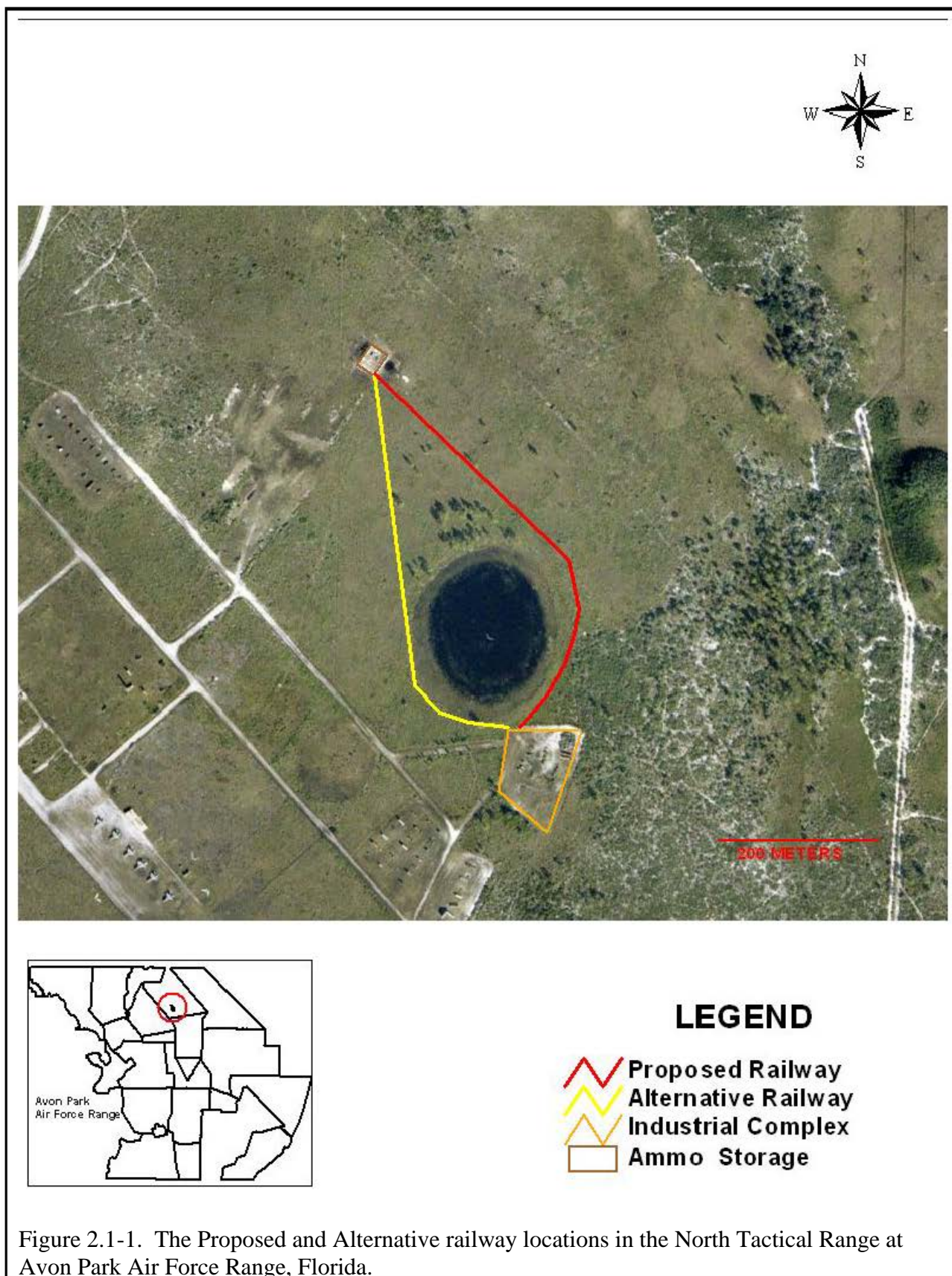
The railway itself would not be targeted, but could inadvertently receive ordnance and gunnery directed at the Industrial Complex or Ammo Storage Area. Ordnance and gunnery directed at these targets from fixed wing aircraft includes:

- the standard 25 lb bomb, dummy unit (BDU) containing a small white phosphorus charge used to visually score ordnance deliveries,
- heavy-weight bombs of 250 or 500 lbs filled with concrete,
- laser guided or Global Positioning System guided bombs with a scoring white phosphorus charge,
- 2.75" and 5.0" rockets with a scoring white phosphorus charge for scoring,
- strafing with 20mm and 30mm machine guns.

Ordnance and gunnery from rotary-wing (helicopters) includes:

- 2.75" and 5.0" rockets with a scoring white phosphorus charge,
- Strafing or door gunnery with 5.56mm, 7.62mm, and .50 cal ball and tracer bullets.

None of the ordnance deliveries carries a high-explosive charge. The railway could be damaged by direct impact from the ordnance or gunnery.



Short term (every one to five years) railway maintenance is anticipated and would include adding rock, crushed brick, or crushed tile and by replacing damaged or deteriorated railroad ties and aluminum flashing. Long term (every ten to 20 years) maintenance would require portions or the entire railway length having the polymer mat replaced and the clay built up.

Construction dates are not firm, but work would commence no later than 2010.

## **2.2 Alternative Action**

The Alternative Action would be very similar to the Proposed Action except that the railway would run west from the Industrial Complex Target for a quarter-circle around an ephemeral pond, then northwest to the Ammo Storage Point for total distance of 1,600 feet. Early in the internal scoping process, it was recognized that the Alternative Action involved filling in isolated wetlands (USACE 1995) (Figure 2.2-1). Following Executive Order 11990 *Protection of Wetlands*, an alternative that constructed infrastructure in wetlands would normally not be pursued; however, the Proposed Action was adjacent to threatened species habitat. Full impacts to this habitat were unknown and given the threatened status of the species, an alternative that avoided the threatened species habitat, yet involved wetlands, was deemed potentially practicable.

## **2.3 No-Action Alternative**

The No-Action Alternative would not develop the railway. The existing Industrial Complex Target and Ammo Storage Point would remain and be utilized as they have in the past.

