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Environmental Assessment for Providing T-6 JPATS Solo Capability at Navy Outlying Landing Fields Naval Air Station Whiting Field, Florida



August 2010

Draft

**Environmental Assessment
for Providing T-6 JPATS Solo Capability at
Navy Outlying Landing Fields
Naval Air Station Whiting Field, Florida**

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EXECUTIVE SUMMARY

ENVIRONMENTAL ASSESSMENT FOR PROVIDING T-6 JPATS SOLO CAPABILITY AT NAVY OUTLYING LANDING FIELDS NAVAL AIR STATION WHITING FIELD, FLORIDA

The purpose of the Proposed Action is to expand two existing Navy outlying landing fields (NOLFs) in the South Military Operating Area for Naval Air Station Whiting Field (NASWF) with extended runway lengths and clear zones sufficient to support training with the T-6 aircraft which is replacing the current T-34 aircraft at NASWF. The Proposed Action is needed to efficiently transition NASWF fixed wing flight training to the Joint Primary Aircraft Training System (JPATS) T-6 aircraft, which requires longer runways for safe operations.

The Proposed Action would be to acquire approximately 203 acres of private land around Navy outlying landing fields (NOLFs) Barin and Summerdale, and modify the runways at both NOLFs to accommodate T-6 operations. Both runways at Barin NOLF would be extended to 5,000 feet to accommodate T-6 solo operations, and Runways 10-28 and 4-22 at Summerdale NOLF would be extended to 4,000 feet for dual T-6 operations. At the ends of the modified runways at both NOLFs, 1,000-foot long Type I Clear Zones and 2,000-foot long Type III Clear Zones would be acquired by the Navy and maintained. Type I Clear Zones would be cleared of trees and shrubs, as well as structures, and graded to allow run-out of aircraft past the end of the runway. No trees above the calculated approach/departure surface or structures would be allowed in Type III Clear Zones. Civilian structures located within the runway extensions and clear zones would be removed, and two roads would be removed and relocated outside of the 1,000-foot Type I Clear Zones at both fields. Existing runway lighting at Barin NOLF would be expanded to include the additional runway lengths.

Nine alternative actions were evaluated to meet the purpose and need for the project, all involving the extension of existing runways or construction of new runways at NOLFs Barin, Summerdale, Silverhill, Wolf and Choctaw. Some alternatives were fully evaluated in the EA, despite the fact that certain impacts would invalidate their use to meet the purpose and need for the project, in order to document all resources and impacts for those NOLFs. The Proposed Action was chosen based on the best combination of operational requirements, environmental impacts and human socioeconomic impacts of all of the alternatives evaluated.

Based upon the results of this Environmental Assessment, the Proposed Action would not have a significant adverse effect on the environment.

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SECTION 1.0
PURPOSE AND NEED FOR ACTION



1.0 PURPOSE AND NEED FOR ACTION

1.1 INTRODUCTION

Naval Air Station Whiting Field (NASWF) supports primary flight training for Naval aviators using the single engine turboprop T-34, utilizing a number of Navy outlying landing fields (NOLFs) for mission training requirements (Figure 1-1). The T-6, also a single engine turboprop aircraft, has been selected as the new Joint Primary Aircraft Training System (JPATS) aircraft for the combined joint military forces in the United States (US). The T-6 will gradually replace the T-34 between 2009 and 2015. Unlike the T-34, the propellers of the T-6 cannot be reversed to slow the aircraft after landing, and the brakes/tires are not conducive for landings on shorter fields suitable for the T-34. The T-6 requires a minimum safe runway length of 4,000 feet for dual operations and 5,000 feet for solo operations (Chief of Naval Air Training [CNATRA] Instruction 3710.17A; CNATRA 3700 Ser N38/0577, 10 August 07).

By contrast, the T-34 requires only a 3,000-foot long runway for operations. The T-6 is also more restricted than the T-34 in operations involving cross-winds, with lower thresholds for cross-wind components that could jeopardize pilot safety. The T-6 does have pilot ejection seats for emergency exit from the aircraft, which the T-34 lacks. A comparison summary of specifications for the two aircraft can be found in Table 1-1.

In addition to the safe runway length, a 1,000-foot long obstruction-free run-out safety zone (Type I Clear Zone) is required at the ends of the runway, with another 2,000 feet of clear zone (Type III Clear Zone) beyond the run-out safety zone. The Type III Clear Zone cannot have trees taller than the calculated approach/departure surface or buildings. The runway specifications and clear zones are mandated by the Unified Facilities Criteria (UFC) for Airport and Heliport Planning and Design developed by the U.S. Army Corps of Engineers (USACE), the Air Force Civil Engineer Support Agency (AFCEA 2006) and the Naval Facilities Engineering Command (NAVFAC) (UFC-3-260-01, modified 19 May 2006). The Type III Clear Zone is mandated for safety, since this area is a relatively high accident potential zone (APZ), if an accident should occur. Type II Clear Zones are only required for Class B runways used by jet aircraft, and are not required for the Class A runways used by the NASWF turboprop aircraft.



T-34 Turbo Mentor



T-6 Texan II

Table 1-1. Comparison of T-34 and T-6 Specifications

Specifications	T-34C	T-6
Maximum Speed	280 knots	316 knots
Approach Speed	120 knots	120 knots
Range (nautical miles)	400	850
Maximum Altitude	25,000 feet	31,000 feet
Engine Power (shp)	425	1,100
Engine Type	Single Turboprop	Single Turboprop
Reversible Propeller (for braking)	Yes	No
Pilot Ejection Seats	No	Yes
G Limits	+4.5 to -2.3	+7.0 to -3.5
Weight (pounds)	4,400	6,900
Length	28 feet 8 inches	33 feet 4 inches
Wing Span	33 feet 5 inches	33 feet 5 inches
Height	9 feet 11 inches	10 feet 8 inches

NASWF 2009

NASWF maintains a North Military Operating Area (MOA) and a South MOA in order to provide flexibility for operations in the event of local weather restrictions. Currently in the North MOA, there is one civilian airfield, leased by the Navy for a NOLF, that will meet T-6 landing requirements (Brewton); and Evergreen NOLF (also called Middleton Field), also a civilian field, is being modified to meet T-6 landing requirements. Both Brewton and Evergreen have general aviation (GA) traffic requiring restrictions for Navy use. Of the seven existing NOLFs available for fixed-wing aircraft use in the NASWF South MOA, only Choctaw NOLF, located on Eglin Air Force Base (AFB), has a runway length and other capabilities suitable for T-6 solo operations; however, at least two NOLFs in the South MOA would be necessary for the transition to the T-6 aircraft in order to maintain the required training mission.



Figure 1-1: Vicinity Map

The intent of the environmental assessment (EA) is to assess and disclose the known and potential environmental consequences, both beneficial and adverse, of the proposed modification and expansion of NOLFs in the NASWF South MOA to meet operational requirements for the T-6. Key issues to be analyzed in the EA are the potential impacts of the acquisition of additional private property at selected NOLFs to accommodate the expanded runways, associated construction of new facilities and infrastructure at the NOLFs and in the vicinity, and environmental impacts of T-6 operations and runway modifications at the selected NOLFs. The EA will help provide an independent, unbiased analysis and comparison of various alternatives for the proposed Navy action. The EA will assist the Navy in deciding how best to implement the Proposed Action, determine all primary and secondary adverse environmental effects that may result from the Proposed Action, and identify any appropriate mitigation measures needed.

This EA sets forth the basis for required environmental documentation in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 U.S. Code § 4321); the Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508); and Chief of Naval Operations Naval Instruction (OPNAVINST) 5090.1C (Navy 2007a), Department of the Navy Environmental and Natural Resources Program Manual. This EA is divided into seven sections, including this introduction which provides a description of the purpose and need, the Proposed Action, and the regulatory scope of the project. Section 2 describes the alternatives considered for evaluation, including the Proposed Action and the No Action Alternative. Section 3 describes the existing biological and human environment in the project area. Section 4 discusses the potential environmental consequences of implementing the Proposed Action and alternatives, and Section 5 describes the cumulative impacts. Section 6 describes the plans, permits, and environmental design measures for the Proposed Action. A list of preparers, contacts, references and applicable documents, and acronyms/abbreviations used in this EA are provided in Sections 7 through 10, respectively.

1.2 BACKGROUND

NASWF was commissioned on July 16, 1943 to train Naval aviators and today remains the “crown jewel” of Naval aviation training. It is home to Training Air Wing Five (TW-5), which conducts training for nearly 2,000 students aboard the complex each year. The mission of the installation is to effectively support the mission accomplishment of multiple tenant commands

training of U.S. Navy, Marine Corps, Air Force, Coast Guard and international students, by efficiently providing high quality installation facilities and operations services.

NASWF is located north of Milton, Florida, in the panhandle area of Florida in Santa Rosa County, and contains two airfields. NASWF North Field hosts a fleet of over 150 T-34C “Turbo Mentor” aircraft; NASWF South Field supports 120 TH-57 “Sea Ranger” helicopters. The NASWF complex is the busiest Naval air complex in the world. NASWF North and South Fields launch more than 500 flights a day, with the complex supporting 1.3 million flight operations annually and 10 percent of all Navy and Marine Corps flight hours flown world-wide.

In addition to the 6,000-foot long runways at North and South Fields, NASWF operates eight NOLFs supporting fixed-winged primary flight training. These fields are NOLFs Brewton in Escambia County, Alabama; Evergreen in Conecuh County, Alabama; NOLFs Wolf, Barin, Summerdale and Silverhill in Baldwin County, Alabama; and NOLF Choctaw and NOLF Holley in Santa Rosa County, Florida. NOLF Saufley in Escambia County, Florida is owned and operated by NAS Pensacola, and formerly was used for NASWF operations.

NASWF will transition from the T-34C to the T-6 between mid-2009 to 2015. The T-6 requires longer runways to complete safe operations. The safe runway length required is 4,000 feet for dual-piloted training and 5,000 feet for solo-piloted training. In the North MOA, NOLF Brewton has sufficient runway length to accommodate T-6 solo operations; and NOLF Evergreen will meet the solo operation requirement later this year with an on-going military construction effort to extend its runways to 5,000 feet. NOLF Choctaw, in the South MOA, has sufficient runway length for solo T-6 operations, but is restricted. One unrestricted NOLF for dual operation, and one unrestricted NOLF for solo operation will be required to accommodate training in the South MOA.

With the exception of Brewton and Evergreen NOLFs in Alabama, all of the NOLFs used by NASWF are owned by the Federal Government.

1.3 PURPOSE AND NEED

The purpose of the Proposed Action is to modify existing NOLFs, as required by the Statement of Operational Need, Air Training Command (ATC) 005-88C (ATC 1989) and a subsequent

Joint Statement of Operational Need (ATC 1990), as well as CNATRA Instruction 3710.17A (CNATRA 2004), which specify runway lengths of 4,000 feet and 5,000 feet for dual and solo operations, respectively, plus clear zones constructed at the ends of all runways as required for safety, for use by the T-6 aircraft. Therefore, the Proposed Action is needed to support primary flight training with the new T-6 JPATS aircraft at NASWF, and to maintain the operational readiness and training mission at NASWF through the transition to the new T-6 JPATS aircraft.

1.4 PROPOSED ACTION

The Proposed Action would acquire approximately 203 acres of private land around NOLFs Barin and Summerdale, and modify the runways at both NOLFs to accommodate T-6 operations. Both runways at Barin NOLF (15-33 and 9-27) would be extended to a length of 5,000 feet with 1,000-foot long Type I Clear Zones at each end of the runways to accommodate T-6 solo operations (Figure 1-2). Runways 10-28 and 4-22 at Summerdale NOLF would be extended to a length of 4,000 feet with 1,000-foot long Type I Clear Zones at each end of the runways to accommodate T-6 dual operations (Figure 1-3). Existing runway lighting at Barin NOLF would be expanded to include the additional runway lengths. A 2,000-foot long Type III Clear Zone would be acquired and maintained at the ends of the modified runways at both NOLFs. No trees above the calculated approach/departure surface and no structures would be allowed in the Type III Clear Zones. Civilian structures, including residences, located within the runway extensions and clear zones would be removed, and two roads would be relocated outside of the 1,000-foot long Type I Clear Zones.

The Naval Air Training Operations Procedures Standardization (NATOPS) Program U.S. Navy Aircraft Firefighting and Rescue Manual (NAVAIR 00-80R-14) (Navy 2003) requires that a safety and crash crew and equipment be deployed when any aircraft touches down on a runway, and two crash crews would be available for deployment at Barin and Summerdale NOLFs whenever training is scheduled for those fields. In order to efficiently schedule training flights during variable wind conditions, cross-wind runways at each NOLF would be provided.

Doc McDuffie Road, located at the west end of the Runway 9-27 at Barin NOLF, would be relocated outside of the runway extension and Type I Clear Zone (Figure 1-4). Lassiter Farm Road, located along the east side of Summerdale NOLF, would be removed from the Type I