## **2.4 Alternatives Considered, But Not Pursued**

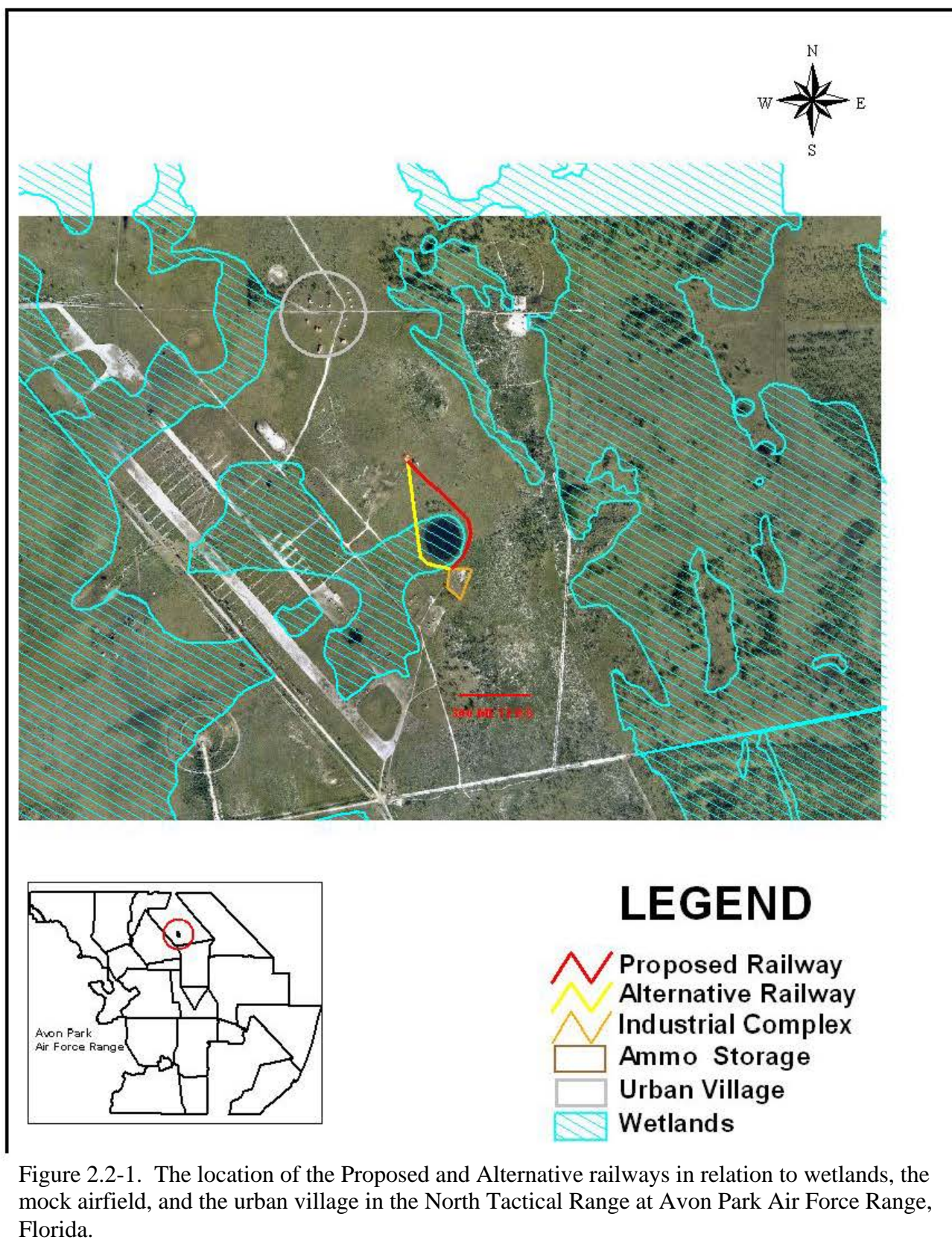
### **2.4.1 Using Alternative Railroad Tie Materials**

When the potential environmental impacts with employing used railway ties were realized, the use of an alternative, non hazardous material for the ties was considered. Given the desired design with close spacing of wood material to represent an actual railway, all considerations for an alternative tie material became cost prohibitive. Therefore employing a substitute material for the ties was not pursued. The potential future cost of disposing of contaminated soil caused by employing used railway ties was considered and accepted in making the decision not to pursue alternative materials.

### **2.4.2 Finding an Alternative Location Further From Wetlands**

An alternative location further from wetlands was considered briefly, but not pursued due to four factors. First, operationally, the location of the Proposed Action and Alternative Action on the North Tactical Range was optimal in that it would be located a sufficient distance away from the mock airfield to the south to avoid confusion with airfield targets, while at the same time located close enough to an urban village to enhance the visual setting of the urban village (Figure 2.2-1). Present combat settings have industrial sites/ammo storage points with a rail network just outside of a village or small city. The current urban village/ammo storage point/industrial complex configuration is realistic. Second, avoiding wetlands would place the ammo storage point/industrial complex/railway too close or too far away from the urban village to be realistic. Third, the proponent desired to work with the existing Industrial Complex and Ammo Storage Point targets to avoid disturbing new ground with new targets. Fourth,





establishing the targets and railway in another alternative that was a realistic location would involve placing the railway in jurisdictional wetlands (wetlands with sufficient nexus to a navigational waterway). Placing the railway in a jurisdictional wetland was viewed as more intrusive than placing the railway in an isolated wetland (wetlands without a sufficient nexus to a navigational waterway) as was done with the Alternative Action. The fourth factor became a mute point because upon further field investigation, it was determined that the wetlands involved in the Alternative Action were jurisdictional.

## **2.5 Required Permits and Coordination**

An environmental resource permit (ERP) would be required from the State of Florida for the Alternative Action. An authorization from the USACE for construction in wetlands and a finding of no practicable alternative (FONPA) concurrence at the Air Force's ACC would be required if the Alternative Action were selected.

APAFR initiated informal consultation with the South Florida Ecological Services Office, USFWS on 2 October 2007 with a "may affect, but no likely to adversely affect" determination to the eastern indigo snake with respective conservation measures. The office responded on 31 October 2007 with a concurrence letter regarding effects and conservation measures (see Appendix B).

The Florida State Clearinghouse was supplied with a draft EA on 8 January 2008 for distribution to state regulating agencies for review and comments. The Clearinghouse responded on 16 January 2008 that the project had minimal impact and is consistent with the Florida Coastal Management Program (see Appendix B).

The draft EA was supplied to local county and city governments. The only response was a no comment response from the Polk County Land Development Division.

The draft EA was supplied to the public in two library locations and announced in one newspaper. No public comments were received.

## **2.6 Acts and Executive Orders Not Applicable to the Project**

The following acts and executive orders are not addressed in this document because they are not applicable to the Proposed Action and alternatives. Justification for not addressing each act or executive order is described.

Marine Mammal Protection Act as amended through 2001 and Magnuson-Stevens Act as amended through 1996 – APAFR is located in the interior of peninsular Florida and does not encompass mammals associated with marine environments. The Magnuson-Stevens Act protects salt water and anadromous fish populations. Water bodies associated with APAFR are fresh water and do not support salt water or anadromous fish populations, including the navigational Kissimmee River. The Kissimmee River is part of the Lake Okeechobee/Everglades watershed.

Executive Order 11988 Floodplain Management – the project location does not occur in a floodplain.

Executive Order 13045 Protection of Children From Environmental Health Risks and Safety Risks and Executive Order 12898 Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations – the project area is located in an ordnance and gunnery impact range that was originally and intentionally located away from human populations. The project itself would not come into contact with any human populations. Noise generated from aircraft using the range and associated airspace has the potential to affect children, minorities, and low income populations, however, the Proposed Action and alternatives would not directly or indirectly change the location, altitudes, numbers, or frequency of noise producing aircraft using the range.

### **3.0 AFFECTED ENVIRONMENT**

#### **3.1 Airspace and Aircraft Operations**

The Proposed Action and Alternative Action have restricted area airspace R-2901 A above them. This airspace starts at ground level and climbs to 14,000 feet above mean sea level. Restricted area airspace excludes commercial and private aircraft from the area during the operating hours of the range. Furthermore, military aircraft authorized to enter the restricted area airspace during operating hours must coordinate with the APAFR range control officer for the use of specific ranges. The reason for the restrictions and coordination is because some of the military training activities are not visibly seen by pilots and therefore require special handling. Non visible training typically includes ordnance deliveries, gunnery, lights-out navigation at night, and parachutists conducting drops at high altitudes with low altitude parachute openings. There are also some visible hazards such as lasers used to guide ordnance and non-piloted surveillance aircraft that do not have the visual capability or quick response time as piloted aircraft. The restricted area airspace above the area of Proposed Action and Alternative could have any of these hazardous conditions, but inert munition drops and gunnery delivered by military fixed wing (airplane) and rotary wing (helicopter) aircraft are the most common.

#### **3.2 Safety**

The project area would be in an inert target range. Personnel and vehicle (ground and aerial) access to the range must be coordinated and granted by the on-duty range control officer. Personnel are not allowed on the range during ordnance or gunnery training delivered by aircraft unless they are part of the exercise. The project area would be within small arms ground fire fans from the urban village to the north and ground-based .50 caliber machine gun firing fans from the south. The project area would also be within firing boxes of inert rockets that are launched from trucks or tracked vehicle carriers. Unauthorized or non-participating personnel would be denied access to the project area during these firing exercises.

#### **3.3 Noise**

Average day-night noise levels for the impact range containing the project area have been determined in terms of Onset Rate-Adjusted Monthly Day-Night Average Sound Level ( $L_{dnmr}$ ).  $L_{dnmr}$  is a measure of average sound over a one month period for 24 hours a day. The  $L_{dnmr}$  considers some of the unique aspects of noise created by low altitude, high-speed flight of military aircraft by adding 5 A-weighted scale (dBA) to the calculated noise levels to account for the rapid onset rate of the noise (Austin and DeVine 2006). The  $L_{dnmr}$  for the impact range containing the project area is 49 dBA (US Navy 2005). The F-16, F-15E, and A-10 jet aircraft are the main contributors of noise at the 49  $L_{dnmr}$ . By way of comparison, the background noise in rural areas is normally considered to be approximately 35 dBA or greater, and typical suburban settings are 45 dBA (Austin and DeVine 2006). Levels over 65  $L_{dnmr}$  are considered annoying. Because inert ordnance makes minimal noise upon impact, blast noise measuring a single ordnance event were not studied for this particular impact range.

The town of Avon Park is the closest community to the target area, approximately 16 nautical miles to the southeast.

Military aircraft access routes to APAFR include both low-level routes and high-altitude

corridors. The high-altitude corridors are used frequently and consequently do not contribute noticeable noise to communities along the access routes. The low-level routes are rarely used because current training doctrine does not call for training at these altitudes and there is potential for bird-air strike hazards.

### **3.4 Air Quality**

APAFR is in an attainment air quality zone for all regulated pollutants. The railway would experience emissions from vehicles, construction maintenance, and ordnance. Air and ground vehicles are considered mobile sources of emission under the Clean Air Act and are not calculated in air emissions. Emissions from ordnance are tracked by the Toxic Release Inventory Data Delivery System (TRI-DDS 2007). Emission releases by ordnance at APAFR are classified as 'Otherwise Use' 'Non-Air Releases.' Values reported for calendar year 2005 are 1,718 pounds of copper and 1,718 pounds of lead.

### **3.5 Environmental Restoration**

The project site is located on an existing impact area with limited public access. Employee access would be available on an as needed basis to accomplish mission tasks. The site is located to the north and to the east of an existing munitions burial site identified as Landfill 101B, Munitions Burial Site (MBS) 29. This site was investigated in 2001 and 2003 by a contractor for the Environmental Restoration Program at APAFR. In late 2006 this site was transferred to the Environmental Compliance Program at APAFR. This site has contaminants of concern for soil, groundwater and surface water. Monitor Well 06 is located at the northern edge of this site. No further action or cleanup is proposed for this site in the future as long as this site remains on an active impact area and the property remains with the federal government.

### **3.6 Water Resources**

The project area occurs in upland and wetland sites. For wetlands, the most noticeable is the depression pond being about six acres in size. The soil description for this depression pond states that water is ponded typically for six months (USDA SCS 1990). Other isolated wetlands are adjacent and west of the pond. They overlay the mock airfield. These are marsh wetlands. While these wetlands are shown on the wetland inventory map (USACE 1995) as being isolated from the jurisdictional wetland to the west, the isolated wetland are not truly isolated because an intermittent drainage ditch in the isolated wetlands connects to the jurisdictional wetlands to the west (Figure 3.6-1). The jurisdictional wetlands connect to Morgan Hole Creek to the west.

The project area is on the top of Bombing Range Ridge with a very mild slope (less than two percent) facing west that directs surface water flow into Morgan Hole Creek. Morgan Hole Creek flows into Arbuckle Creek on the west boundary of the installation. Arbuckle Creek flows into Lake Istapoga. Lake Istapoga flows into the Lake Okeechobee/Everglades complex. The Kissimmee River is listed as an impaired river (poor water quality) by the Florida Department of Environmental Protection under the Clean Water Act.

### **3.7 Geology and Soils**

Two soil series are mapped within the project area. Both are acidic, sandy spodosols. They are Myakka sand (Aeric Haplaquods) and Basinger sand depressional (Spodic Psammaquents). Myakka sand occurs on the uplands and is characterized as a nearly level, poorly drained soil





## LEGEND

-  Proposed Railway
-  Alternative Railway
-  Industrial Site
-  Ammo Storage
-  Urban Village
-  Wetlands
-  Drainage Ditch
-  Contour Lines

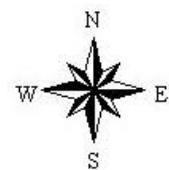


Figure 3.6-1 The location of the drainage ditch that connects wetlands in the project area and to wetlands located to the west.

with a spodic horizon at 24-43 inches below the surface. Myakka sand is the predominant upland soil found at Avon Park Air Force Range and throughout much of south-central Florida. Basinger depressional sand is confined to the depression, and is a poorly to very poorly drained soil with a spodic horizon at 21-52 inches below the soil surface.