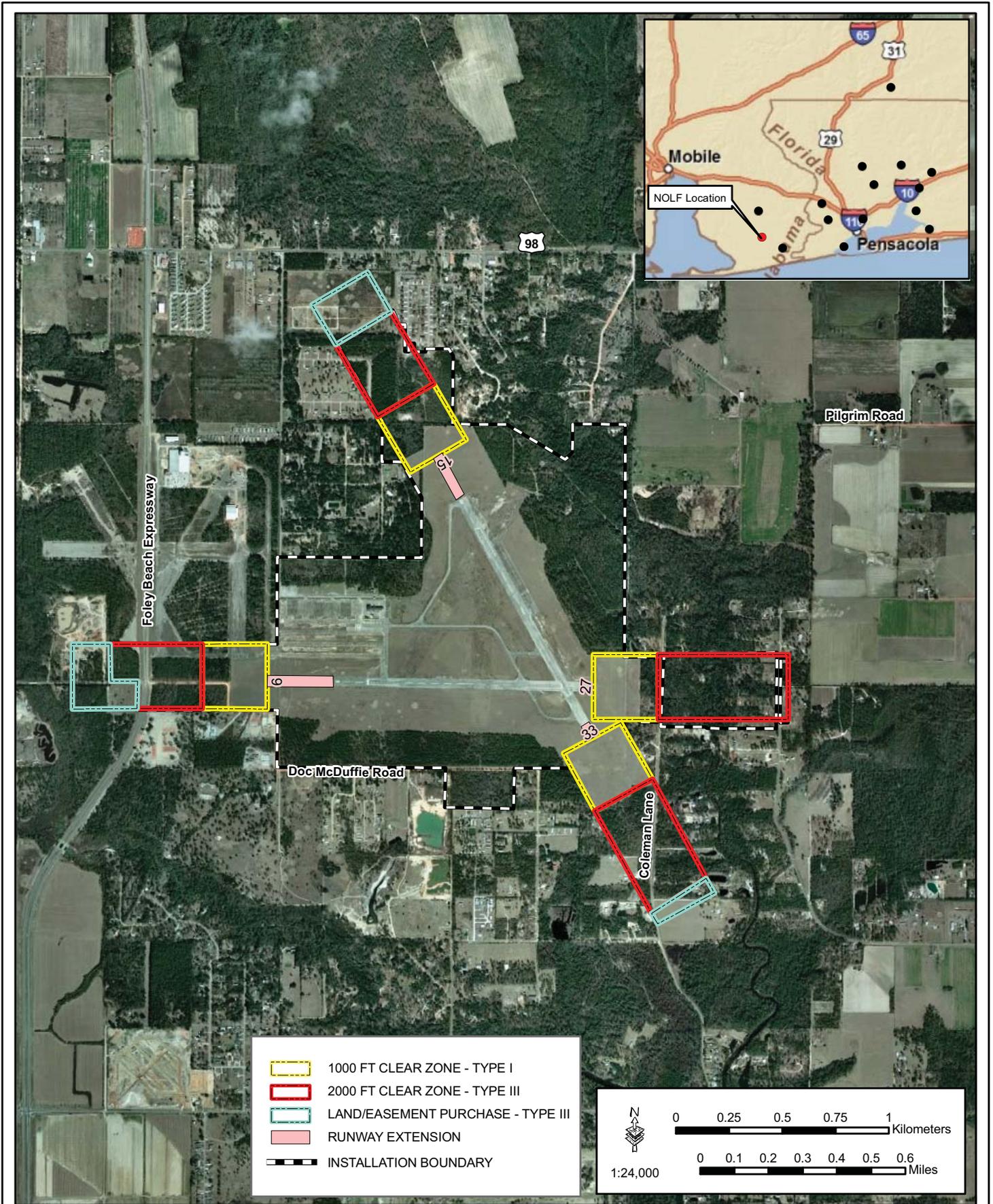


Figure 1-2: Barin NOLF Proposed Action



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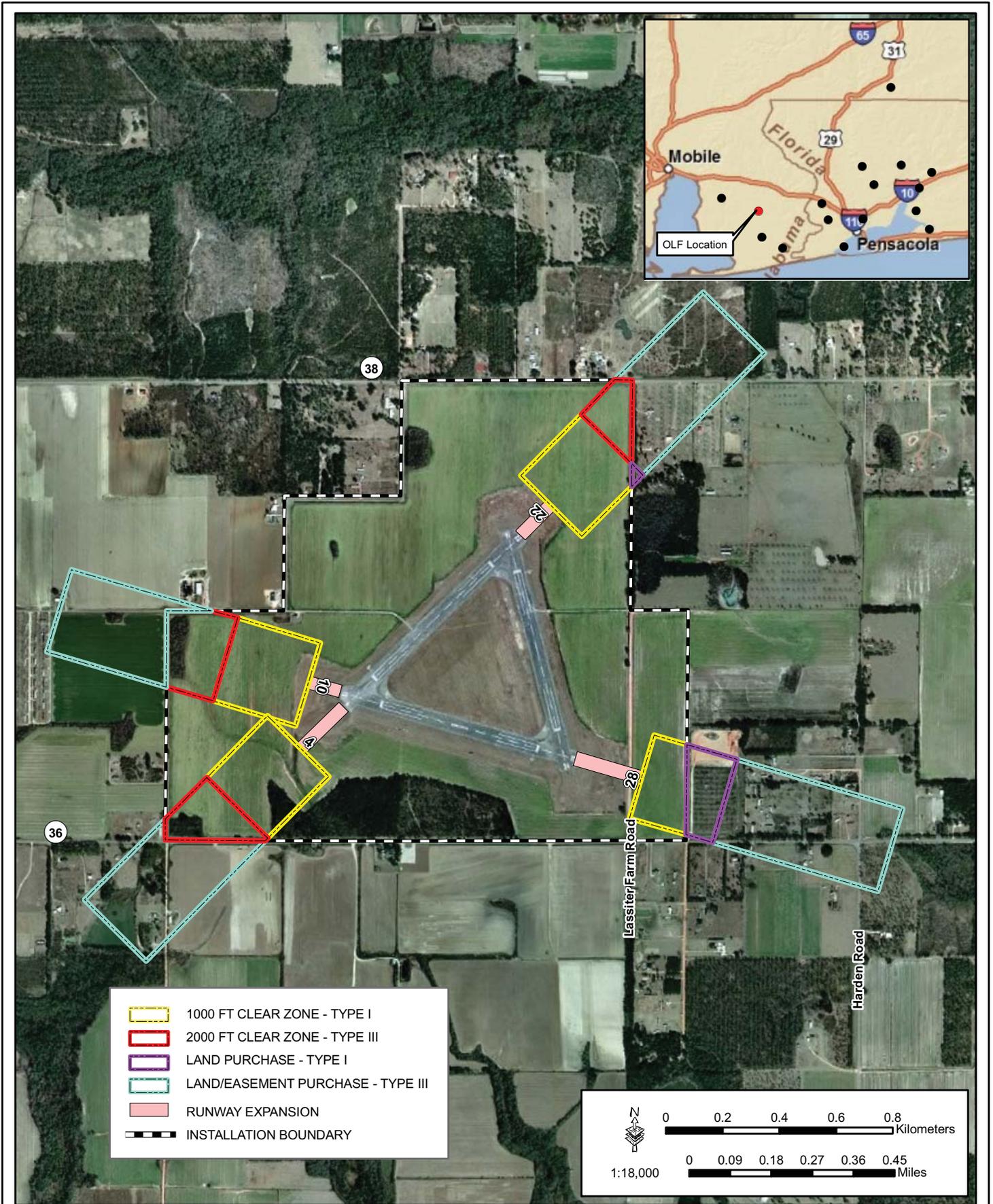


Figure 1-3: Summerdale NOLF Proposed Action



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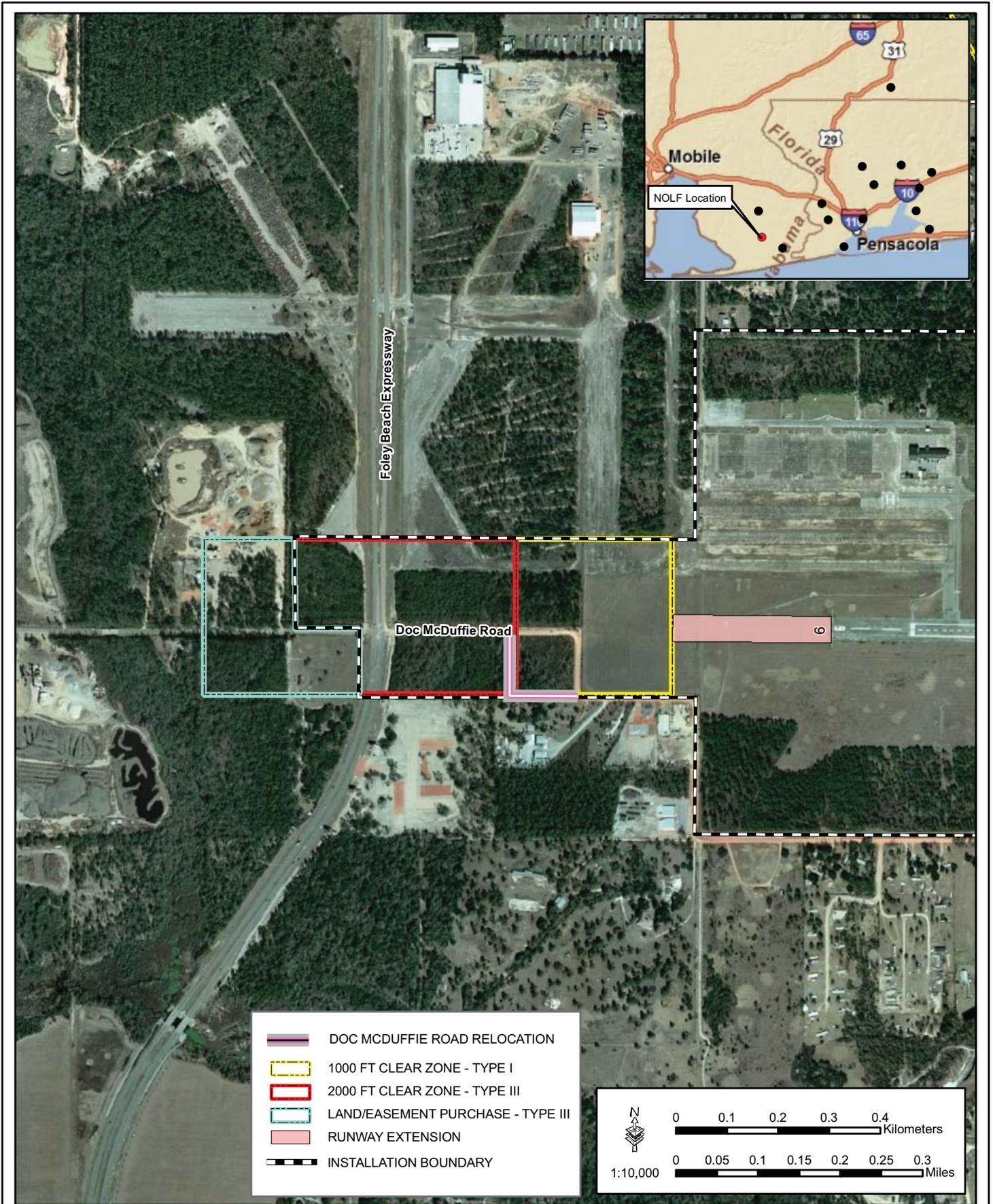


Figure 1-4: Doc McDuffie Road Relocation



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Clear Zone for Runway 10-28 (see Figure 1-3). Road relocation right-of-way (ROW) would require the purchase of approximately 1.2 acres of private property at Barin NOLF.

1.4.1 Additional Actions Related to the Proposed Action and Alternatives

During the transition of training at NASWF from the T-34 to the T-6 aircraft, there would be a need to utilize all available assets for T-34 training operations due to construction at some NOLFs and the requirement by TW-5 to avoid mixing T-34 and T-6 training traffic at the same NOLF. This could mean increased additional landings and approaches to NOLFs Wolf, Silverhill, Holley and Choctaw.

1.5 REGULATORY AND ADMINISTRATIVE SCOPE

Table 1-2 lists the laws, regulations, executive orders, directives, and memoranda that provide guidance for the preparation of this EA.

Table 1-2. Relevant Laws and Regulations Providing Guidance in the Development of this EA

Action Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status	Relevant Laws and Regulations
FEDERAL			
<i>Sound/Noise</i>			
Construction and operations	United States Environmental Protection Agency (USEPA)	Compliance with surface carrier noise emissions	Noise Control Act of 1972 (42 United States Code (USC) 4901 et seq.), as amended by Quiet Communities of 1978 (PL 95-609)
<i>Air</i>			
Construction and operations	USEPA	Compliance with National Ambient Air Quality Standards (NAAQS) and emission limits and/or reduction measures	Clean Air Act and amendments of 1990 (42 USC 7401(q)) 40 CFR 50, 52, 93.153(b)
<i>Water</i>			
Construction sites with greater than 1 acre of land disturbed	USEPA	Section 402(b) National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges for Construction Activities-Storm Water Pollution Prevention Plan (SWPPP)	Clean Water Act of 1977 (33 USC 1342) 40 CFR 122

Table 1-2, continued

Action Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status	Relevant Laws and Regulations
Construction in or modification of floodplains	Water Resources Council, Federal Emergency Management Agency (FEMA), and CEQ	Compliance	Executive Order (EO) 11988 (Floodplain Management), as amended by EO 12608 (Elimination of unnecessary Executive orders and technical amendments to others)
Construction in or modification of wetlands	U.S. Army Corps of Engineers (USACE) and U.S. Fish and Wildlife Service (USFWS)	Compliance	EO 11990 (Protection of Wetlands), as amended by EO 12608
Potential discharge into waters of the state (including wetlands and washes)	USACE (and Alabama Department of Environmental Management (ADEM))	Section 401 Certification	Clean Water Act of 1977 (33 USC 1341 <i>et seq.</i>) 40 CFR 121
Discharge of dredge or fill material to a watercourse	USACE	Section 404 Permit (Individual or nationwide)	Clean Water Act of 1977 (33 USC 1344) 40 CFR 230
Consistency with the Alabama Coastal Management Program	Administered by ADEM	Compliance	Coastal Zone Management Act of 1972 (16 USC 1456(c)) Section 307
Natural resources management related to wetland management and nonpoint source pollution	U.S. Navy	Compliance	OPNAVINST 5090.1C, par 22-4.3(a)
Soils			
Current operation involving hazardous waste and/or remediation of contamination site	USEPA	Proper management, and in some cases, permit for remediation	Resource Conservation and Recovery Act of 1976 (42 USC 6901(k)), as amended by Hazardous and Solid Waste Amendments of 1984 (PL 98-616; 98 Statute 3221)
Release or threatened release of a hazardous substance	USEPA	Development of emergency response plans, notification, and cleanup	Comprehensive, Environmental Response, Compensation, Liability Act of 1980 (42 USC 9601), as amended by Emergency Planning and Community Right-To-Know-Act of 1986 (42 USC 11001 <i>et seq.</i>)
Prime and unique farmlands	Natural Resource Conservation Service (NRCS)	NRCS determination via Form AD-1006, compliance exempted	Farmland Protection Policy Act of 1981 (7 USC 4201 <i>et seq.</i>) 7 CFR 657-658
Soil conservation of Federal lands	NRCS	Compliance	Soil Conservation Act (16 USC 590(a) <i>et seq.</i>)
Soil management	U.S. Navy	Compliance	OPNAVINST 5090.1C, par 22-4.3(d)

Table 1-2, continued

Action Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status	Relevant Laws and Regulations
<i>Natural Resources</i>			
Identification of threatened and endangered species and their habitats	USFWS, National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service	Compliance by lead agency and/or consultation to assess impacts and, if necessary, develop mitigation measures	Endangered Species Act of 1973, as amended (16 USC 1531) Sections 7 and 9 50 CFR 17.11-17.12
Protection of migratory birds	USFWS	Compliance by lead agency and/or consultation to assess impacts and, if necessary, develop mitigation measures	Migratory Bird Treaty Act of 1918 (16 USC 703) 50 CFR Chapter 1
Protection of bald and golden eagles	USFWS	Compliance by lead agency and/or consultation to assess impacts and, if necessary, obtain permit	Bald and Golden Eagle Act of 1940, as amended (16 USC 688(d)) 50 CFR 22.3
Conserve and promote conservation of non-game fish and wildlife and their habitats	USFWS, NOAA Fisheries	Compliance	Fish and Wildlife Conservation Act (16 USC 2901)
Fish and wildlife species management planning	U.S. Navy	Compliance management	OPNAVINST 5090.1C, par 22-4.2
Requires agencies to restrict the introduction of exotic organisms into natural ecosystems	Affected land managing agency	Compliance	EO 13112 (Invasive Species)
<i>Health and Safety</i>			
Health and safety standards	Occupational Safety and Health Administration (OSHA)	Compliance with guidelines including Material Safety Data Sheets	Occupational Safety and Health Act of 1970 (29 USC 651) 29 CFR 1975
<i>Cultural/Archaeological</i>			
Disturbance of historic properties	Federal lead agency, State Historic Preservation Officer, Advisory Council on Historic Preservation	Section 106 Consultation	National Historic Preservation Act of 1966 (16 USC 470 <i>et seq.</i>), as amended 36 CFR 800 Cultural Resources Management Presidential Memorandum regarding government to Government Relations (April 29, 1994) EO 13007 (Sacred Sites Native American Graves Protection and Repatriation Act)

Table 1-2, continued

Action Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status	Relevant Laws and Regulations
Investigation and excavation of cultural resources	Affected land-managing agency	Permits to survey and excavate/remove archaeological resources on Federal lands; Native American tribes with interests in resources must be consulted prior to issue of permits	Archaeological Resources Protection Act of 1979 (16 USC 470(a)(a)-470(ii)) 43 CFR 7
<i>Socioeconomic</i>			
Disproportionately high and adverse human health or environmental effects on minority and low-income populations	USEPA	Compliance	EO 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations)
STATE			
<i>Air</i>			
Construction or modification of air contaminant source	ADEM	Compliance with state ambient air quality standards and General Conformity <i>de minimis</i> thresholds; Compliance with State Implementation Plan for emissions exceeding <i>de minimis</i> levels	ADEM Administrative Code, Chapter 335-3-14
<i>Water</i>			
Conserves, protects, maintains, and improves the quality of the public water supply. Waste must not be discharged into any waters of without prior approval of the State	ADEM	Compliance	ADEM Administrative Code, Chapter 335-6-6 NPDES

1.6 PUBLIC INVOLVEMENT/AGENCY COORDINATION

In order to familiarize the public and elected officials located in the area around the Baldwin County NOLFs, briefing meetings were held with local and state public officials, and a public scoping meeting was held on January 29, 2009 in Summerdale, Alabama. The public scoping meeting was announced by mail to all known property owners and residents adjacent to the four NOLFs in Baldwin County, as reflected in the county tax parcel map database, as well as through a published notice in the *Mobile Press Register* newspaper. Over 200 persons attended the scoping meeting. Comments were solicited at the public scoping meeting, and

over 375 written comments were received from responses at the meeting and later email, fax and letters.

Because the scoping meeting included all of the alternatives being considered at that time, most of the comments were addressed as questions and concerns about which properties would be affected, and which NOLFs would be chosen for the Proposed Action. Both negative and positive comments were received related to all of the alternative NOLF actions presented at the meeting. A summary of comments received from the public scoping meeting can be found in Appendix C.

In order to better inform the public about the progress of the NEPA process for the project, a website was established on behalf of NASWF at www.navyolfextensions.com. The alternatives being evaluated for the project were presented on the website, and frequently asked questions and answers were listed. Public notices and press releases by NASWF and NAVFAC regarding the project were also posted on the website. The Draft EA is posted on the website for public review.

SECTION 2.0
DESCRIPTION OF ALTERNATIVES

2.0 DESCRIPTION OF ALTERNATIVES

A full range of alternatives that meet the project's purpose and need has been developed and evaluated. Each alternative, as well as the No Action Alternative, was evaluated based on operational and environmental factors. Operational factors are important design, location, or construction features that could affect the degree to which the Proposed Action can satisfy the project's purpose and need. The operational factors evaluated include: sufficient runway length plus clear zones for T-6 operations; sufficient airspace and operating altitude to meet the training syllabus requirements; minimal interference with GA traffic and civilian restricted airspace; timely runway modifications to accommodate the T-6 transition period; reasonable flying distance from NASWF for efficient training operations; and minimal potential for civilian encroachment or Air Installation Compatible Use Zone (AICUZ) concerns in the surrounding community. Environmental factors are important issues or concerns recognized by regulatory agencies, or those conditions that must be met to minimize potential impacts on the environment associated with the Proposed Action.

Alternatives carried forward include various combinations of existing NOLFs that would meet the operational screening criteria for the NASWF training mission. A set of screening evaluation criteria was developed by TW-5 to assign a relative value to all of the operational criteria in order to rank possible alternatives according to their suitability. Table 2-1 is a summary of the criteria used in the evaluation matrix developed by TW-5 to define the NOLFs evaluated for the mission.

2.1 EXISTING NOLF SUITABILITY

2.1.1 Saufley NOLF

Saufley NOLF is located on 866 acres southwest of Pensacola, Florida, and is owned and maintained by NAS Pensacola (Figure 2-1). It was formerly used primarily as a NASWF T-34 dual and solo field, but the 4,000-foot runways are not long enough to accommodate the T-6 in solo capacity. While the runways are long enough for T-6 dual operations, the field lies beneath the Pensacola Regional Airport Terminal Radar Service Area (TRSA), which would limit high altitude dual operations that are an integral part of dual operations flight training. Saufley NOLF is surrounded by civilian communities and structures, which could limit extension of the runways for solo T-6 operations, and topographic and environmental restrictions also limit runway

extension possibilities. Space for Type I Clear Zone overrun (1,000 feet) is also not available for all runways at Saufley NOLF, and encroachment and topography would not allow for overrun construction. Saufley Field is intermittently used by NAS Pensacola for T-6 operations.

Table 2-1. NOLF Evaluation Criteria

Criteria No.	Criteria	Definition	Standards
1	Size	Width and length capable of handling the aircraft with the greatest requirement.	T-6 Length = 5,000 feet, Width = 150 feet
2	Condition/Existing Infrastructure	The overall condition of the airfield and supporting facilities.	Good runways and security features
3	Airspace Quality/Quantity	Are there low and high working areas available near the airport? Will the areas support multiple aircraft?	No airspace restrictions and low traffic
4	Availability	Is the airfield currently Government owned, available for lease, private airfield or public?	Ideal would be Government owned. Second would be public, with GA restrictions for Navy use only during daylight hours. Least ideal is public, no GA restrictions.
5	Current Usage	Is the airfield currently being utilized for training? Does it support multiple Navy aircraft? Is it utilized by GA? Are there restrictions to Navy aircraft?	Currently used for training; Multi-aircraft use support No GA use; no training restrictions
6	Cost to Develop	A measure of the relative cost to develop this location.	Low cost for modifications or no modifications needed
7	Time to Develop	How long will it take to make this location fully operational?	This is a relative scale. Development time within schedule for T-6 deployment
8	Distance from Home Field	How far is the location from the home field, NASWF?	Ideal distance 15-30 nautical miles. <5 or >45 = not ideal.
9	Supports Training Syllabus	Provides the best support of training syllabus requirements. Available to multiple aircraft types? Multiple runway directions? Does it support both day and night sorties?	All training requirements met for multiple aircraft with cross-wind runways. No restriction on night operations.
10	Safety	How well does this location meet aviation safety requirements? Are there safety concerns with current or future usage? Factors to evaluate: Tower or uncontrolled? Fire/Crash crew available? Security?	Tower controlled runways; no future or current usage conflicts; fire/crash crews available; all security conditions met
11	Environmental/AICUZ/Encroachment	Environmental restrictions or concerns. AICUZ signature restrictions. Encroachment, current and future potential for surrounding community development impacting flight operations.	No environmental impacts or restrictions; no AICUZ restrictions; little or no current encroachment; low potential for future encroachment



Figure 2-1: Saufley NOLF Location Map



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Saufley NOLF meets minimum criteria 2, 4, 5, 8, 9 and 10 (partially) in Table 2-1; but would not meet the remaining criteria and could not be modified to meet those criteria. Therefore, Saufley NOLF will not be considered as a viable alternative NOLF for this EA, and will not be evaluated further.

2.1.2 Wolf NOLF

Wolf NOLF is located on 421 acres in southern Baldwin County, Alabama, north of Orange Beach, approximately 40 miles from NASWF (Figure 2-2). It is surrounded by lightly developed civilian structures and agricultural development, and lacks sufficient runway length for either dual or solo T-6 operations. Agricultural cultivation occurs on clear areas at Wolf NOLF under a lease arrangement with local farmers. Navigation from NASWF to Wolf NOLF would require a deviation around the Pensacola Regional Airport TRSA, which would add time to training flights and introduce additional safety concerns. Wolf NOLF is also located directly adjacent to the NAS Pensacola TRSA, and is adjacent to the visual and instrument course rules for NAS Pensacola, which would limit high altitude operations east of the field. The instrument approach pattern for Jack Edwards Airport in Gulf Shores, Alabama includes airspace over Wolf NOLF. Wolf NOLF is currently used for approaches and maneuvering operations with T-34 aircraft.

Wolf NOLF contained active gopher tortoise (*Gopherus polyphemus*) burrows in the past, and is suitable for gopher tortoise habitation, which may result in environmental restrictions on expansion. Expansion of Wolf NOLF would also impact the largest amount of wetlands of all NOLFs considered for the runway expansion project.

A new beach access highway (an extension of County Highway 95) is planned for construction west of Wolf NOLF by Baldwin County, and a new bridge over Wolf Bay is planned to facilitate development of the area north of the bay, which includes the Wolf NOLF area (City of Orange Beach 2007). Most of the surrounding land is held by commercial real estate developers in anticipation of the new highway and bridge. The area around Wolf NOLF is projected to be in high demand for expansion of residential and commercial development in the near future, which would increase the safety risk for civilians due to training operations, and would be in conflict with the expanded AICUZ for the field.

Wolf NOLF meets criteria 2, 4, 6, 7, and 8 in Table 2-1. Criterion 1 could be met with runway and clear zone expansion, including additional property acquisition; however, criteria 3, 5, 9 and

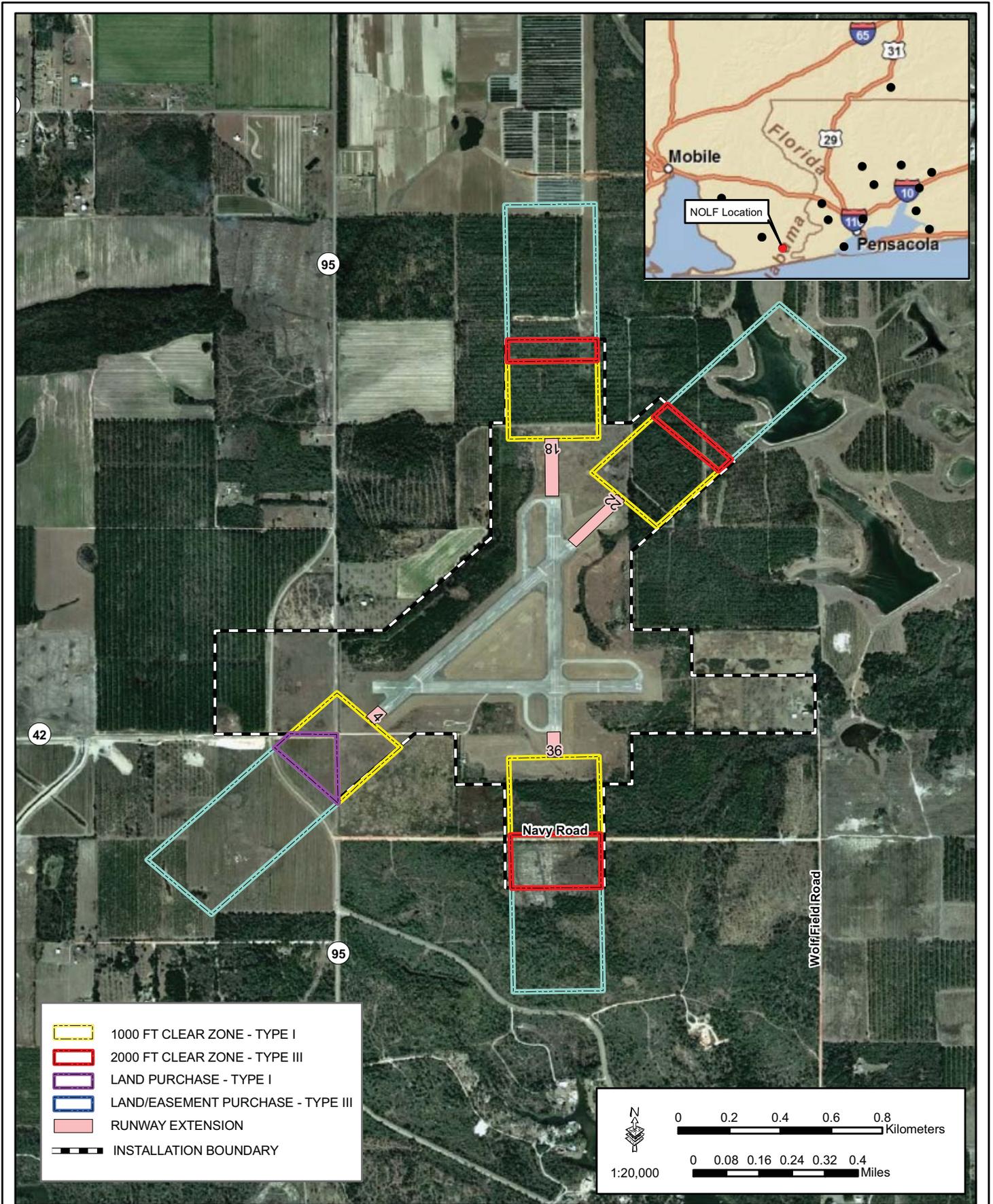


Figure 2-2: Wolf NOLF Alternative 5 Action



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10 would involve limitations because of altitude restrictions due to interference with NAS Pensacola flight operations, and would restrict use of the field for T-6 training such that Wolf NOLF would not be suitable for daily NASWF training needs. In addition, aircraft safety liability adjacent to the Pensacola Regional Airport and NAS Pensacola TRSAs, as well as conflicts with approach patterns for Jack Edwards Airport, may be greater than acceptable limits. Criterion 11 is a potential conflict that may or may not be realized pending future economic conditions. Therefore, Wolf NOLF is considered as a marginally viable alternative NOLF for this EA. Nonetheless, it will be fully evaluated as part of the EA, in order to document the resources and impacts associated with the field.

2.1.3 Holley NOLF

Holley NOLF (Figure 2-3) is located on 698 acres in Navarre, Florida, approximately 21 miles south of NASWF, and is surrounded by heavily developed urban residential areas. Runway lengths are insufficient for T-6 operations, and extensions of the runways are extremely limited due to development encroachment and potentially extensive impacts on the surrounding community. The field is also home to the largest gopher tortoise population, as well as several Federal listed species, of any of the NOLFs being considered in this EA. Holley NOLF is currently used by NASWF for T-34 approach and maneuvering activities.

Holley NOLF meets only criteria 2, 4, 5 and 8 in Table 2-1. Because of the high socioeconomic and environmental impacts involved with expansion of runways and clear zones at the field, Holley NOLF will not be considered as a viable alternative NOLF for this EA, and will not be evaluated further.

2.1.4 Barin NOLF

Barin NOLF (see Figure 1-2) is located on 781 acres in Baldwin County, Alabama, approximately 43 miles southwest of NASWF. Runway lengths at Barin NOLF are sufficient for dual T-6 operations, but lack sufficient clear zones. Areas around Barin NOLF are moderately developed with residential neighborhoods, and the Foley Beach Expressway is located near the west end of Runway 9-27. Doc McDuffie Road is located partially within the required Type I Clear Zone at the west end of Runway 9-27. Barin NOLF has existing runway lighting and a crash safety facility. Barin Field was previously much larger, and the west portion of the original facility was transferred to Baldwin County and the City of Foley for public use.



Figure 2-3: Holley NOLF Location Map

Much of the additional land needed for runway and clear zone extensions at Barin NOLF is owned by the Navy. Barin NOLF meets all of the criteria in Table 2-1, and is considered a viable alternative to meet the training mission at NASWF for solo T-6 operations if the runways and clear zones are extended. Barin NOLF is currently used for T-34 operations.

2.1.5 Silverhill NOLF

Silverhill NOLF (Figure 2-4) is located on 396 acres in Baldwin County, Alabama, approximately 48 miles west of NASWF. Runway lengths are insufficient for T-6 operations. The NOLF is surrounded by light to moderate developed rural residential and agricultural areas, and clear areas of the field are cultivated under an agricultural lease. County Road 54 is located along the northern boundary of the field within the potential Type III Clear Zone at the north end of Runway 16-34; Raines Road is located within the potential Type I Clear Zone at the east end of Runway 9-27; and South River Road is located within the potential Type III Clear Zone at the east end of Runway 9-27.

Silverhill NOLF meets all criteria in Table 2-1 except criterion 1, and extension of the runways and clear zones could be accomplished to meet criterion 1. Therefore, Silverhill NOLF is considered to be a viable alternative to meet T-6 dual training requirements at NASWF. Silverhill NOLF is currently used for T-34 operations.

2.1.6 Summerdale NOLF

Summerdale NOLF (see Figure 1-3) is located on 572 acres in Baldwin County, Alabama, approximately 40 miles southwest of NASWF. The runway lengths are insufficient for T-6 operations. The field is surrounded by light to moderate developed rural residential and agricultural areas, and clear areas of the field are cultivated under an agricultural lease. County Road 38 is located along the north side of the field within the proposed Type III Clear Zone for Runway 4-22 and the potential Type III Clear Zone for Runway 16-34, and County Road 36 is located along the south side of the field, within the potential Type I Clear Zone for Runway 16-34. Lassiter Farm Road is located along the east side of the field within the proposed Type I Clear Zones for Runways 10-28 and 4-22 and the potential Type I Clear Zone for a new Runway 9-27.

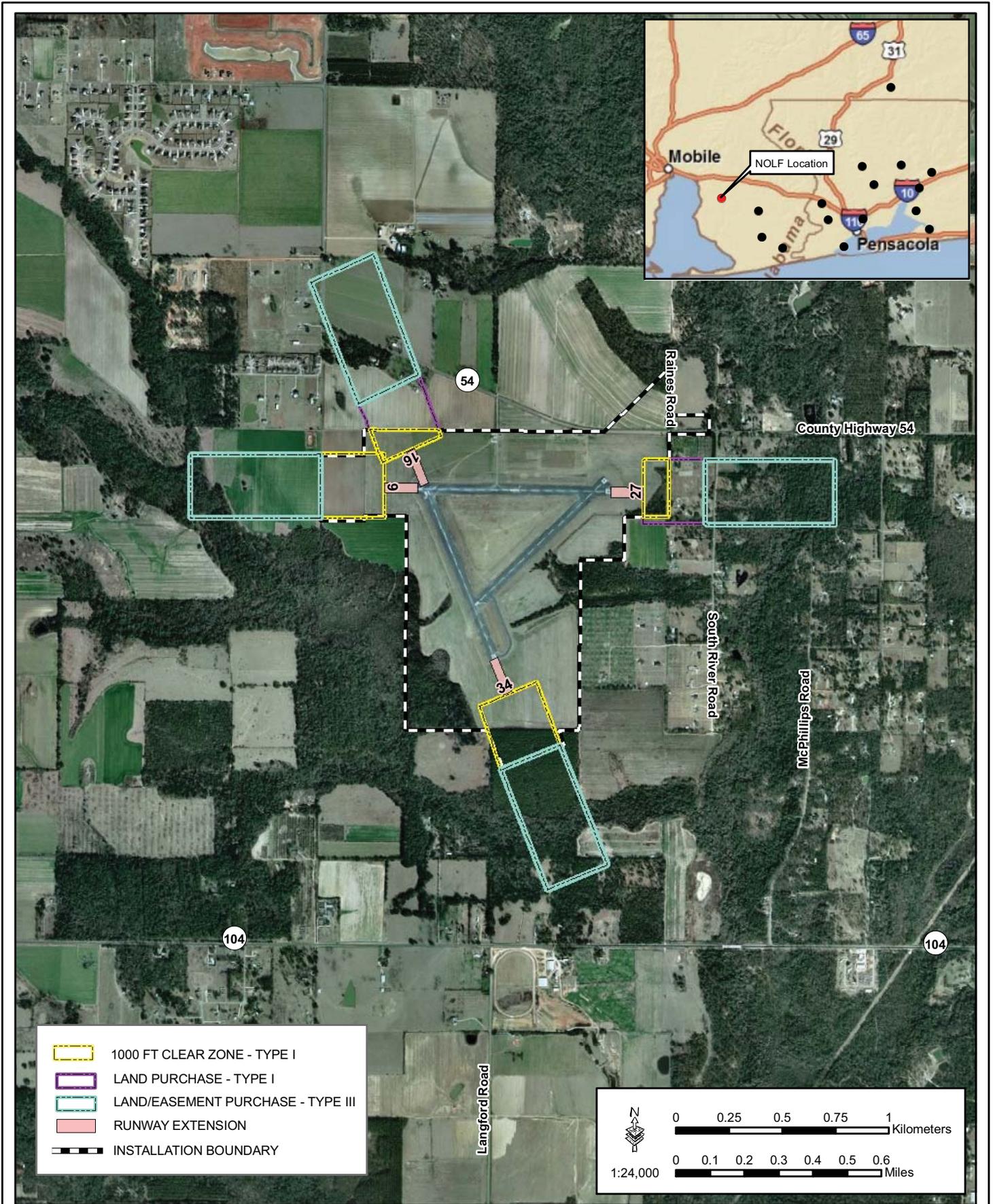


Figure 2-4: Silverhill NOLF Alternative 2 Action



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Summerdale NOLF is currently used for approach and maneuvering operations involving T-34 aircraft, and meets all criteria in Table 2-1 except criterion 1, and extension of the runways and clear zones or new runway construction could be accomplished to meet criterion 1. Therefore, Summerdale NOLF is considered to be a viable alternative to meet T-6 dual training requirements at NASWF.