No surficial geologic strata are exposed or near the surface within the project area.

### **3.8 Vegetation**

Two plant communities are present within the project area. The uplands are classified as mesic pine flatwoods that have developed on the poorly drained, sandy Myakka soils. Frequent fire has prevented a pine canopy from developing and has maintained an intact, species-rich ground cover dominated by wiregrass (*Aristida beyrichiana*), saw-palmetto (*Serenoa repens*), and runner oak (*Quercus minima*). Florida three-awn (*Aristida rhizomophora*) a rare perennial, rhizomatous grass found only (endemic) in peninsular Florida occurs in association with wiregrass. The fire-frequent mesic uplands within Foxtrot Range are one of a few areas on Avon Park Air Force Range where both species of wiregrass co-dominate. Numerous other endemic grasses and forbs also occur in these nearly treeless pinelands within the project area.

The depression is classified as a sandy depression marsh that is dominated by various herbaceous wetland plants (*Panicum tenerum*, *Xyris elliottii*, *Rhychospora tracyi*, etc.) and St. Johns wort (*Hypericum fasciculatum*). The wetland vegetation is characteristic of a seasonally wet, relatively shallow depression developed in poorly drained sands with little to no muck accumulation.

No federally listed plants are known to occur within the project area. However within less than a ½ mile radius of the project area there are documented occurrences of two state listed plants, the state endangered cutthroat grass (*Panicum abscissum*) and state threatened wild coco (*Pteroglossaspis ecristata*).

### **3.9 Grazing Management**

The proposed project is within the Foxtrot impact area that is also a pasture of grazing management Unit 6. The cattle have access to the project area anytime they are in the pasture.

### **3.10 Invasive Plant Species**

Field surveys (January 2007) revealed no exotic invasive plants within the proposed project area. The clay fill brought in would be clean fill free of invasive plant parts and/or seeds. The tile, rock or brick also would be clean to prevent introduction of unwanted species.

### **3.11 Fish and Wildlife**

#### **3.11.1 Threatened and Endangered Species**

##### **Red-cockaded woodpecker (*Picoides borealis*)**

Approximately 24 active red-cockaded woodpecker (RCW) clusters were recorded on APAFR in 2006, which is the same number recorded in 2004, and is two more than recorded in 2003.

Clusters are dispersed over the entire range with concentrated areas in the north-central/northwest, northeastern, and eastern portions of the installation. Red-cockaded

woodpecker habitat management units (HMUs) overlap portions of the South Conventional, North Tactical, and Charlie Ranges. Red-cockaded woodpeckers have not been identified in South Tactical Range, including the high explosive (HE) area. Based on 2006 survey data, one active RCW cluster is present in the north central portion of the South Tactical Range.

#### **Florida scrub-jay (*Aphelocoma coerulescens*)**

Florida scrub-jay (FSJ) HMUs overlap portions of the North Conventional, North Tactical, and South Tactical ranges with FSJ territories having been documented near some targets in each of the target impact areas except for the South Tactical Range. Although the impact area in the South Tactical Range is not within any HMUs, Florida scrub-jays have been documented in the general area of some targets. Based on 2006 data, a total of eight FSJ territories overlapped North Conventional Range, three were completely within the South Conventional Range, and several were present along the southwestern border of the South Tactical Range.

#### **Florida grasshopper sparrow (*Ammodramus savannarum*)**

The Florida grasshopper sparrow (FGS) populations have been in decline at APAFR since the late 1990s (Delany et al. 2001). Between 1997 and 2002, the population (males and females) on the North Conventional Range declined from 43 to 8 individuals, the population on South Tactical Range declined from 142 to 104 individuals, and the population on Delta Trail Area-OQ Range declined from 113 to 50 individuals. In 2003, the population on North Conventional Range was extirpated. As of 2006, the FGS population on APAFR remains at five birds in OQ Range and six birds in the South Tactical Range.

#### **Eastern indigo snake (*Drymarchon corais couperi*)**

Eastern indigo snakes require a mosaic of habitats. Over most of its range in Florida, the eastern indigo snake frequents diverse habitats such as pine flatwoods, scrubby flatwoods, floodplain edges, sand ridges, dry glades, tropical hammocks, edges of freshwater marshes, muckland fields, coastal dunes, and xeric sandhill communities (USFWS 1999). Eastern indigos also use agricultural lands and various types of wetlands, with higher population concentrations occurring in the sandhill and pineland regions of North and Central Florida.

Indigo snakes have been documented in the northwest corner of the Alpha impact area, and along the perimeter of Alpha, including Alpha Road. Because indigo snakes use a variety of habitats, and have very large home ranges, indigo snakes most likely occur throughout the APAFR. Management of the indigo snake is through general management and maintenance of the habitat, and by implementing the U.S. Fish and Wildlife Service's *Draft Standard Protection Measures for the Eastern Indigo Snake* (USFWS 2002).

On 21 September, 2007, a gopher tortoise burrow survey was conducted in the project areas for the Proposed and Alternative actions, see Appendix C. Gopher tortoise burrows were found in the project areas with nearly three times as many in the Proposed Action's area than the Alternative Action's area. Because the eastern indigo snake commonly occupies vacated tortoise burrows, the presence of burrows is accepted as a strong indicator for the presence of indigo snakes.

#### **3.11.2 Non-Threatened and Endangered Fish and Wildlife**

Small reptiles such as lizards, and small mammals, may have territories in the project site. Some migratory birds may nest in the vegetation. Larger upland mammals, such as deer, feral hogs,



coyotes, and bobcats traverse the area and may stop briefly to forage or hunt. Wading birds forage or hunt in the adjacent ephemeral pond.

### **3.12 Military Training**

The project area is used primarily for targets receiving ordnance and gunnery delivered by aircraft, specifically targets in the Industrial Complex and Ammo Storage Point. While other areas of the North Tactical Range afford ground troop training, the project site itself does not have features that lend itself well to this type of training. Minimal ground troop training occurs in the project area.

### **3.13 Cultural Resources**

#### **Definition of the Resource**

Cultural resources comprise prehistoric or historic sites, districts, buildings, structures, objects, and other evidence of human activity. These include: archaeological resources, historic architectural and engineering resources, and traditional cultural properties. Archaeological resources are locations where human activity has altered the earth or left deposits of physical remains (e.g., stone tools, bottles, structure ruins). Historic architectural and engineering resources include standing buildings, dams, canals, bridges, and roads. Buildings generally must be 50 years or older, although military structures from the Cold War era (1946 to 1989) can be considered significant if they are of exceptional importance to the Cold War military mission. Traditional cultural properties are associated with the practices and beliefs of a living community. Significant cultural resources are those that are eligible or potentially eligible for inclusion in the National Register of Historic Places (NRHP) or that are important to traditional groups as outlined in the *American Indian Religious Freedom Act* (AIRFA), the *Native American Graves Protection and Repatriation Act* (NAGPRA), and Executive Order 13007 *Indian Sacred Sites*. Cultural resources that are unevaluated for NRHP-eligibility are treated as potentially eligible until evaluation is complete.