2.1.7 Choctaw NOLF

Choctaw NOLF (Figure 2-5) is located on Eglin AFB property, approximately 14 miles south of NASWF. The length of the primary runway at Choctaw NOLF is 8,000 feet, sufficient for both dual and solo T-6 operations with no modifications or extensions. There is sufficient undeveloped area around the field for construction of a cross-wind runway, if needed; however, a cross-wind runway would introduce traffic conflicts with other traffic patterns, and therefore, would not be feasible. Choctaw NOLF is projected for use by the Air Force for other training operations, including high performance jet aircraft operations. The Navy would also use Choctaw NOLF for high performance jet training in the future. Conflicts between Navy T-6 operations and Navy and Air Force jet aircraft training would result in restricted use of this field as a primary NOLF for NASWF. Flights to Choctaw NOLF from NASWF would also require navigation through controlled airspace for the Pensacola Regional Airport TRSA, with limited high altitude operating space above the field due to proximity to the Pensacola Regional Airport TRSA. Restricted airspace in Area 2915 east of the field would also limit operations.

Choctaw NOLF meets all criteria in Table 2-1, with the exception of criteria 3, 9 and 10, and future scheduling of mixed Navy and Air Force use of the field could be accomplished to partially meet criterion 10. Criterion 9 could be met by construction of a new cross-wind runway; however, approach patterns would be limited by conflicts with other adjacent airspace restrictions. Criterion 3 could not be met due to projected high volume of jet aircraft and high altitude operating restrictions. Choctaw NOLF is, therefore, considered to be a viable alternative to partially or temporarily meet T-6 solo and dual training requirements at NASWF; however, it cannot be considered as a primary T-6 training field. It will be evaluated in the EA to document the resources and impacts associated with the field.

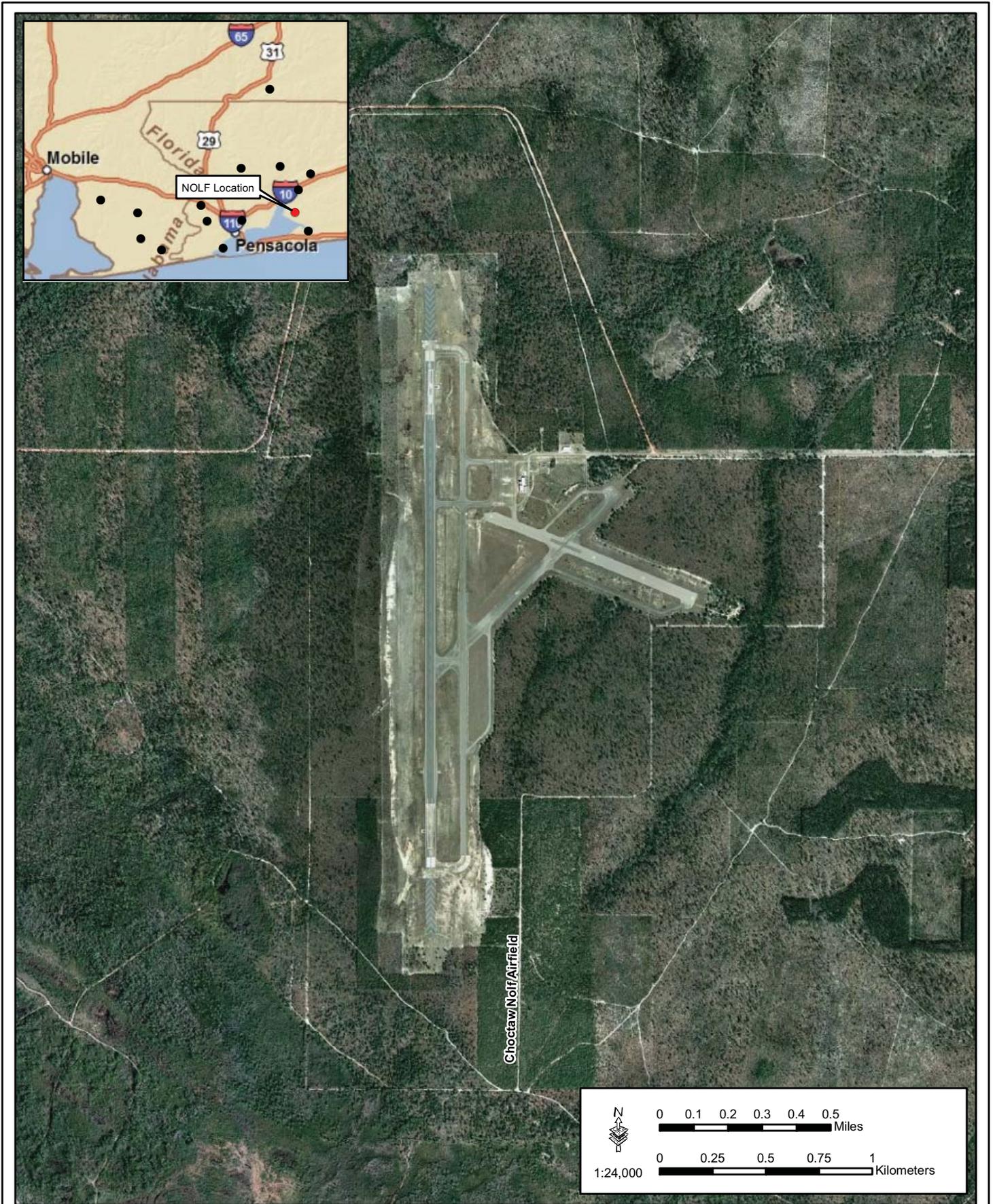


Figure 2-5: Choctaw NOLF



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2.2 ALTERNATIVES

2.2.1 Alternative 1: Proposed Action

The Proposed Action would modify the runways at Barin and Summerdale NOLFs to accommodate T-6 operations. Both runways at Barin NOLF would be extended to a length of 5,000 feet with 1,000-foot long Type I Clear Zones for T-6 solo operations. Existing runway lighting at Barin NOLF would be expanded to include the longer runways. Runway 10-28 and Runway 4-22 at Summerdale NOLF would be extended to a length of 4,000 feet with 1,000-foot long Type I Clear Zones to accommodate T-6 dual operations. Runway 16-34 at Summerdale NOLF would be abandoned. A 2,000-foot long Type III Clear Zone would be acquired and maintained at the ends of the modified runways at both NOLFs, and no trees taller than the calculated approach/departure surface and no structures would be allowed in those clear zones. Structures, including residences, currently located within the runway extensions and clear zones would be removed. Crash crews would be deployed at each field when aircraft are scheduled to touch down on the runways.

Lassiter Farm Road along the east side of Summerdale NOLF would be removed within the Type I Clear Zone for Runway 10-28 at the south end of the road. Doc McDuffie Road, located west of Barin NOLF, would be relocated outside of the Type I Clear Zone for Runway 9-27, and an additional 1.2 acres of private property would be purchased for the road ROW (see Figure 1-4). Approximately 40 acres of private land around NOLF Barin (see Figure 1-2) and approximately 163 acres of private land around NOLF Summerdale (see Figure 1-3) would be acquired for runway extensions and clear zones. The total additional acreage acquired at both NOLFs would be approximately 203 acres.

This Proposed Action was also described in Section 1.4. This alternative was selected because it most closely matched the purpose and need for the project, best satisfies mission requirements, meets the most evaluation factors, and results in the least impacts on environmental resources and local residents and communities.

2.2.1.1 *Additional Actions Related to the Proposed Action and Alternatives*

During the transition of training at NASWF from the T-34 to the T-6 aircraft, there will be a need to utilize all assets for T-34 training operations due to construction at some NOLFs and the requirement by TW-5 to avoid mixing T-34 and T-6 training traffic at the same NOLF. This could

mean increased additional landings and approaches at NOLFs Wolf, Summerdale, Silverhill and Holley. The exact number and locations for the additional training operations is not known at this time, and would vary depending on the level of construction restrictions on other NOLFs and weather conditions, as well as the level and intensity of flights needed to meet training obligations.

2.2.2 Alternative 2: Barin NOLF and Silverhill NOLF

Under this alternative, Barin NOLF would be modified to meet T-6 solo operating requirements, and Silverhill NOLF would be modified to meet T-6 dual operating requirements. Barin NOLF runways would be extended as described by the Proposed Action. Silverhill NOLF would be expanded to include two 4,000-foot long runways (Runway 16-34 and Runway 9-27) with Type I and Type III Clear Zones at both ends of the two runways (see Figure 2-4). This would involve acquisition of approximately 222 acres of additional private property at both fields, removal of Raines Road, relocation of Doc McDuffie Road, and removal of structures, including residences, within the clear zones.

2.2.3 Alternative 3: Barin NOLF and Choctaw NOLF

Under Alternative 3, Barin NOLF would be retained as a dual T-6 operations field, and no runway extensions would be needed. Clear zones would still be required at the ends of the runways; but overall impacts would be less than for the Proposed Action, in which the Barin NOLF runways would be extended to a length of 5,000 feet. No additional private property would be acquired at Barin NOLF. Choctaw NOLF (see Figure 2-5) would be modified to accommodate solo T-6 operations, but lack of a cross-wind runway would limit operations. This alternative would require close coordination with the Air Force and other Navy training wings to avoid conflicting training missions between T-6 and advanced jet aircraft, and could result in failure to meet training flight requirements. Use of Choctaw NOLF as a primary NASWF training field for T-6 aircraft would be restricted by conflicting aircraft types and airspace altitude conflicts, including the adjacent restricted airspace in Area 2915 to the east.

2.2.4 Alternative 4: Silverhill NOLF and Summerdale NOLF

Under Alternative 4, Summerdale NOLF would be modified for T-6 solo operations, and Silverhill NOLF would be modified for T-6 dual operations. This would involve the extension of two runways (Runway 10-28 and Runway 16-34) at Summerdale NOLF to a length of 5,000 feet with Type I and III Clear Zones at the ends of both runways, including removal of existing

structures and residences, and relocation of County Road 36 as indicated in the Proposed Action, Lassiter Farm Road and County Road 38 (Figure 2-6). Silverhill NOLF would be extended as described in Alternative 2 with two 4,000-foot long runways with Type I and Type III Clear Zones. Approximately 415 acres of private property would be purchased for extension of runways and clear zones at both fields. Impacts related to removal of structures and relocation of roads would be greater than for the Proposed Action.

2.2.5 Alternative 5: Barin NOLF and Wolf NOLF

Under this alternative, Barin NOLF would be extended for solo T-6 operations as described in the Proposed Action. Two runways at Wolf NOLF would be extended to a length of 4,000 feet for dual operations (Runway 18-36 and Runway 3-22) with Type I and Type III Clear Zones at the ends of both runways (see Figure 2-2). Approximately 205 acres of private property would be purchased for extension of runways and clear zones at both fields. Impacts related to wetlands would be greater than for the Proposed Action, and airspace restrictions for training operations would be greater than for the Proposed Action. Use of Wolf NOLF as a primary NASWF training field for T-6 aircraft would be restricted by conflicting jet aircraft operations at NAS Pensacola, conflicts with approach patterns at Jack Edwards Airport, and altitude restrictions for operations within and adjacent to the NAS Pensacola TRSA.

2.2.6 Alternative 6: Barin NOLF, Silverhill NOLF and Summerdale NOLF

Alternative 6 would involve the modification of Barin NOLF for T-6 solo operations as described in the Proposed Action, but only Runway 10-28 would be extended at Summerdale NOLF for T-6 dual operations (see Figure 1-3). Runway 16-34 at Silverhill NOLF would be extended to a length of 4,000 feet for dual T-6 operations (see Figure 2-4). Type I and Type III Clear Zones would be placed at the ends of the extended runways at both dual fields. This would require the acquisition of approximately 219 acres of private property beyond the current field boundaries at all fields being modified, but County Road 36 would not be relocated at Summerdale NOLF. Existing structures and residences within runway extensions and clear zones would be removed at Barin, Silverhill and Summerdale NOLFs. This alternative could potentially require the deployment of three crash crews when training operations are conducted, and training efficiency and flexibility would be impacted by lack of cross-wind runways at a single field for dual operations.

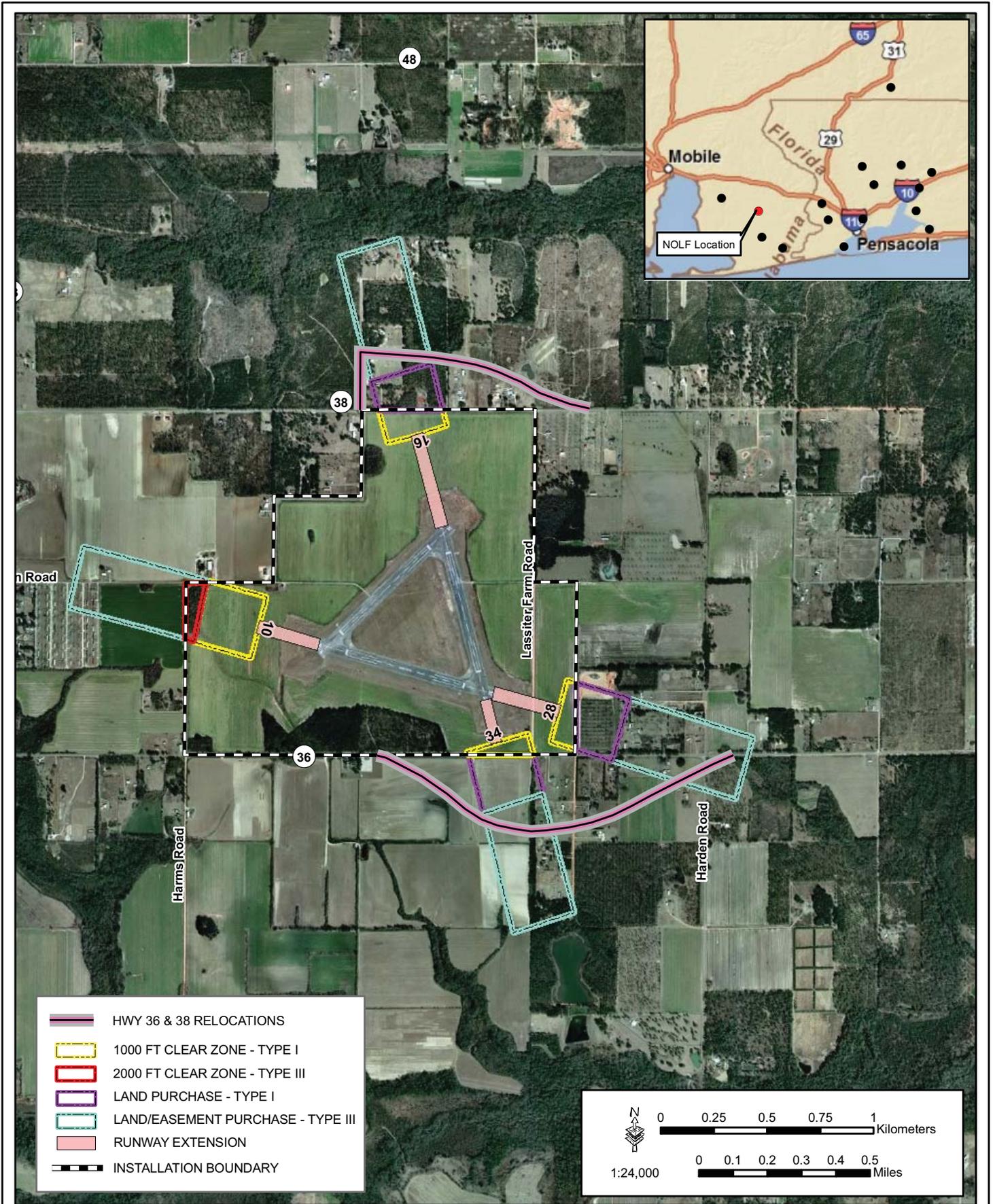


Figure 2-6: Summerdale NOLF Alternative 4

2.2.7 Alternative 7: Barin NOLF and Two Existing Runways at Summerdale NOLF

This alternative would extend the existing Runways 16-34 and 10-28 at Summerdale NOLF to a length of 4,000 feet for dual T-6 operations (Figure 2-7). Both runways at Barin NOLF would be extended to a length of 5,000 feet as in the Proposed Action. Type I and Type III Clear Zones would be placed at the ends of the modified runways at all fields. This would require acquisition of approximately 232 acres of private property beyond the current field boundaries at all fields. Existing structures and residences within runway extensions and clear zones at Summerdale and Barin NOLFs would be removed. County Road 36 and Lassiter Farm Road would be relocated at Summerdale NOLF.

2.2.8 Alternative 8: Barin NOLF, Runway 16-34 and a New Runway 9-27 at Summerdale NOLF

This alternative would modify the runways at Barin and Summerdale NOLFs to accommodate T-6 operations. Both runways at Barin NOLF would be extended to a length of 5,000 feet with 1,000-foot long Type I Clear Zones for T-6 solo operations as described for the Proposed Action. Runway 16-34 at Summerdale NOLF would be extended to a length of 4,000 feet with 1,000-foot long Type I Clear Zones to accommodate T-6 dual operations. A new 4,000-foot long Runway 9-27 with Type I Clear Zones would be constructed at Summerdale NOLF to provide a cross-wind capability at the field (Figure 2-8). Unused runways at Summerdale NOLF would be abandoned. A 2,000-foot long Type III Clear Zone would be acquired and maintained at the ends of the modified runways at both NOLFs, and no trees taller than the calculated approach/departure surface would be allowed in those clear zones. Structures, including residences, currently located within the runway extensions and clear zones would be removed.

County Road 36, south of Summerdale NOLF, would be relocated outside of the 1,000-foot long Type I Clear Zone for Runway 16-34 (Figure 2-9), and Lassiter Farm Road, east of Summerdale NOLF, would be relocated outside of the Type I Clear Zone for the new Runway 9-27. Approximately 14 acres of private property would be acquired for the relocation of County Road 36 and the necessary road right-of-way (ROW). Doc McDuffie Road, located west of Barin NOLF, would be relocated as described for the Proposed Action (see Figure 1-4).

Approximately 40 acres of private land around NOLF Barin (see Figure 1-2) and approximately 184 acres of private land around NOLF Summerdale (see Figure 2-8) would be acquired for

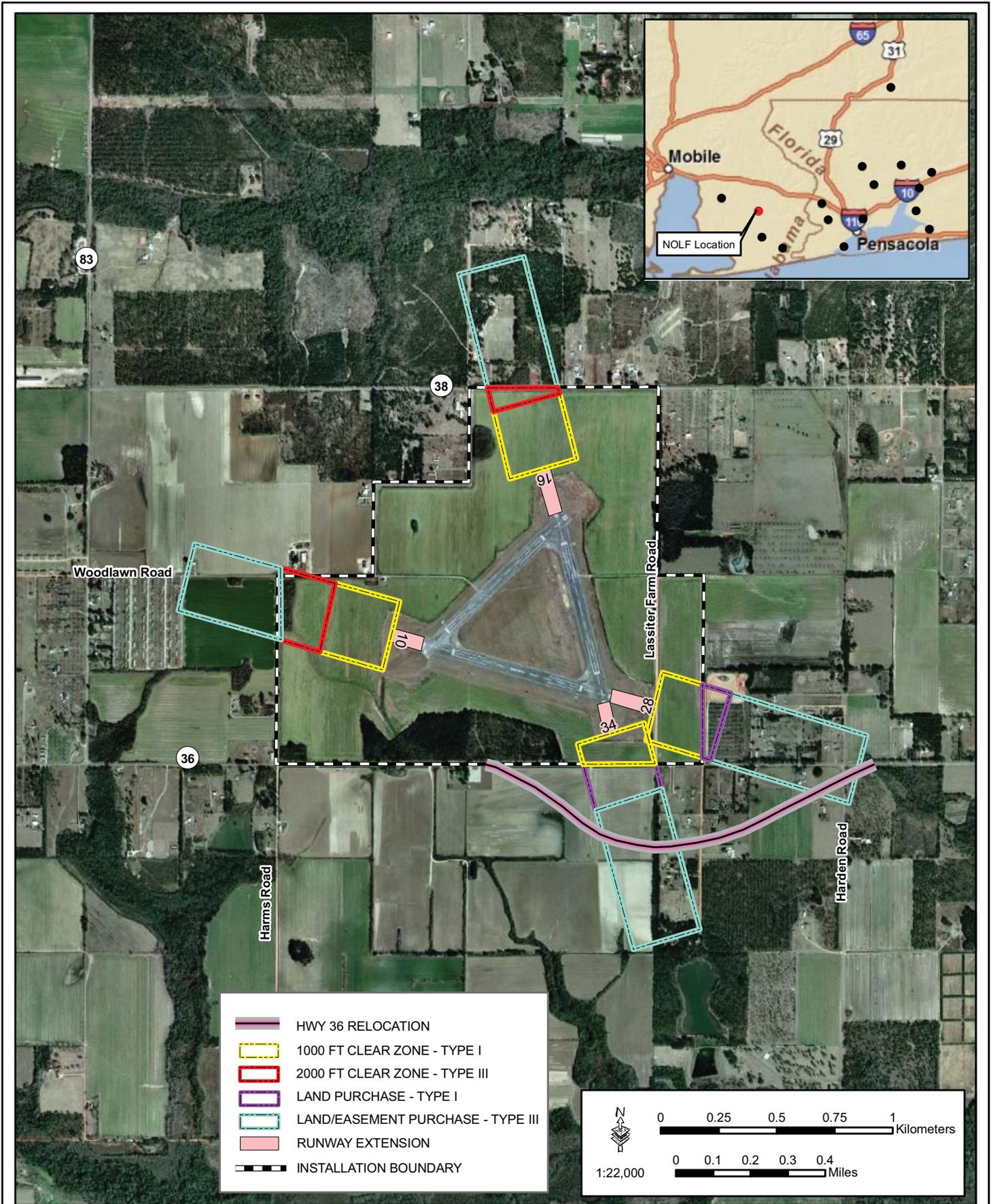


Figure 2-7: Summerdale NOLF Alternative 7



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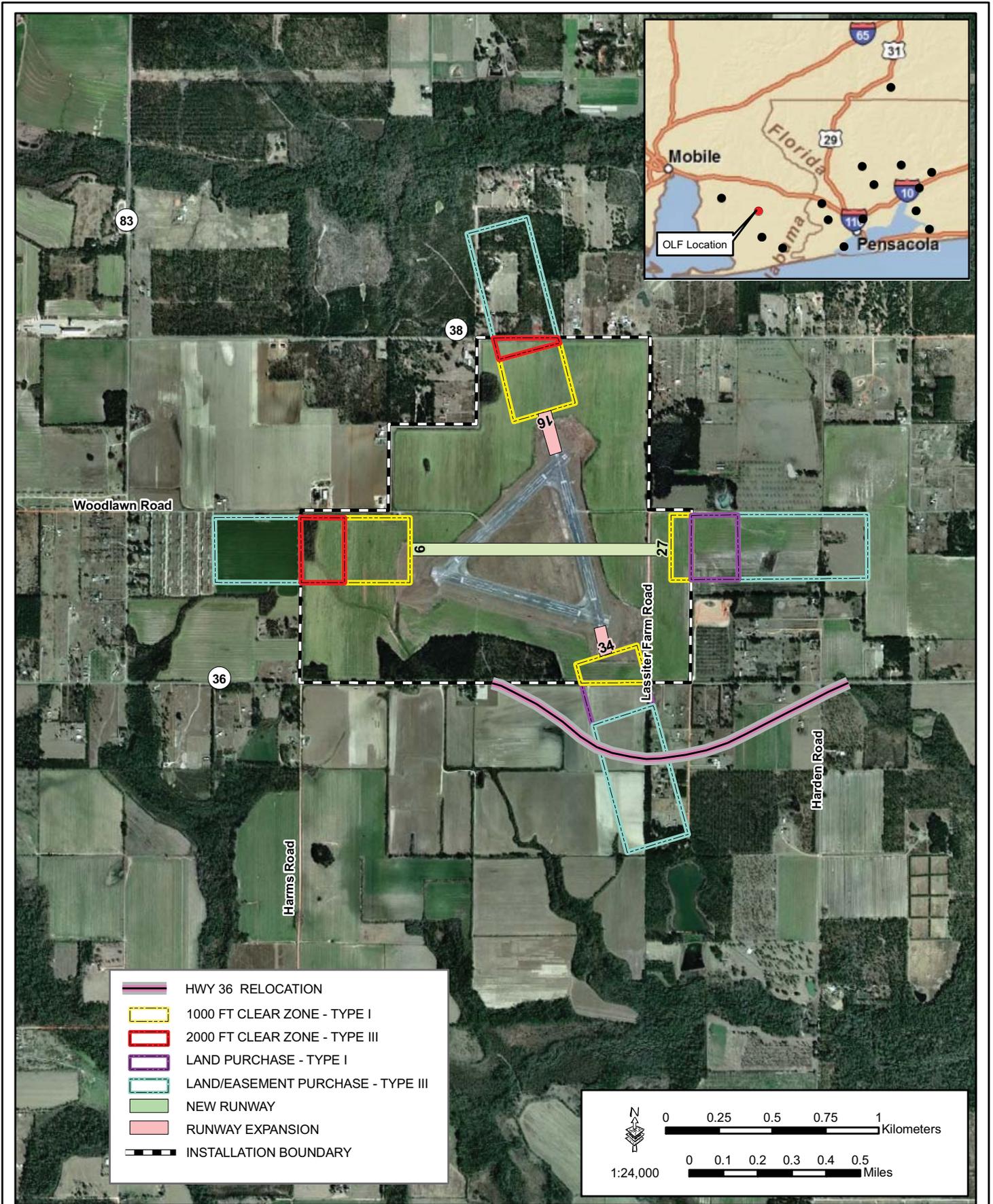


Figure 2-8: Summerdale NOLF Alternative 8



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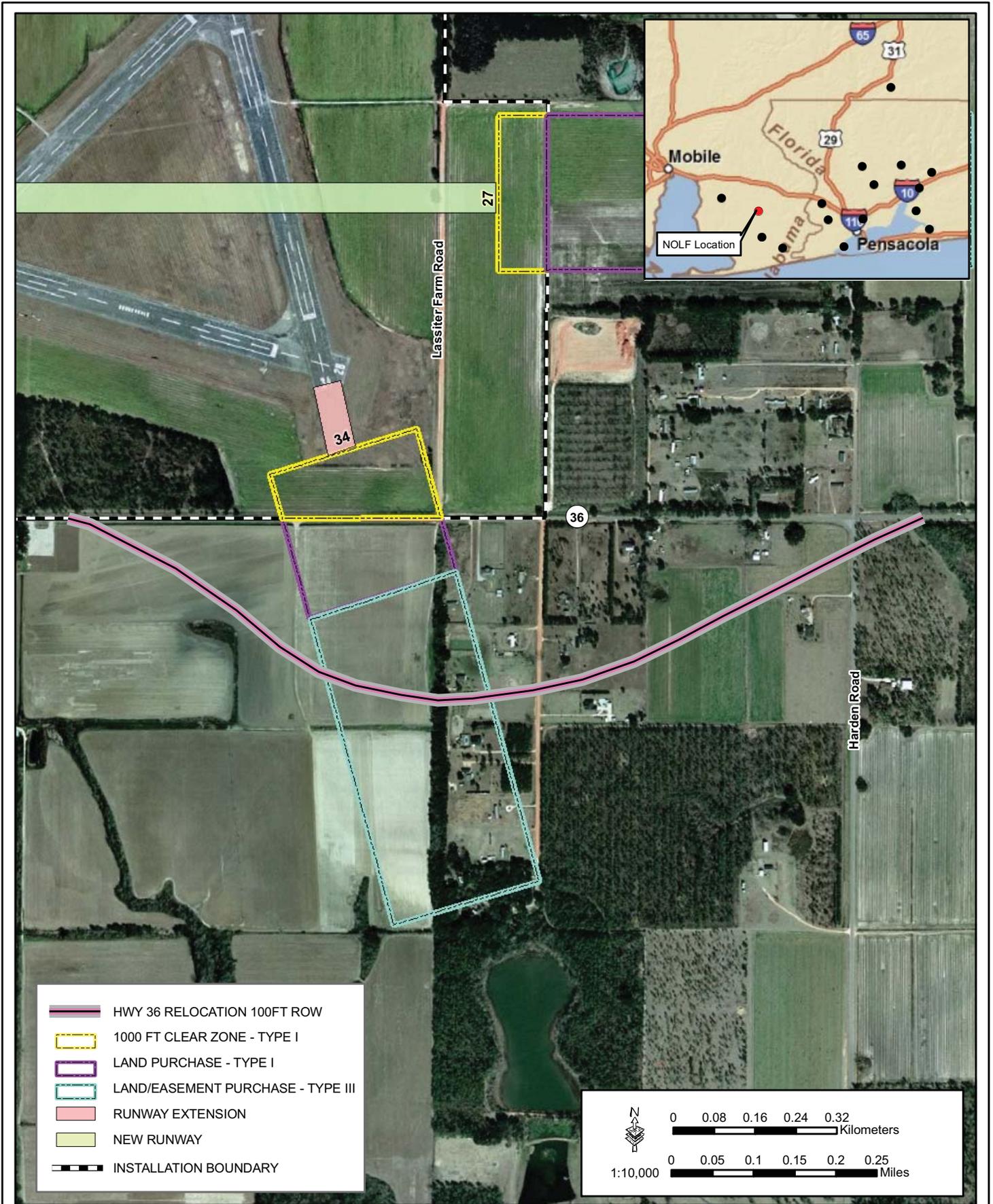


Figure 2-9: County Road 36 Relocation 100ft ROW



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runway extensions and clear zones. The total additional acreage acquired at both NOLFs would be approximately 238 acres.

2.2.9 Alternative 9: Barin NOLF, New Runway 9-27 at Summerdale NOLF and Existing Runway 16-24 at Silverhill NOLF

This alternative would construct a new 4,000-foot long runway 9-27 at Summerdale NOLF for dual T-6 operations as described for Alternative 8 (see Figure 2-8). The remaining runways at Summerdale NOLF would be abandoned. The existing Runway 16-34 at Silverhill NOLF would be extended to a length of 4,000 feet for dual T-6 operations, as described for Alternative 6 (see Figure 2-4). Both runways at Barin NOLF would be extended to 5,000 feet as in the Proposed Action. Type I and Type III clear zones would be placed at the ends of the modified runways at all fields. This would require acquisition of approximately 225 acres of private property beyond the current field boundaries at all fields. Existing structures, including residences, within runway extensions and clear zones at Barin, Summerdale and Silverhill NOLFs would be removed. Lassiter Farm Road would be relocated at Summerdale NOLF. This alternative would require the deployment of three crash crews when training operations are conducted, and training efficiency and flexibility would be limited by lack of cross-wind runways at a single field for dual operations.

2.2.10 No Action Alternative

The CEQ's regulations and OPNAVINST 5090.1C require that a No Action Alternative be evaluated. Under the No Action Alternative, none of the existing NOLFs would be modified to meet operational requirements for the T-6, and T-34 training operations would continue at NASWF and the NOLFs. However, since the transition of training at NASWF from the T-34 to the T-6 is already mandated and underway, the No Action Alternative would result in a severe restriction of the training mission at NASWF, and is not a viable alternative. The No Action Alternative will serve as a baseline against which the impacts of the Proposed Action and other viable alternatives can be evaluated.

2.3 OTHER ALTERNATIVES CONSIDERED, BUT ELIMINATED FROM FUTURE CONSIDERATION

2.3.1 Construction of a New NOLF for T-6 Operations

The cost of land acquisition and construction of a new NOLF sufficient for T-6 operations would be prohibitive, considering the comparative costs for modification of existing NOLFs to meet

mission needs. The time required for acquisition of property and construction of a new NOLF would extend beyond the time required for securing new NOLFs to meet training requirements for the T-6 aircraft deployment. Suitable land within the South MOA for construction of a new NOLF would face the same or greater impacts being evaluated for the existing NOLFs. Impacts on private property owners and structures would also be much greater than for the Proposed Action, since the area needed for a new NOLF would be approximately 600 acres.

2.3.2 Modification of T-6 Aircraft for Existing NOLF Conditions

Modification of the T-6 aircraft for Navy use on existing NOLFs with 3,000-foot runways by adding a reversible propeller system and an improved braking system would require redesign and recertification of the aircraft, and would require greater time for implementation than is available to meet the training mission requirements. It would also be contrary to the primary purpose of JPATS to provide a single training platform that is uniform across all of the U.S. Armed Forces.

2.4 COMPARISON OF ALTERNATIVES

In order to evaluate the relative impacts for each NOLF being evaluated in this EA, and to guide NASWF in their decision on the Proposed Action, Table 2-2 presents potential impacts for expansion of NOLFs to meet T-6 training requirements, with potential impacts associated with the implementation of each of the alternatives being considered. Detailed analysis of impacts associated with each of the alternatives considered can be found in Section 4 of this EA.