The U.S. Air Force is required to comply with Section 106 of the *National Historic Preservation Act* (NHPA), including the State Historic Preservation Officer (SHPO) and American Indian consultation, during the environmental analysis (EA) process. In 1999, the DoD promulgated its American Indian and Alaska Native Policy that emphasizes the importance of respecting and consulting with tribal governments on a government-to-government basis. The policy requires an assessment, through consultation, of the effect of proposed DoD actions that may have the potential to significantly affect protected tribal resources, tribal rights, and Indian lands before decisions are made by the armed services.

#### **Identified Cultural Resources**

As of 2007, more than 150 cultural resources consisting of prehistoric, historic, and multicomponent sites had been recorded on APAFR. Of these sites, 23 were determined to be eligible or potentially eligible for the NRHP. Currently, no resources on APAFR are listed in the NRHP (NRIS 2007). In 2004 Parsons Engineering, Inc. conducted a Phase I cultural resources survey of areas within Bravo Range including the area of potential effect for this project. The report was accepted as complete and sufficient by the Florida SHPO on 20 October, 2005.

No cultural materials were identified within the proposed area of potential effect. This survey

completed a minimum of at least a Phase I Cultural Resources Assessment Survey for all land involved in the project.

There are no known traditional cultural properties on APAFR associated with American Indian traditions or beliefs (USAF 2003). One Euro American traditional cultural property, Fort Kissimmee Cemetery, is associated with the earliest Euro American settlers of the region. Members of the Fort Kissimmee Cemetery Association retain ownership of the parcel of land containing the cemetery, as well as a small piece of property that extends to the Kissimmee River. The Association maintains the cemetery and continues to inter their dead at that location (USAF 2003).

### **3.14 Wildland Fire and Prescribed Burns**

The project site is located in Burn Unit 6C6. Burn Unit 6C6 is 1,899 acres and contains several fuel types. The dominate fuel types are Fuel Model 2 – a mixture of grass and shrub and in the depression marsh itself, Fuel Model 3 – tall grass (Andersen 1982). These fuel models typically burn once every three years. Being in an impact range, the fire frequency can be as frequent as once every two years. The unit was last burned in May 2006 as a wildfire.

### **3.15 Coastal Zone Management**

The Coastal Zone Management Act (CZMA) of 1972 is administered by the Florida Department of Environmental Protection (FDEP). FDEP implements CZMA under 23 state statutes that protect and enhance natural, cultural, and economic coastal resources. APAFR lies within two counties that despite being inland, are still considered coastal counties by FDEP. FDEP's main management focus for inland counties is water quality of creeks and rivers that reach estuaries.

Two waterways border APAFR – Arbuckle Creek to the west and the Kissimmee River to the east. These waterways are in the Lake Okeechobee/Everglades watershed. Water from Lake Okeechobee flows through the everglades either as surface water flow or in man made canals. Both the surface flow and canals reach ocean waters.

## **4.0 ENVIRONMENTAL CONSEQUENCES**

### **4.1 Airspace and Aircraft Operations**

The Proposed Action, Alternative Action, and No-Action Alternative would have no effect on airspace. There would be no changes for the location, duration, and time of the exercise for aircraft that would use the airspace.

### **4.2 Safety**

The Proposed Action, Alternative Action, and No-Action Alternative would have no impacts to human safety.

### **4.3 Noise**

The Proposed Action and Alternative Action would generate noise with earth moving and construction equipment during target construction. The area is isolated with no human noise receptors other than personnel involved with the construction. The construction personnel would have personnel protection equipment to minimize impacts from noise. Noise impacts would be marginal. The No-Action Alternative would have no noise impacts.

### **4.4 Air Quality**

#### Proposed Action

The Proposed Action would result in some fugitive dust and diesel exhaust emissions from the construction activities. The impact would be minimal to the air quality in the area. Once the construction is completed, no other emissions would occur except during yearly maintenance and/or inspection activities.

#### Alternative Action

The Alternative Action would have a little less impact as the proposed action due to the proposed railway length being shorter and therefore taking less construction time.

#### No-Action Alternative

There would be no affect on the air quality as the construction work would not be accomplished.

### **4.5 Environmental Restoration**

#### Proposed Action

The Proposed Action would be located to the north and east of the munitions burial site. Since there would be a potential, although very slight, for employee exposure to the contaminants if the site was disturbed, the area would be flagged and access would be restricted during construction. Once construction is completed, this area would remain off limits to maintenance personnel. When the target construction would be completed, the potential does exist for a stray dummy bomb to hit an existing monitoring well. If the well is damaged, it would be repaired. USAF explosive ordnance disposal (EOD) personnel annually sweep the surface of the burial unit identifying new unexploded (inert spotting charges) ordnance for destruction.

The construction of the Proposed Action would have the potential to impact environmental compliance issues. The presence of heavy construction equipment on the target site could have the potential for small hydraulic or fluid leaks. Daily operator checks of the equipment will

minimize the risk of leaks. The use of on-site spill containment kits would minimize fluid loss to the soil. Spills reaching the soil would be reported to APAFR Civil Engineering Environmental Compliance and cleanup would occur as described in *Spill Prevention, Control, and Countermeasure Plan*, APAFR (URS 2004). Coordination with the Environmental Flight would be initiated.

The placement of railroad ties on the site may leach hazardous organic compounds into the rocks, soil and clay that would make up the base for the tracks. The placement of a fabric barrier and the clay would restrict/retard movement into the subsurface soil.

#### Alternative Action

The alternative would have the potential to impact the munitions burial site to a greater extent as the location of the track is closer to the site boundary. The rest of the action is the same as the proposed action.

#### No-Action Alternative

The No-Action Alternative would have no impact on the environment.

### **4.6 Water Resources**

#### Proposed Action

The Proposed Action would build the railway more upslope towards the “divide” on Bombing Range Ridge and therefore intercept/retain less surface water run-off than the Alternative Action. Still, surface water run-off from the higher elevation scrub community to the southeast would flow west and be intercepted by the new railway. The surface water would then be diverted south along the railway until reaching the Industrial Complex target. Therefore erosion may be increased to a limited extent in the Industrial Complex. The erosion would be minimized by the use of silt fences during and after construction when the disturbed area would be naturally revegetated. The depression marsh would have a minor increase in suspended solids from runoff by the clay material found in the railway. Again, the use of silt fences down slope of the railway would filter out and retain the suspended solids during and after construction. No construction would occur in wetlands.