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Table 2-2. Potential Resource Impacts for the Alternatives Evaluated in the EA

Impacted Resources	Alternative 1 Barin and Summerdale 10-28 and 4-22 (Proposed Action)	Alternative 2 Barin and Silverhill	Alternative 3 Barin and Choctaw	Alternative 4 Summerdale (solo) and Silverhill	Alternative 5 Barin and Wolf	Alternative 6 Barin, Silverhill and Summerdale	Alternative 7 Barin and Summerdale 10-28 and 16-34	Alternative 8 Barin and Summerdale (new runway 9-27 and 16-34)	Alternative 9 Barin, Silverhill and Summerdale (new runway 9-27)	No Action Alternative
Land Use/Purchase	203 acres	222 acres	0 acres	441 acres	205 acres	219 acres	232 acres	238 acres	225 acres	None
Agriculture Loss	148 acres	138 acres	0 acres	138 acres	109 acres	151 acres	138 acres	107 acres	163 acres	None
Silviculture Loss	17 acres	25 acres	0 acres	15 acres	55 acres	25 acres	17 acres	24 acres	25 acres	None
Residences within the AICUZ/APZ	302 Decrease of 85	205 Decrease of 58	151 No change	185 Decrease of 150	143 Decrease of 20	219 Decrease of 194	183 Decrease of 118	190 Decrease of 101	229 Decrease of 184	425 No change at any NOLFs
Topographic Fill	Clear zone fill at Summerdale and Barin	Clear zone fill at Silverhill and Barin	None	Clear zone fill at Silverhill	Clear zone fill at Wolf and Barin	Clear zone fill at Barin	Clear zone fill at Barin	Clear zone fill at Barin	Clear zone fill at Barin	None
Surface Water Impacts	None	None	None	None	None	None	None	None	None	None
Wetland Impacts	1.0 acre	1.4 acres	0.33 acre	1.08 acres	16.3 acres	0.33 acre	0.33 acre	0.33 acre	0.33 acre	None
Biological Impacts	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	None
Threatened & Endangered Species Impacts	None	None	None	None	None	None	None	None	None	None
Air Quality Impacts	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant	None
Noise Impacts (greater than 65 dBA)	All noise impacts are within the NOLF property boundaries	All noise impacts are within the NOLF property boundaries	All noise impacts are within the NOLF property boundaries	All noise impacts are within the NOLF property boundaries	All noise impacts are within the NOLF property boundaries	All noise impacts are within the NOLF property boundaries	All noise impacts are within the NOLF property boundaries	All noise impacts are within the NOLF property boundaries	All noise impacts are within the NOLF property boundaries	None
Residence Removal (Estimated) *	24	19	None	68	3	21	31	21	11	None
Annual Property Tax Loss	\$18,025	\$26,939	None	\$25,726	\$10,703	\$20,510	\$19,325	\$19,093	\$18,718	None
Cultural Resources Impacts	None	Silverhill possible impacts	None	Silverhill possible impacts	None	None	None	None	None	None
Road Relocation	Doc McDuffie Road Lassiter Farm Road	Doc McDuffie Road Raines Road	None	County Road 36, County Road 38, Lassiter Farm Road, Raines Road	Doc McDuffie Road	Doc McDuffie Road Lassiter Farm Road	Doc McDuffie Road, Lassiter Farm Road, County Road 36	Doc McDuffie Road, Lassiter Farm Road, County Road 36	Doc McDuffie Road Lassiter Farm Road	None
Air Traffic Conflicts	Minimal	Minimal	Significant	Minimal	Significant	Minimal	Minimal	Minimal	Minimal	None

* Residence Removal totals for each alternative were determined in GIS from the estimated number of residences within the Clear Zone footprints visible on aerial photographs for each NOLF.

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SECTION 3.0
EXISTING CONDITIONS



3.0 EXISTING CONDITIONS

This section describes the existing environment that may be affected by the Proposed Action and alternatives. The Proposed Action is located in southern Alabama. Southern Alabama's climate is classified as subtropical marine, and is characterized by hot, humid, and breezy summers with mild winters (Navy 2006a). Baldwin County has an annual average temperature of 67.5 degrees Fahrenheit (F), and receives 65.9 inches of rainfall per year, on average (World Climate 2010). January is generally the coldest month of the year (*i.e.*, average minimum temperature of 39.9 degrees F and July is typically the warmest month of the year (*i.e.*, average maximum temperature of 91.2 degrees F, although the area may experience high temperatures throughout the summer months.

Rainfall is periodically influenced by weather disturbances, such as cold fronts, thunderstorms, and tropical systems, such as hurricanes, all of which result in unpredictable weather patterns. The frequency of hurricanes is greatest between August and October; however, hurricane season is from June through November (National Climate Data Center 2010). In an average 3-year period, five hurricanes strike the U.S. coastline, and on average, once every 17 years a hurricane strikes the Alabama/Florida panhandle with fringe effects every 5 years (NOAA 2004, Navy 2006a). The most recent hurricanes impacting the project area were Hurricane Ivan in 2004 and Hurricanes Dennis and Katrina in 2005. The Proposed Action would not affect or be affected by the weather, so weather will not be addressed further in the EA.

Because it was determined that there would be no impacts on geology from the proposed project, and only surface soil disturbance, geologic resources are not discussed. The Proposed Action would not take place within the Alabama Coastal Zone Management Area (CZMA), and the only NOLF being considered in the Florida Coastal Management Area (Choctaw) would not be disturbed. None of the alternatives would otherwise affect Florida's or Alabama's coastal use or resources. Therefore, CZMA consistency will not be addressed in the EA. The description of the existing conditions for all resources is based upon site visits conducted in October 2008, April 2009 and January 2010, discussions with NASWF personnel, discussions with Federal, state and local resource agency representatives, and a review of past studies and reports.

3.1 LAND USE

Land use on and in the vicinity of the NOLFs being evaluated in this EA is generally rural in nature. Agriculture and silviculture (timber production) activities are the most common use of the land, and rural farm residences with associated outbuildings are common. All of the NOLFs have been in use since the 1940s, and an AICUZ study (Navy 1990) exists for NASWF and its NOLFs that addresses the operations of the T-34 aircraft. Within the 1990 AICUZ study, land use recommendations are provided for each NOLF to prevent uses and structures incompatible with aircraft operations. A new AICUZ study is underway that will define the AICUZ footprint for each NOLF to reflect the new T-6 aircraft operations. The current AICUZ depicted in this EA for each NOLF is a combination of the 1990 AICUZ study footprints, modified to match the new current footprint defined for Barin NOLF in the 2000 EA for JPATS deployment (Navy 2000).

Within the AICUZ footprint for each NOLF, land use restrictions are recommended to prevent uses and structures incompatible with aircraft operations. County zoning is responsible for implementing the land use restrictions within the AICUZ footprint for each NOLF. Within the AICUZ, the APZs are identified based on the relative risk of an aircraft accident impacting structures and persons on the ground. The highest risk APZ is adjacent to the ends of the runway (APZ-1, including the clear zones), and APZ risk decreases with distance from the runway and maneuvering and turn points in the NOLF landing and takeoff pattern. APZ I and APZ II shown are areas beyond the clear zones which still possesses a measureable potential for accidents. No residential housing is recommended within APZ-I; and within APZ-II, residential housing is recommended at no greater than one to two dwelling units per acre, according to UFC 3-260-01, *Airport and Heliport Planning and Design* (Air Force Civil Engineer Support Agency 2006) and OPNAVINST 11010.36C (Navy 2008c). Noise environment related to land use is also addressed in the AICUZ study, and the existing noise environment and impacts are addressed in Sections 3.7 and 4.7.

Land use on Federal property at all NOLFs is based on the operational needs and military mission requirements. All of the NOLFs are used for active flight training, utilizing the T-34 training aircraft. The non-runway areas at NOLFs Summerdale, Wolf and Silverhill are leased for non-military agricultural production. There are no agricultural leases at Barin NOLF.

3.1.1 Barin NOLF

Barin NOLF occupies 781 acres of land, which includes two active runways, parking and tie-down areas and a permanent crash safety building for aircraft operations. The areas surrounding Barin NOLF are the most populated of the NOLFs being considered, and consist of single family residences and agricultural lands, with several small businesses. Land use around the field would be classified as rural to urban residential and rural agricultural land, but is not zoned by the county. Barin NOLF is currently used for active T-34 flight operations and T-6 operations from other Navy installations. The current AICUZ for Barin NOLF is shown in Figure 3-1. Right traffic (right turns in the approach and takeoff pattern) is used for most operations at Barin NOLF, except for practice precautionary emergency landings (PPEL). Within the AICUZ footprint for Barin NOLF, there are approximately 151 residential structures within APZs I and II. This exceeds the restrictions in APZ I and density recommendations in APZ II as written in the UFC and Navy regulations (OPNAVINST 11010.36C, Navy 2008c).

3.1.2 Summerdale NOLF

Summerdale NOLF occupies 572 acres of land, which includes three active runways for aircraft operations. Areas not used for aircraft operations on the field are leased for private agricultural production. The areas surrounding Summerdale NOLF are moderately populated, and consist of single family residences and agricultural lands, with several small businesses. Land use around the field would be classified as rural residential and rural agricultural land, but is not zoned by the county. Summerdale NOLF is currently used for active T-34 flight operations involving approaches and maneuvering only.

The current AICUZ for Summerdale NOLF is shown in Figure 3-2. Right traffic is normally used at Summerdale NOLF, and left traffic is used for PPEL practice. Within the AICUZ footprint for Summerdale NOLF, there are approximately 150 residential structures within APZs I and II. This exceeds the restrictions in APZ I and density recommendations in APZ II as written in the UFC and Navy regulations (OPNAVINST 11010.36C, Navy 2008c).

3.1.3 Silverhill NOLF

Silverhill NOLF occupies 396 acres of land, which includes three active runways for aircraft operations. Areas not used for aircraft operations on the field are leased for private agricultural production. The areas surrounding Silverhill NOLF are moderately populated, and consist of rural residential and agricultural lands. Land use around the field would be classified as rural

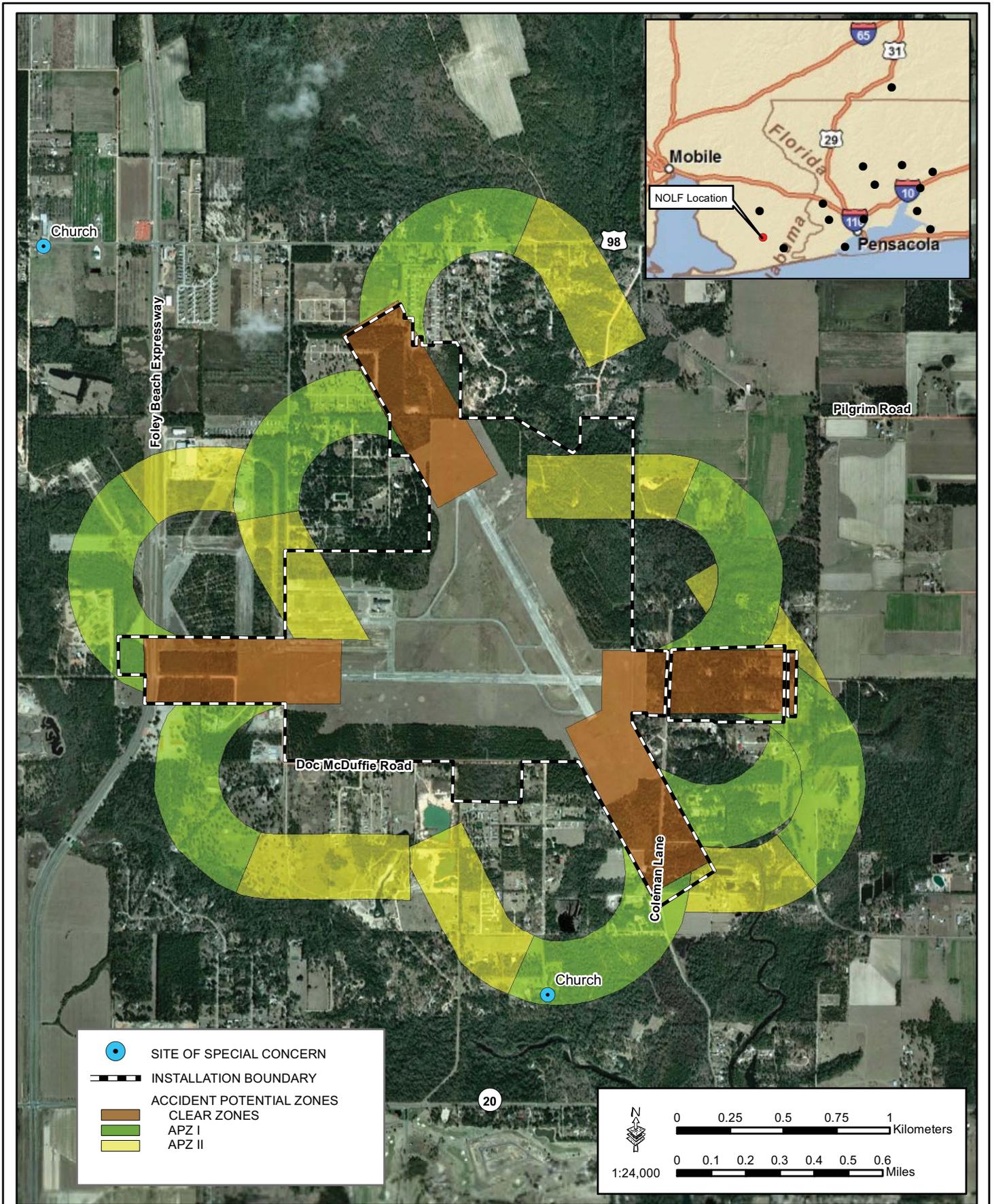


Figure 3-1: Barin NOLF Existing AICUZ

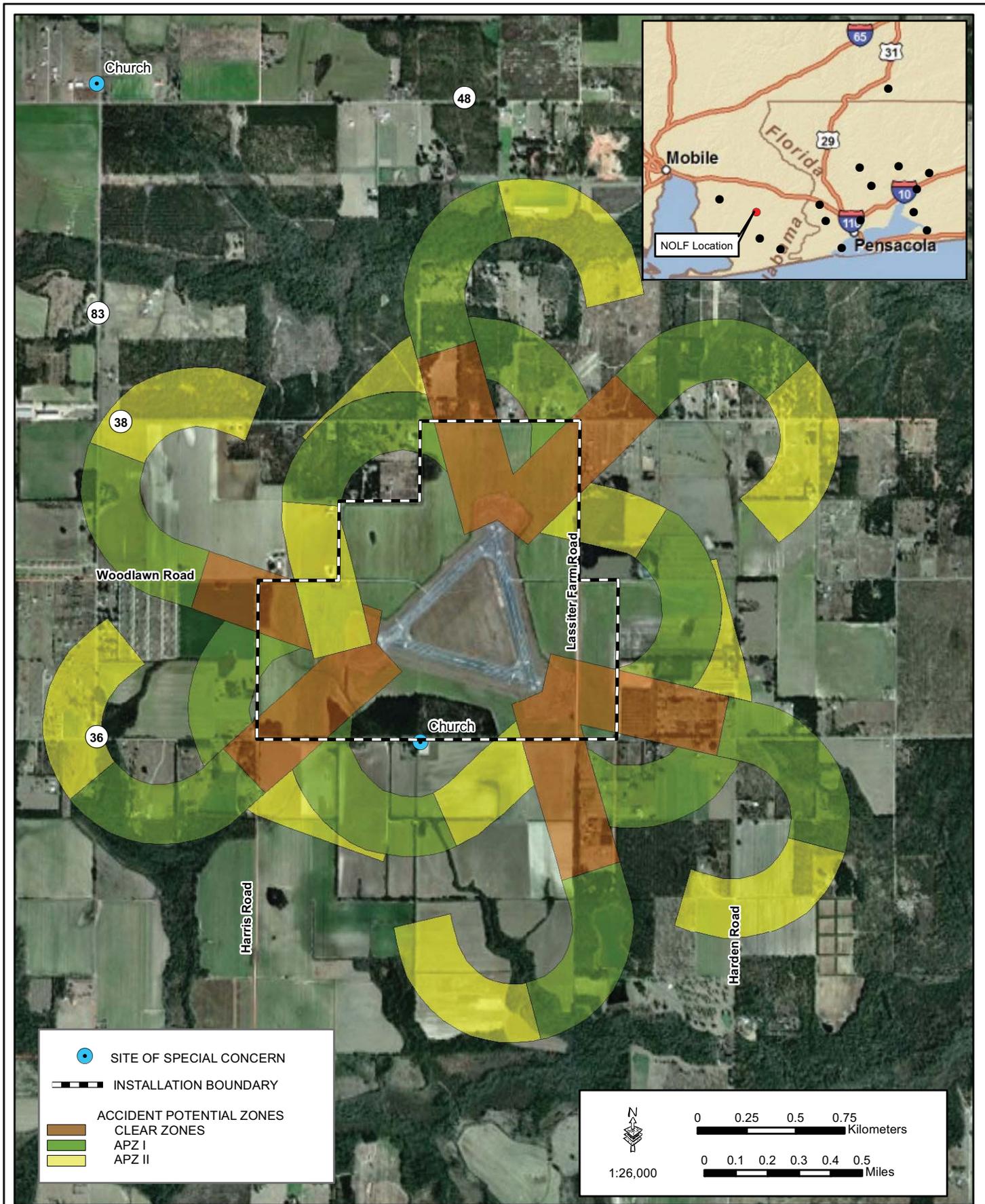


Figure 3-2: Summerdale NOLF Existing AICUZ

residential and rural agricultural land, and is zoned as Rural Agricultural District and Single Family Estate District by the county. Silverhill NOLF is currently used for active T-34 flight operations, including runway touch-downs.