#### Alternative Action

The railway would intercept/retain more surface water run-off than the Proposed Action, especially below the depression marsh, and would require more maintenance on the railway due to soil erosion during high rainfall events. The use of silt fences would minimize erosion and suspended solid transport.

#### No-Action Alternative

The No-Action Alternative would not impact water resources.

### **4.7 Geology and Soils**

#### Proposed Action

Under the Proposed Action there would be displacement and disturbance of the soils associated with removal of the native vegetation and site preparation activities. The disturbance would be minimized by the use of silt fences. Furthermore the placement of off-site soil material (clay and

or other foreign fill material) will ultimately change the soil chemistry within the immediate vicinity of the fill. The soils would be expected to become less acid with the addition of clay and or other calcareous fill material.

#### Alternative Action

The impacts for the Alternative Action would be the same as those for the Proposed Action.

#### No-Action Alternative

No change or alteration of the soils would occur under the No-Action Alternative.

### **4.8 Vegetation**

#### Proposed Action

Under the Proposed Action the native, intact ground cover vegetation characteristic of a mesic pineland would be removed and replaced by ruderal disturbance adapted vegetation. The placement of off-site soil material (clay and or other foreign fill material) will ultimately change the vegetation of the site ruderal flora dominated by calcareous plants not found in an acidic, mesic pineland.

#### Alternative Action

The impacts for the Alternative Action would be the same as those for the Proposed Action.

#### No-Action

There would be no impacts from the No-Action Alternative.

### **4.9 Grazing Management**

#### Proposed Action

The direct impact to the grazing resource (loss of forage) by the project would be little. However, the flashing proposed to simulate the rails may cause a hazard to the livestock. The flashing has sharp edges that may injure the livestock. This risk of injury would increase if the grade is elevated. The cattle would use the “high” ground to bed on thus increasing the exposure to the sharp edges. Wildlife would also be exposed to the same type of injuries. The introduction of clay and/or other fill would change the chemistry of the site that would affect the vegetation mix that may result in less forage and/or less palatable forage.

#### Alternative Action

Under the alternative the impact to grazing management would be the same as the Proposed Action.

#### No-Action Alternative

The No-Action Alternative would not change or alter the grazing management on the site.

### **4.10 Invasive Plant Species**

#### Proposed Action

Under the Proposed Action, the potential for invasive plants species invasion would be increased because of the disturbed soil and the fill. The area would be monitored and if invasive exotics detected, the areas would be treated (usually chemical) to eradicate the invasive exotics.

#### Alternative Action

The Alternative Action would result in the same increase in the potential for invasive plants species. Invasive exotics would require treatment.

#### No-Action Alternative

The No-Action Alternative would not change or alter the potential of invasive plants species on the site.

### **4.11 Fish and Wildlife**

#### **4.11.1 Threatened and Endangered Species**

##### Proposed/Alternative Actions

##### **Red-cockaded woodpecker (*Picoides borealis*)**

The proposed area of action is less than 1 km from the closest active RCW territory, but falls outside of the flatwoods community and is therefore unlikely to impact the population directly. While there is an indirect risk of a wildfire originating from delivered ordnance near the project area, spreading to the RCW territory and burning cavity/nest trees, the railway is not a target and therefore would not increase or decrease ordnance deliveries in the project area. There is no increase or decrease of indirect wildfire impacts. There is no effect to the RCW.

##### **Florida scrub-jay (*Aphelocoma coerulescens*)**

The proposed area of action is within one kilometer of the closest FSJ territory to the southwest. The action area abuts a scrub patch of roughly 3,200 square meters, contiguous with occupied scrub habitats around Observation Point One. No direct or indirect impacts are anticipated. The indirect risk of wildfire originating from ordnance is the same as with the RCW. There is no effect to FSJ.

##### **Florida grasshopper sparrow (*Ammodramus savannarum*)**

The current FGS population does not extend in the North Tactical Range and is therefore unlikely to be impacted by either construction or use of the proposed railway feature. There is no effect to FGS.

##### **Eastern indigo snake (*Drymarchon corais couperi*)**

Impact to eastern indigo snake may come in the form of harassment, injury, and direct mortality due to the construction and maintenance activities. APAFR entered informal Section 7 consultation with the USFWS and acknowledged the possibility of affecting the indigo snake, but not likely to adversely affect the snake. The USFWS concurred (see Appendix B). Due to the narrowness of the railway and position of the burrows, APAFR has determined that the railway could be constructed under the Proposed and Alternative actions without damaging burrows, but the construction and maintenance noise activities may disturb the snake so that the snake may temporarily relocate until construction or maintenance activities would be complete. APAFR offered to the USFWS precautionary measures that would include flagging burrow locations during construction, operator training for identification and avoidance of the indigo snake, and reporting if any indigo snake is harmed or killed during construction or maintenance activities. There would be fewer burrows encountered under the Alternative Action.

##### No-Action Alternative

The No-Action Alternative would not impact RCWs, FSJ, FGS, or eastern indigo snake positively or negatively.

#### **4.11.2 Non-Threatened and Endangered Fish and Wildlife**

Any possible impacts to wildlife in general would be similar to that mentioned for the listed species, vegetation disturbance and digging. Avoidance of any gopher tortoise burrows would prevent any other species, such as lizards and small mammals from being impacted. Any migratory birds nesting in the vegetation could be impacted by disturbance. Avoiding the nesting season would minimize these possible impacts.

#### **4.12 Military Training**

The Proposed Action and Alternative Action would enhance military training by offering a landmark for aircrews and for ground crews who are directing ordnance and gunnery for aircrews. The No-Action Alternative would have no negative effect to military training.

#### **4.13 Cultural Resources**

##### **Proposed and Alternative Actions**

All of the areas effected by the proposed actions have had Phase I cultural resources assessment surveys completed. Within the surveyed area, no cultural resources have been identified. The Proposed Action would have no effect on cultural resources.

The APAFR Cultural Resources Program Manager determined that, due to the limited ground disturbance and the previous cultural resources survey, none of the proposed actions have the potential to effect historic properties. According to Air Force Instruction (AFI 32-7065 1.410.4 *Cultural Resources Management*) and the Code of Federal Regulation (CFR 800.8(3) *Protection of Historic Properties*), no formal SHPO or Native American Tribal consultation is required. Therefore, no SHPO or Native American Tribal Consultation was conducted for this EA.

##### **No-Action Alternative**

The No-Action Alternative would have no effect on cultural resources.