The current AICUZ for Silverhill NOLF is shown in Figure 3-3. Right traffic is normally used at Silverhill NOLF, with left traffic for PPEL. Within the AICUZ footprint for Silverhill NOLF, there are approximately 112 residential structures within APZ I and APZ II. This exceeds the density restrictions in APZ I and density recommendations in APZ II as written in the UFC and Navy regulations (OPNAVINST 11010.36C, Navy 2008c).

3.1.4 Choctaw NOLF

Choctaw NOLF is located entirely on Eglin AFB. Areas surrounding Choctaw NOLF are not populated, and all surrounding property is used for military training purposes. Land use would be classified as military use only. Choctaw NOLF is currently used for active flight operations by T-34 and advanced jet aircraft, and has an active air traffic control tower. The AICUZ for Choctaw NOLF is entirely within the Eglin AFB property, so no incompatible land use or structure density is present within that AICUZ footprint.

3.1.5 Wolf NOLF

Wolf NOLF is the southernmost NOLF in Baldwin County. It is situated on 421 acres in a sparsely populated area, with primarily agricultural and forestry activities adjacent to the field. Areas not used for aircraft operations on the field are leased for private agricultural production. Land use would be classified as rural residential and rural agricultural land, and is zoned as Rural Agricultural District, and within the Orange Beach City Limits, by the county. Wolf NOLF is currently used for T-34 flight operations involving approaches and maneuvering only.

The current AICUZ for Wolf NOLF is shown in Figure 3-4, based on the assumption that touch-and-go landings with a standard pattern would occur at Wolf NOLF. Right traffic is used at Wolf NOLF, but it is currently used only for practice approaches, with no landings. Within the AICUZ footprint for Wolf NOLF, there are approximately 12 residential structures within APZ I and APZ II. This exceeds the density restrictions in APZ I, but is within the density recommendations in APZ II as written in the UFC and Navy regulations (OPNAVINST 11010.36C, Navy 2008c).

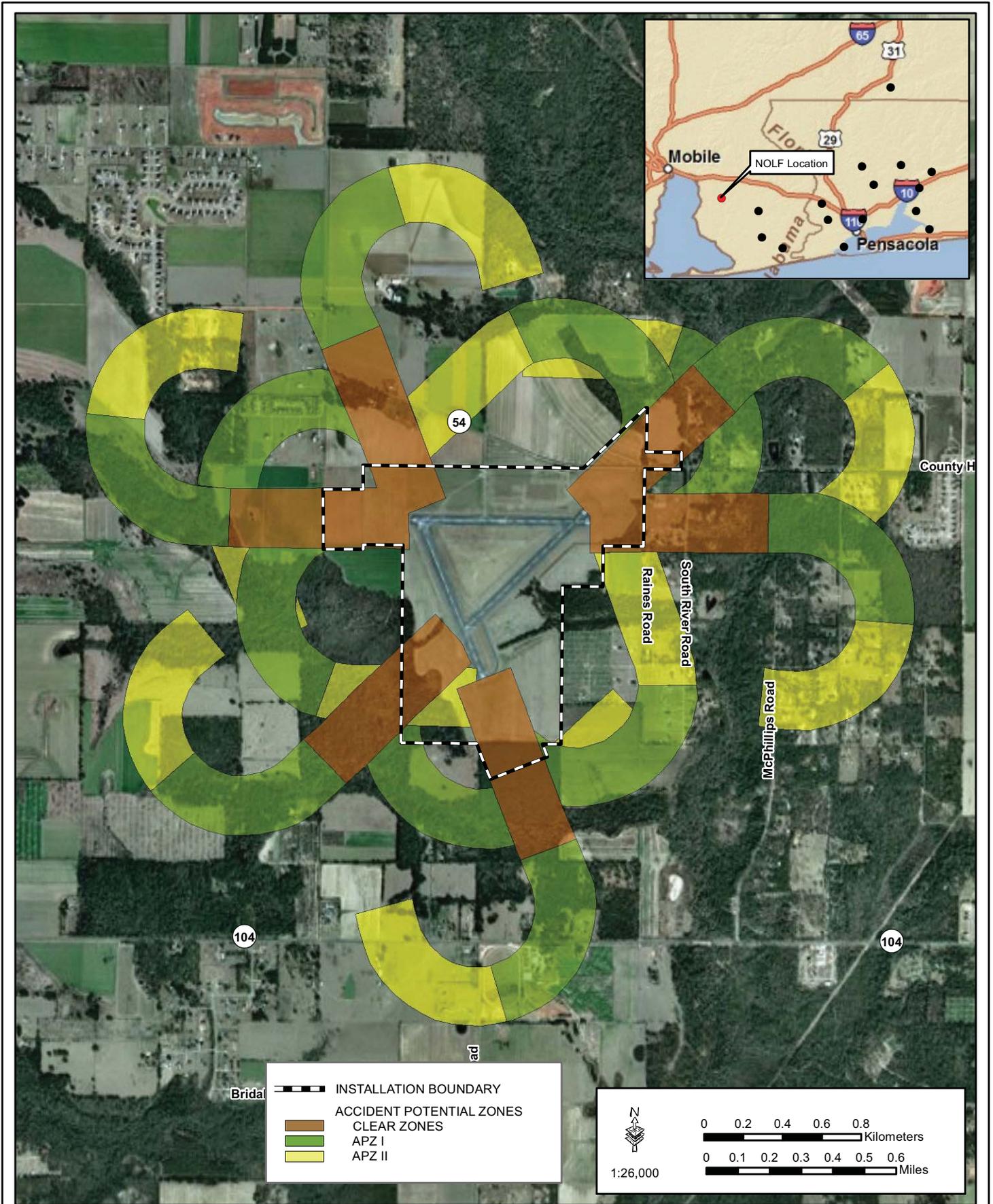


Figure 3-3: Silverhill NOLF Existing AICUZ



July 2010

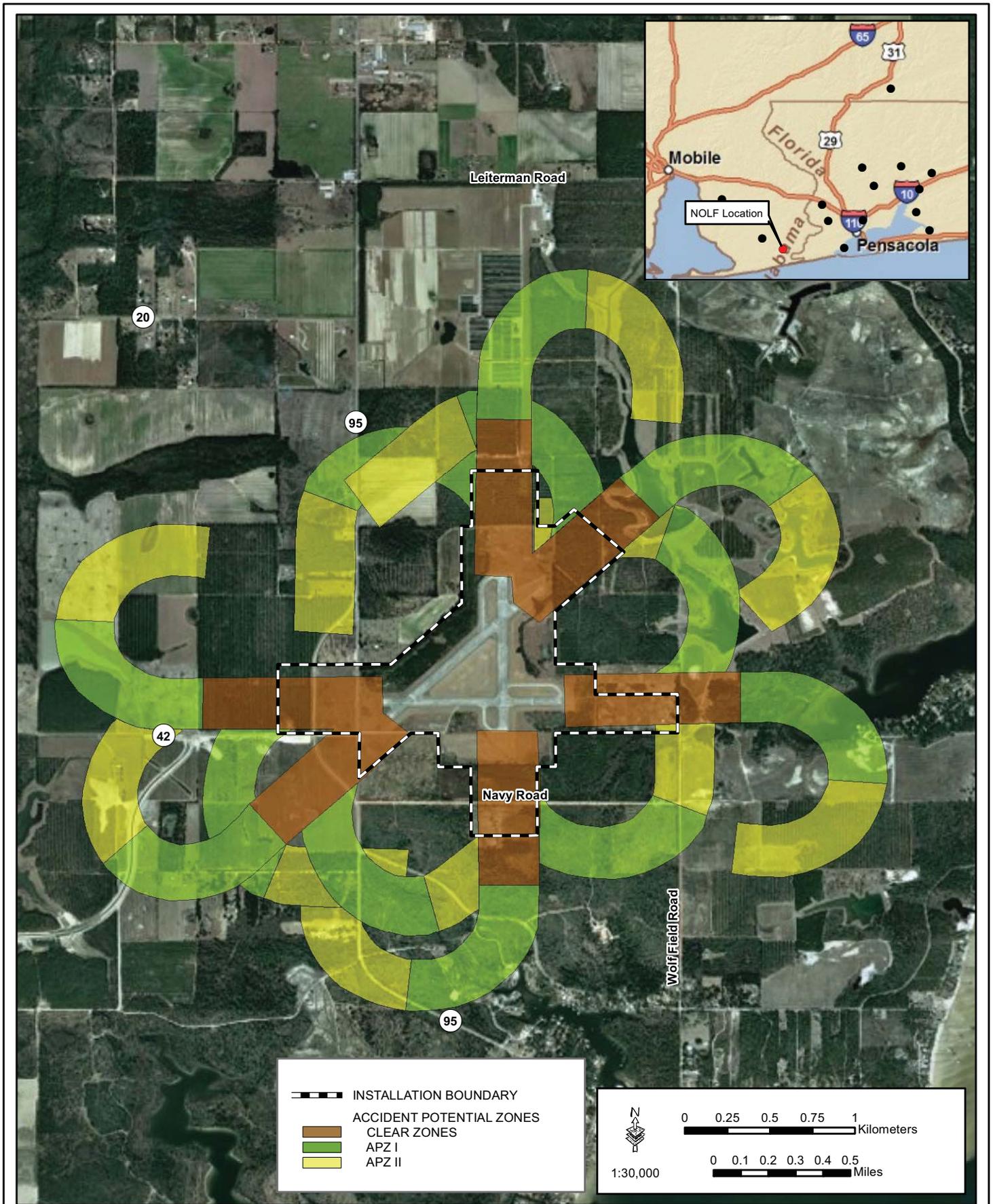


Figure 3-4: Wolf NOLF Existing AICUZ

3.2 AGRICULTURE AND SILVICULTURE

Most of the undeveloped land around the alternative NOLFs being considered in this EA is utilized for agricultural row crops or for silviculture. Some of the NOLFs are also leased by the Navy to private parties for agricultural purposes in field areas not needed for aviation activities.

3.2.1 Barin NOLF

Barin NOLF is not leased for agricultural production on non-runway areas. Within the current property boundaries, there is silviculture in the form of pine tree production.

3.2.2 Summerdale NOLF

Summerdale NOLF is leased for agricultural production on non-runway areas, and agricultural production is present on most open property adjacent to the field. There is no silviculture activity on Summerdale NOLF or adjacent properties.

3.2.3 Silverhill NOLF

Silverhill NOLF is leased for agricultural production on non-runway areas, and agricultural production is present on most open property adjacent to the field. There is silviculture activity on adjacent properties in the form of pine tree production.

3.2.4 Wolf NOLF

Wolf NOLF is leased for agricultural production on non-runway areas, and agricultural production is present on most open property adjacent to the field. There is silviculture activity on adjacent properties in the form of pine tree production.

3.3 SOILS AND PRIME FARMLAND

Prime farmlands are protected under the Farmland Protection Policy Act (FPPA) of 1980 and 1995. The FPPA's purpose is to minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses. Prime farmlands are those farmlands that have the best combination of physical and chemical properties for producing food, feed, forage, fiber, and oilseed crops, and are available for these uses. Unique farmland is defined as land other than prime farmland that is used for producing specific high-value food and fiber crops (7 CFR § 657.5). According to the Natural Resources

Conservation Service (NRCS), there are prime or unique farmlands within the project area at NOLFs Barin, Summerdale, Silverhill and Wolf. However, as stated in the FPPA, “Acquisition or use of farmland by a Federal agency for national defense purposes is exempted by Section 1547(b) of the Act, 7 U.S.C. 4208(b)”; therefore, analysis of prime farmland soil impacts will not be evaluated further in this EA.

Soils associated with the Proposed Action and potential alternative sites construction areas are found in the following map units (Natural Resources Conservation Service [NRCS] 2008):

- Barin NOLF – Norfolk fine sandy loam, Scranton loamy fine sand, Lakeland loamy fine sand, Plummer loamy sand, Klej loamy fine sand and Grady soils (Figure 3-5).
- Summerdale NOLF – Norfolk fine sandy loam, Grady soils, Marlboro very fine sandy loam, Ruston fine sandy loam, Magnolia fine sandy loam and Faceville fine sandy loam (Figure 3-6).
- Silverhill NOLF – Red Bay fine sandy loam, Eustis loamy fine sand, Lakeland loamy fine sand, Ruston fine sandy loam and Norfolk fine sandy loam (Figure 3-7).
- Choctaw NOLF – Lakeland sand.
- Wolf NOLF – Klej loamy sand, Goldsboro fine sandy loam, Scranton loamy fine sand and Lakeland loamy fine sand (Figure 3-8).

All of the soils described above are common in the area; and none have particularly unique or valuable characteristics that would significantly affect other resources if these soils were disturbed during construction of runways or clear zones. None of the soils present on or in the vicinity of the NOLFs considered in this EA have any unsuitable engineering characteristics that would present difficulty with construction of runways or clear zones.

3.4 WATER RESOURCES

3.4.1 Surface Water

Surface water is water that resides on the top of the ground in the form of streams, ponds, rivers, lakes, marshes, and oceans. Surface water bodies located on Silverhill NOLF, Wolf NOLF and Summerdale NOLF consist of small ephemeral streams and ditches that convey surface storm water runoff. Sandy Creek, a perennial stream crosses an unused corner of the Barin NOLF property. Section 303(d) of the Clean Water Act (CWA) requires that states develop a list of waters not meeting water quality standards or not supporting their designated