#### **4.14 Wildfire and Prescribed Burning**

The Proposed Action and Alternative actions would create a fuel break in the burn unit that may require separate fire ignition during prescribed burns, but this would be a minor modification to the burn prescription. During wildfires, the Proposed Action and Alternative Action could be used as a fuel break for fire suppression, but wildfires are rarely suppressed within impact ranges. The wooden railway ties would be susceptible to burning every two to three years by wildfires and prescribed burns.

The No-Action Alternative would not create a fuel break and would not change the methodology of prescribed burns.

#### **4.15 Coastal Management**

The Proposed Action, Alternative Action, and No-Action Alternative would be in compliance with the Florida Coastal Zone Management Plan and would have no adverse affects on coastal zones.

#### **4.16 Cumulative Impacts**

There is a mock airfield located downslope of the project area that erodes and requires annual redisking or earth moving of on-site materials for repair and vehicle access for target maintenance. The Proposed Action and Alternative Action would mildly exasperate the erosion on the mock airfield by replacing native sod (having good water infiltration properties) with the railway and ruderal adapted vegetation (having poor water infiltration).

The No-Action Alternative would not contribute to cumulative erosion impacts.

Overall range use at APAFR is projected to increase long term by 16 to 32% with additional training by the Navy (US Navy 2005). Tentatively this training would start in 2008. Much of the additional training would occur on a high explosive impact range and would not use the inert impact range where the railway would be established. However, some of the increased Navy training would use the inert range with inert ordnance deliveries and utilize the proposed railway as a landmark. The increased ordnance deliveries were assessed in the Navy EIS (US Navy 2005).

#### **4.17 Relationship Between Short-term Use of the Environment and the Maintenance and Enhancement of Long-term Productivity**

Establishing the railway could preclude ordinance and gunnery training on the North Tactical Range during construction, but this would generally be avoided by having construction occur during non-training days or when the South Range Complex could be used as a training alternative. Long term maintenance would be increased with the action alternatives. Currently, with the project area being a mesic pineland, the only maintenance activity is prescribed burning. As a railway, long term maintenance would require material replacement, occasional railway grade recontouring, and the potential for treating invasive, noxious weeds.

#### **4.18 Irreversible and Irretrievable Commitment of Resources**

Fossil fuels burned by earth moving and construction equipment would be irretrievable. The introduction of clay leaves an irreversible change in soil pH. Even if the clay were removed at a later date, residual clay mixed in the soil would result in a high pH and a respective change in the vegetative plant community.

#### **4.19 Direct and Indirect Effects**

The direct effect of the Proposed Action and Alternative actions is that native mesic pineland is replaced with a mock railway. Indirect effects would include a slight increase in stormwater runoff, a slight increase in dissolved solids in stormwater runoff, a potential for injury to cattle by the metal strips simulating the railway rails, a certainty for increasing the soil pH in the project area with the strong likelihood of establishing plants not found in the mesic pineland to include noxious weeds that would require treatment for control. The increased runoff would likely increase maintenance disking and recontouring of the mock airfield located downslope of the project area.



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## **APPENDIX A: GOVERNMENTS AND PUBLICS CONTACTED**

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**APPENDIX B: RECORD OF CONSULTATION WITH GOVERNMENTS AND  
PUBLICS**



## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
South Florida Ecological Services Office  
1339 20<sup>th</sup> Street  
Vero Beach, Florida 32960



October 31, 2007

Lieutenant Colonel John B. Pechiney  
Department of the Air Force  
23 WG, DET 1, OL A/CEVN  
Avon Park Air/Ground Training Complex (ACC)  
Avon Park Air Force Range, Florida 33825

Service Federal Activity Code: 41420-2008-FA-0109  
Service Consultation Code: 41420-2008-I-0015  
Applicant: United States Air Force  
Dated Received: October 2, 2007  
Project: Mock Railway  
County: Polk

Dear Colonel Pechiney:

The Fish and Wildlife Service (Service) has reviewed the information presented in your correspondence and attachments dated October 2, 2007, regarding the proposed mock railway on Avon Park Air Force Range (APAFR).

You have determined the proposed activity "may affect but is not likely to adversely affect" the eastern indigo snake. This letter represents the Service's views on the effects of the proposed action in accordance with the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

The Service understands:

The Air Force is planning to construct a simulated railroad target at the North Tactical Range. The proposed railway would connect two existing targets. The railway would not support locomotives or moving cars, but would support converted flatbed trailers that would occupy static positions to simulate railcars. The railway would not be a target itself, but serve as a landmark for aircrews targeting nearby targets, and as a landmark for the orientation of friendly ground forces who are directing/coordinating ordnance deliveries and gunnery, and aid in the location of opposition ground forces. Two alternatives, approximately the same length, are being considered.

Air Force and Service personnel conducted a gopher tortoise (*Gopherus polyphemus*) burrow survey on September 21, 2007. The results of the survey indicate eastern indigo snakes (*Drymarchon corais couperi*) could potentially occupy the site.

The Air Force agrees to the following conservation measure to avoid adverse effects to eastern indigo snakes:



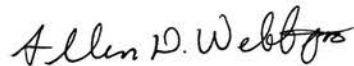
- (1) All personnel involved with the construction of the target will receive training on protection measures for the indigo snake. Training will include: (a) a description of the eastern indigo snake, its habits, and protection under Federal Law; (b) instructions not to injure, harm, harass, or kill this species; (c) directions to cease clearing activities and allow the eastern indigo snake sufficient time to move away from the site on its own before resuming clearing; and (d) telephone numbers of Air Force and Service personnel to be contacted if a dead eastern indigo snake is encountered.
- (2) Active tortoise burrows along the selected route will be flagged and avoided.
- (3) An eastern indigo snake monitoring report will be submitted within 60 days of the conclusion of clearing phases. The report will be submitted whether or not eastern indigo snakes are observed.

Based on the above measures prepared by the Air Force, the Service concurs that the proposed project may affect, but is not likely to adversely affect the eastern indigo snake. The proposed action is small in scale and does not reach the level where take is likely to occur. The Service bases our concurrence on the best available information, specifically your memorandum of October 2, 2007, the gopher tortoise survey results for the proposed action, the South Florida Multi-Species Recovery Plan (Service, 1999), and conversations and correspondence with project proponents.

This letter fulfills the requirements of the Act and no further action is required. If modifications are made to the proposed action or, if additional information involving potential effects to listed species becomes available, please notify our office.

The Service appreciates your past monitoring and conservation efforts for listed species on APAFR. Your continued conservation management is vital to maintaining eastern indigo snake and other listed species. If you have any questions regarding this project, please contact Mark Fredlake at 863-452-4164.

Sincerely yours,



Paul Souza  
Field Supervisor  
South Florida Ecological Services Office

cc:  
Department of the Air Force, APAFR, Florida (Paul Ebersbach)

**LITERATURE CITED**

U.S. Fish and Wildlife Service [Service]. 1999. South Florida Multi-Species Recovery Plan.  
U.S. Fish and Wildlife Service; Atlanta, Georgia.

**AFFIDAVIT OF PUBLICATION  
THE LEDGER  
Lakeland, Polk County, Florida**

Case No's:

STATE OF FLORIDA)  
COUNTY OF POLK)

Before the undersigned authority personally appeared Paula Freeman, who on oath says that she is Inside Classified Sales Manager The Ledger, a daily newspaper published at Lakeland in Polk County, Florida; that the attached copy of advertisement, being

Notice to Public

in the matter of Finding of No Significant Impact

Concerning Mock Railway for Training / Avon Park Air Force Range

was published in said newspaper in the issues of 1-16: 2008

Affiant further says that said The Ledger is a newspaper published at Lakeland, in said Polk County, Florida, and that the said newspaper has heretofore been continuously published in said Polk County, Florida, daily, and has been entered as second class matter at the post office in Lakeland, in said Polk County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

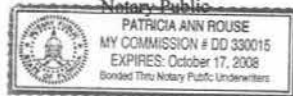
Signed.....  
Paula Freeman  
Inside Classified Sales Manager  
Who is personally known to me.

Sworn to and subscribed before me this 16<sup>TH</sup>

day of January A.D. 2008

.....  
Patricia Ann Rouse

Notary Public



(Seal)

My Commission Expires.....

A676 LK03849806

NOTICE TO THE PUBLIC  
OF FINDING OF NO SIGNIFICANT IMPACT  
January 16, 2008

23 WG DET, 1 OL A/CEV  
29 South Blvd

Avon Park Air Force Range, FL 33825-5700

TO ALL INTERESTED AGENCIES, GROUPS, AND PERSONS

The U.S. Air Force proposes to create a mock railway for the training of aerial ordnance and gunnery deliveries in an impact range at Avon Park Air Force Range, Florida. Environmental impacts associated with the construction and maintenance of the mock railway were analyzed in a draft environmental assessment (EA) with a preliminary finding of no significant impact (FONSI). Copies of the draft EA and FONSI are available for review and comment until February 15, 2008 at the public libraries located at 100 North Museum Avenue in Avon Park and 15 North Magnolia Avenue in Frostproof. Please submit written comment to Tod Zechiel at the address listed above or by email to [Tod.Zechiel@avonpark.madill.af.mil](mailto:Tod.Zechiel@avonpark.madill.af.mil). Questions? Contact Tod Zechiel at 863-452-4119, ext. 33.

A676 1-16: 2008





## Florida Department of Environmental Protection

Marjory Stoneman Douglas Building  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

January 16, 2008

Mr. Tod P. Zechiel, NEPA Program Manager  
OL A DET 1, 23 WG/CEVN  
29 South Boulevard  
Avon Park AFR, FL 33825-9381

RE: Department of the Air Force - Draft Environmental Assessment for the Target  
Enhancement Railway at Avon Park Air Force Range - Polk County, Florida.  
SAI # FL200801113943C

Dear Mr. Zechiel:

Florida State Clearinghouse staff, pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act, 42 U.S.C. §§ 4321, 4331-4335, 4341-4347, as amended, has reviewed the referenced draft environmental assessment (EA).

Based on the information contained in the draft EA and minimal project impacts, the state has determined that the proposed project is consistent with the Florida Coastal Management Program. Please continue to consult with the U.S. Fish and Wildlife Service and Florida Fish and Wildlife Conservation Commission regarding the avoidance of impacts to gopher tortoises, their burrows and eastern indigo snakes.

Thank you for the opportunity to review the proposed project. Should you have any questions regarding this letter, please contact Ms. Lauren P. Milligan at (850) 245-2170.

Yours sincerely,

Sally B. Mann, Director  
Office of Intergovernmental Programs

SBM/lm

## **APPENIX C: MOCK RAILWAY TORTIOSE SURVEY REPORT DRAFT**

Participants: Ericka (sca volunteer), Brent Bonner, Tod Zechiel, Hal Thompson (volunteer) and myself.

Date: September 19, 2007.

The survey objective was to identify and locate all gopher tortoise burrows within ten meters of both alternative routes.

Start of survey: approximately 7:45 AM. Survey completed: approximately 9:30 AM.

Method: Tod and I gave a briefing on the purpose of the survey, tortoise burrow identification, and general safety.

The survey method utilized is that recommended in the Florida Fish and wildlife Commission in the Gopher Tortoise management Plan dated May, 2007. Due to the number of participants we modified the survey method to allow for a 20 meter survey width.

We counted tortoise burrows with the following characteristics:

- 1) The hole has a “half moon” shape with a flat bottom and arched roof, width approximately twice the height, and a mound of sand in front of the entrance.
- 2) The bottom of the burrow may be rutted by erosion, but the burrow should not be circular (often indicates an armadillo burrow) or very irregular in shape.
- 3) Debris can occlude the burrow opening, but the roof should not be collapsed, and live or dead rooted vegetation should not be present at or near the base of the opening.

Brent established and maintained the course with a hand held Trimble GPS unit; over the centerline of the proposed mock railway. The four other participants spaced themselves two abreast on either side of the center line about 5 meters apart. Due to the number of participants we were able to survey a width of approximately twenty meters, or approximately 65.6 feet.

The survey team began at the southern end of alternative route A and proceeded northward. When this route was completed the survey team walked back to the starting point along route B. The routes were walked at a slow pace with everyone searching for gopher tortoise burrows. When one was encountered all would stop until Brent could get a GPS location of the discovered burrow. Burrows were classified as active or inactive. One unclassified hole, possibly armadillo, was noted. Decisions regarding the classification of the questionable hole were arrive at by group consensus.

Alternative A was approximately 1867 feet. The alternative B was approximately 1737 feet. The total acreage surveyed equaled approximately 5.6 acres.

Results: The results of the gopher tortoise survey are displayed in figure one. Seventeen

burrows, seven active and ten inactive, were found within ten meters of route A and five burrows, one active and four inactive, were found along route B. Burrows were often found where the ground was slightly elevated in clumps of scrubby oak and palmetto. Several burrows were also found at the edge of small ordnance craters.

Comments: This survey method is well suited to habitats that have been recently treated with prescribed fire. It is likely that we achieved a complete survey of the proposed routes due to the low stature of the vegetation. In areas where palmettos, gallberry, and other shrubs impede vision, the survey would have taken much longer and doubtless have missed some burrows. Obviously route B is likely to have the least effect on gopher tortoise and eastern indigo snake. However it is possible that, with some minor modification in direction, we could avoid nearly all burrows in the path of route A as well.

Thanks to all who participated and to Brent for data entry and map preparation.

Mark Fredlake.