Figure 3-5: Barin NOLF Soils

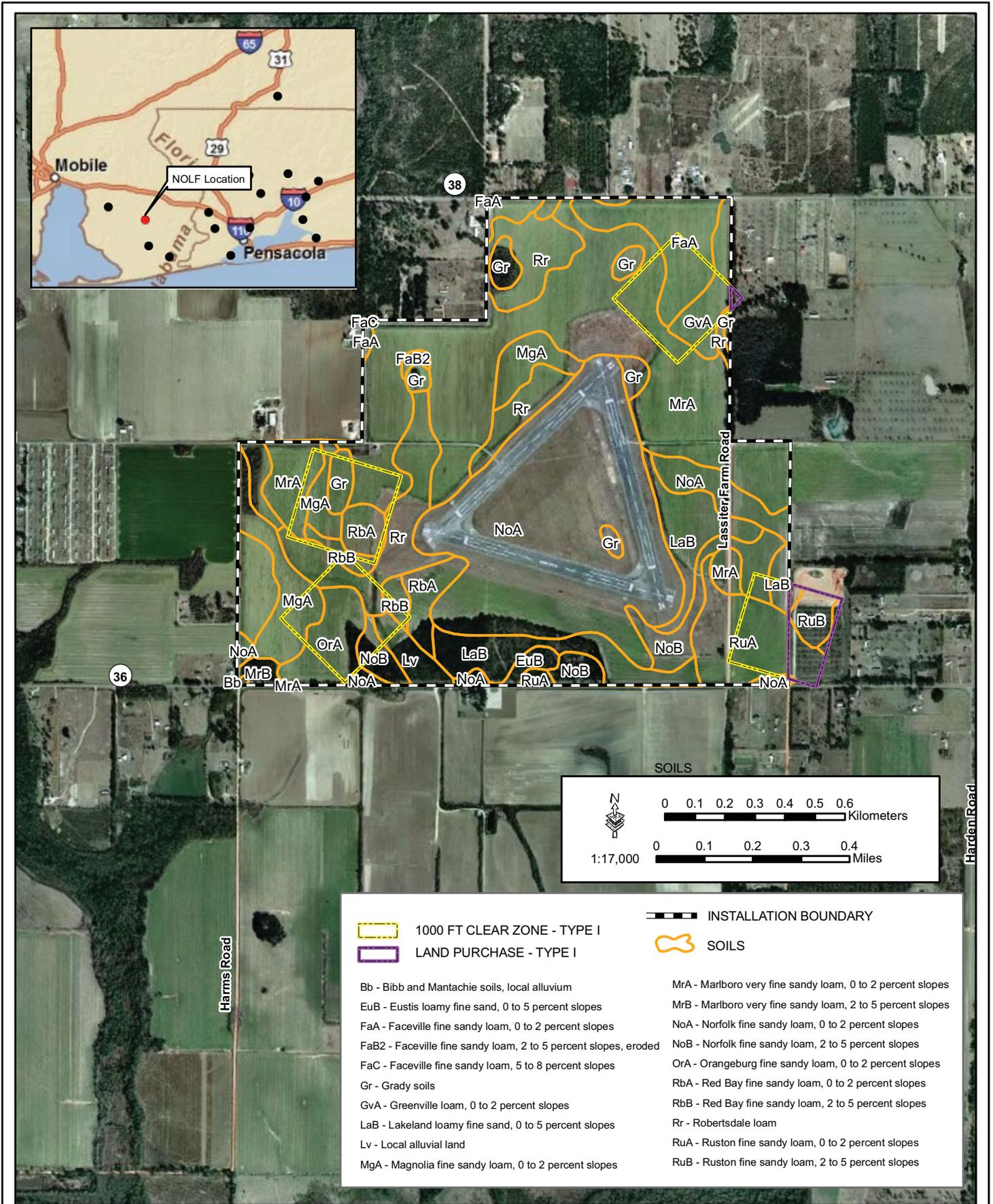


Figure 3-6: Summerdale NOLF Soils

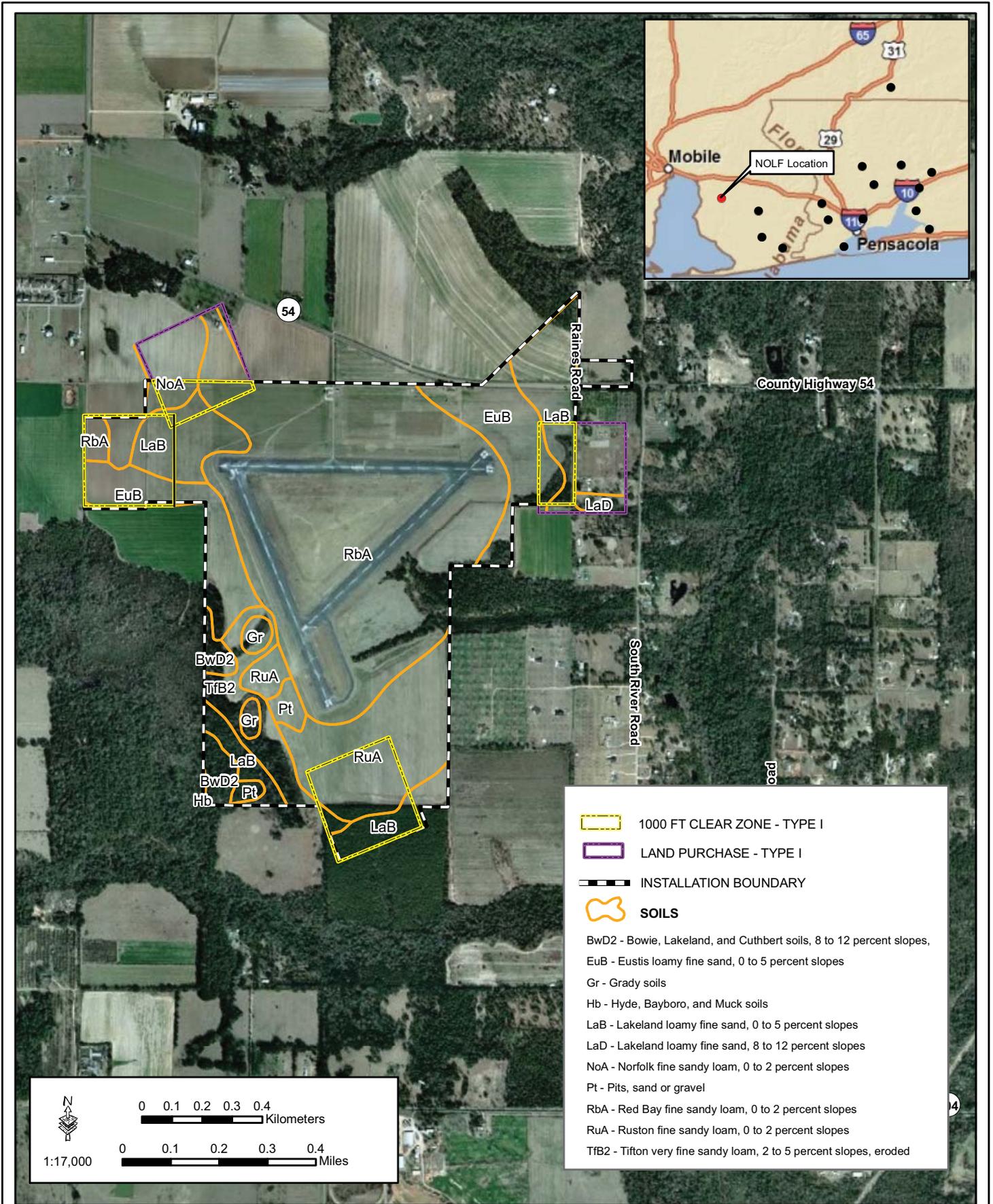


Figure 3-7: Silverhill NOLF Soils



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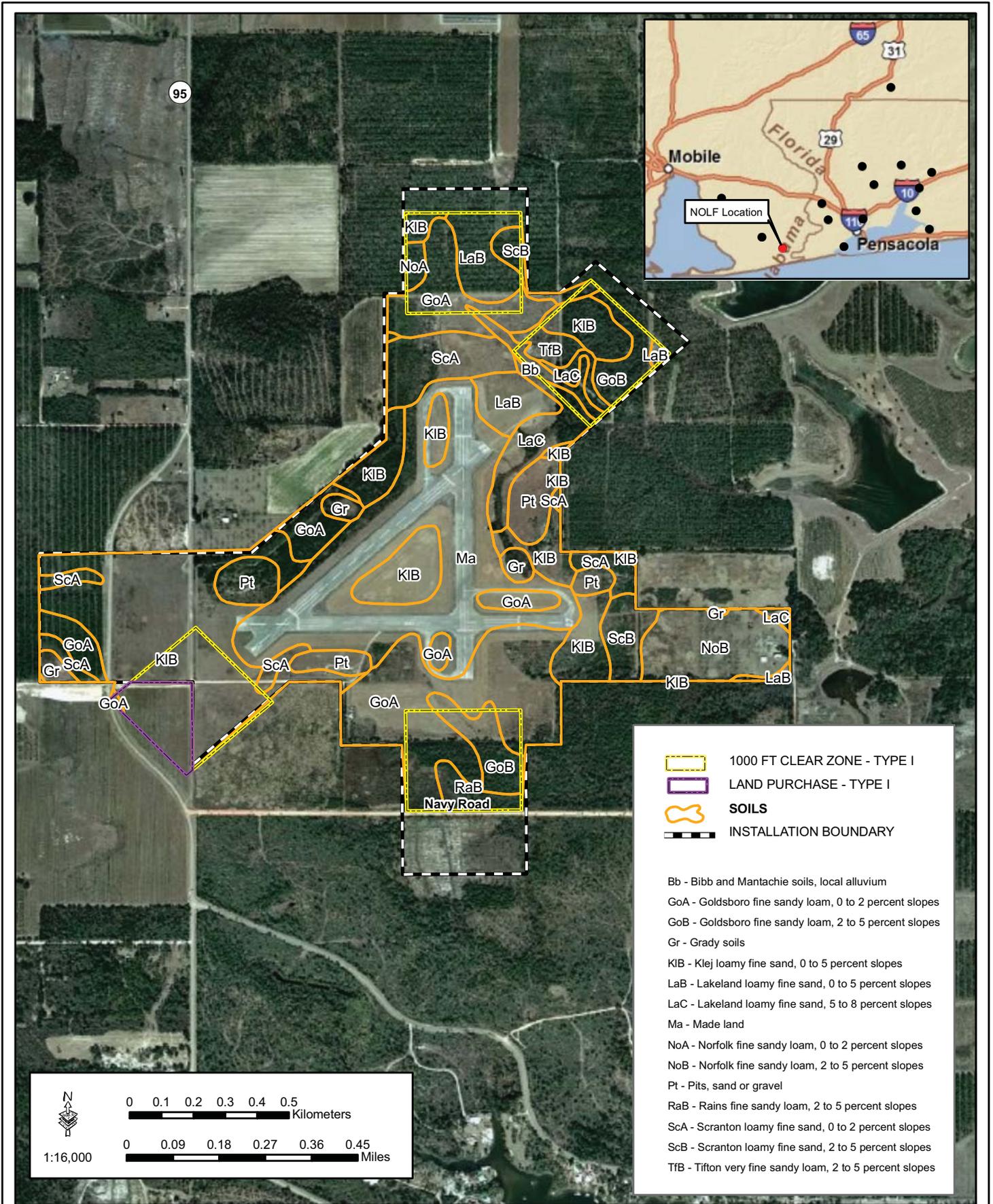


Figure 3-8: Wolf NOLF Soils



June 2010

uses. The Fish River, located east of Silverhill NOLF, is listed on the Alabama 2008 303(d) list due to mercury and pathogens impacting listed uses for swimming and wildlife.

3.4.1.1 *Barin NOLF Surface Water Resources*

Sandy Creek crosses the northeast corner of the Barin Field property; but, there are no natural surface water resources located within any of the Type I Clear Zones associated with the extension of runways at Barin NOLF. There are man-made storm water drainage ditches located on the field and on adjacent properties. Sandy Creek is located east of Barin NOLF, across Coleman Lane from the field, and would be located within the proposed Type III Clear Zone for Runway 9-27. Several man-made ponds are located around the field, and one 8,500 square foot pond (0.195 acre) is located within the Type I Clear Zone for the extension of Runway 9-27, along with an adjacent 5,900 square foot wetland (0.135 acre).

3.4.1.2 *Summerdale NOLF Surface Water Resources*

There are no natural surface water resources located on Summerdale NOLF or within any of the Type I Clear Zones associated with the extension of runways at Summerdale NOLF. There are man-made storm water drainage ditches located on the field and on adjacent properties, as well as along roads bordering the field. A field drain crossing the southwest part of the NOLF is classified as Waters of the U.S. (WUS), a conveyance, subject to the jurisdiction of the U.S. Army Corps of Engineers due to its connection between two wetland areas. This WUS would be within the Type I Clear Zone for the extension of Runway 4-22.

3.4.1.3 *Silverhill NOLF Surface Water Resources*

There are no natural surface water resources located on Silverhill NOLF or within any of the Type I Clear Zones associated with the extension of runways at Silverhill NOLF. There are man-made storm water drainage ditches located on the field and on adjacent properties. One of these storm water ditches extends across the east end of Runway 9-27 into a disturbed wetland area, which is within the Type I Clear Zone for the extension of that runway. The Fish River is located east of the field, and would be located within the potential Class III Clear Zone for Runway 9-27. The Fish River is listed as impaired on the 2008 Alabama 303(d) list of impaired streams for wildlife and swimming uses due to mercury from unknown sources and pathogens from pasture grazing. An unnamed tributary to the Fish River is located southwest of the field.

3.4.1.4 Wolf NOLF Surface Water Resources

There are no surface water resources located on Wolf NOLF or within any of the Type I Clear Zones associated with the extension of runways at the field. There are manmade storm water drainage ditches located on adjacent properties, and several small streams are located within 1 mile of the field.

3.4.2 Groundwater

Groundwater is water that resides in cracks and small spaces between rocks and soil particles (interstitial spaces) within the ground. When precipitation occurs, most water that runs into surface water bodies, gets used by plants, or evaporates. The water that is not subject to these processes percolates downward into the ground. This creates a zone of saturation, where all the interstitial spaces are filled with water. The top of this saturated zone is called the water table, and where the water table reaches land surface the groundwater is discharged into marshes, lakes, streams, or springs (Navy 2006a).

Aquifers are areas where groundwater exists in sufficient quantities, enough to supply wells or springs, and are generally recognized as either confined or unconfined. Where aquifers are sandwiched between layers of impermeable materials, they are referred to as confined. Confined aquifers usually occur at greater depths than do unconfined aquifers. The upper boundaries of unconfined aquifers are found closer to the land surface.

There are no groundwater resources utilized by any of the NOLFs being considered for this EA. Construction and ground clearing actions proposed would require temporary minor use of groundwater for dust control, soil compaction and concrete, but would not have a long-term effect on groundwater supply. No actions are proposed that would affect the recharge or integrity of any potable water aquifers in the area, because of the relatively small area of undeveloped land proposed for construction of the extended runways, and the limited aquifer recharge potential in the areas of new construction. Only surface soils would be affected by new construction, and no hazardous materials would be introduced at any of the NOLFs, other than temporary fuel use during construction. Therefore, groundwater will not be addressed further in this EA.

3.4.3 Floodplains

Floodplains are defined as low and relatively flat areas adjoining inland and coastal waters, and include flood-prone areas of offshore islands. The Federal Emergency Management Agency (FEMA) defines these areas as being subject to a 1 percent or greater chance of flooding in any given year. According to FEMA 100-year Flood Insurance Rate Maps, except for a small unused corner of Barin NOLF, none of the NOLFs being considered for this EA are located within the 100-year floodplain. While floodplains associated with nearby streams and rivers are located near the NOLFs, no construction is proposed in any floodplain zones. Therefore, floodplains will not be addressed further in this EA.

3.4.4 Wetlands

Wetlands are generally considered to be transitional zones between the terrestrial and aquatic environment. These areas are characterized by physical, chemical, and biological features indicative of their hydrologic cycle of extended inundation and subsequent dewatering. Currently, wetlands are regulated by the USACE under Section 404 of the CWA of 1972, and by Alabama Department of Environmental Management (ADEM). A delineation of wetlands on all of the alternative NOLFs was completed (except for Choctaw NOLF), and the distribution of wetlands on and near each NOLF is depicted in Figures 3-9 through 3-12. The wetlands consist of man-made drainage ditches, minor ephemeral drainages in fields, intermittent small natural drains and streams, and forested wetland areas. Each of the NOLFs being considered in this EA, with the exception of Choctaw NOLF, would have wetlands within Type 1 Clear Zones that would be impacted by runway extension activities. The size of wetlands within Type I Clear Zone impact areas for each alternative field expansion is as follows:

- Barin NOLF – 0.33 acre
- Summerdale NOLF – 0.69 acre
- Silverhill NOLF – 1.08 acres
- Wolf NOLF – 15.98 acres

Type III Clear Zones would require tree trimming only, and if wetlands are present, then tree removal would be by hand cutting only to avoid wetland impacts.

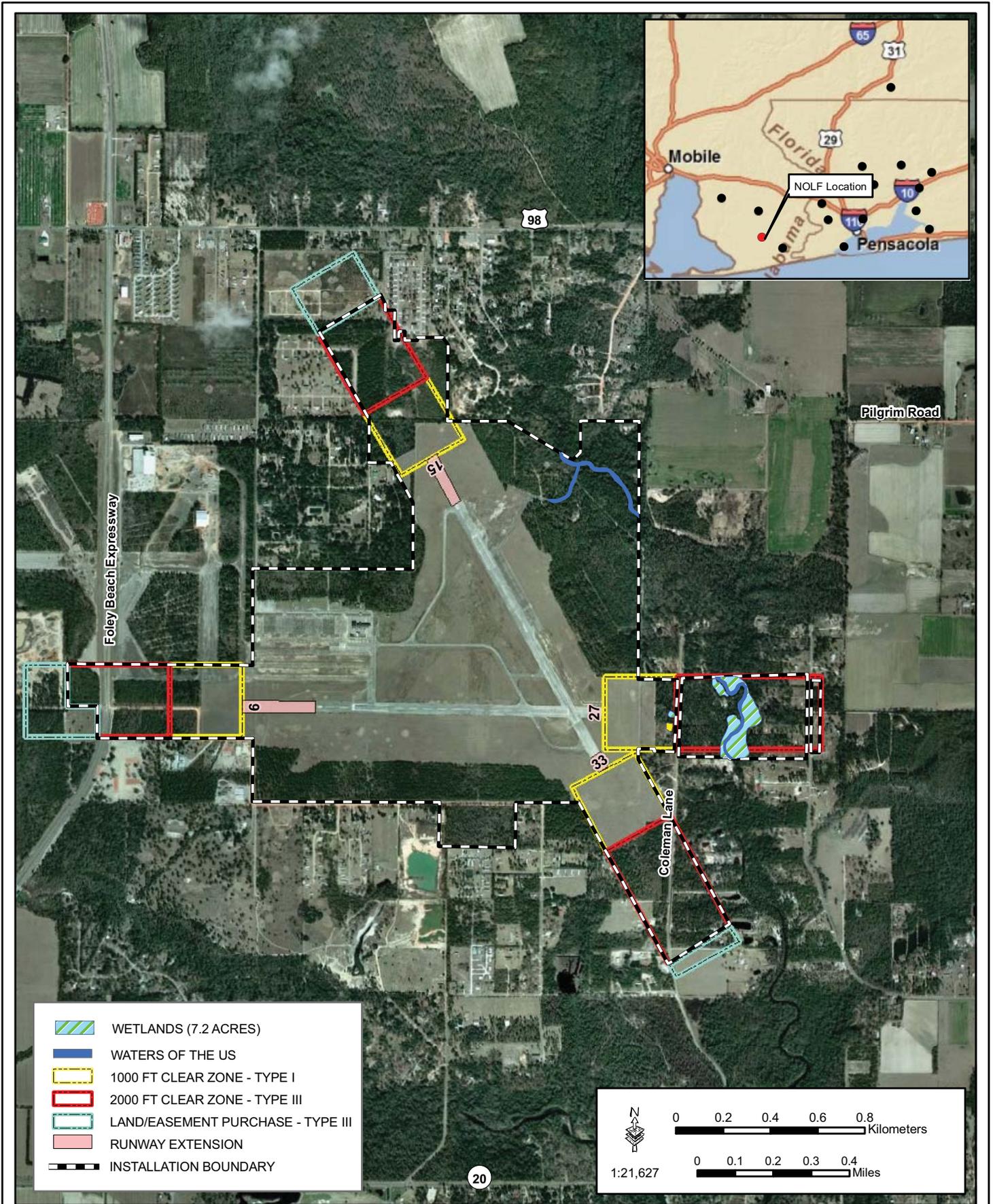


Figure 3-9: Barin NOLF Wetlands

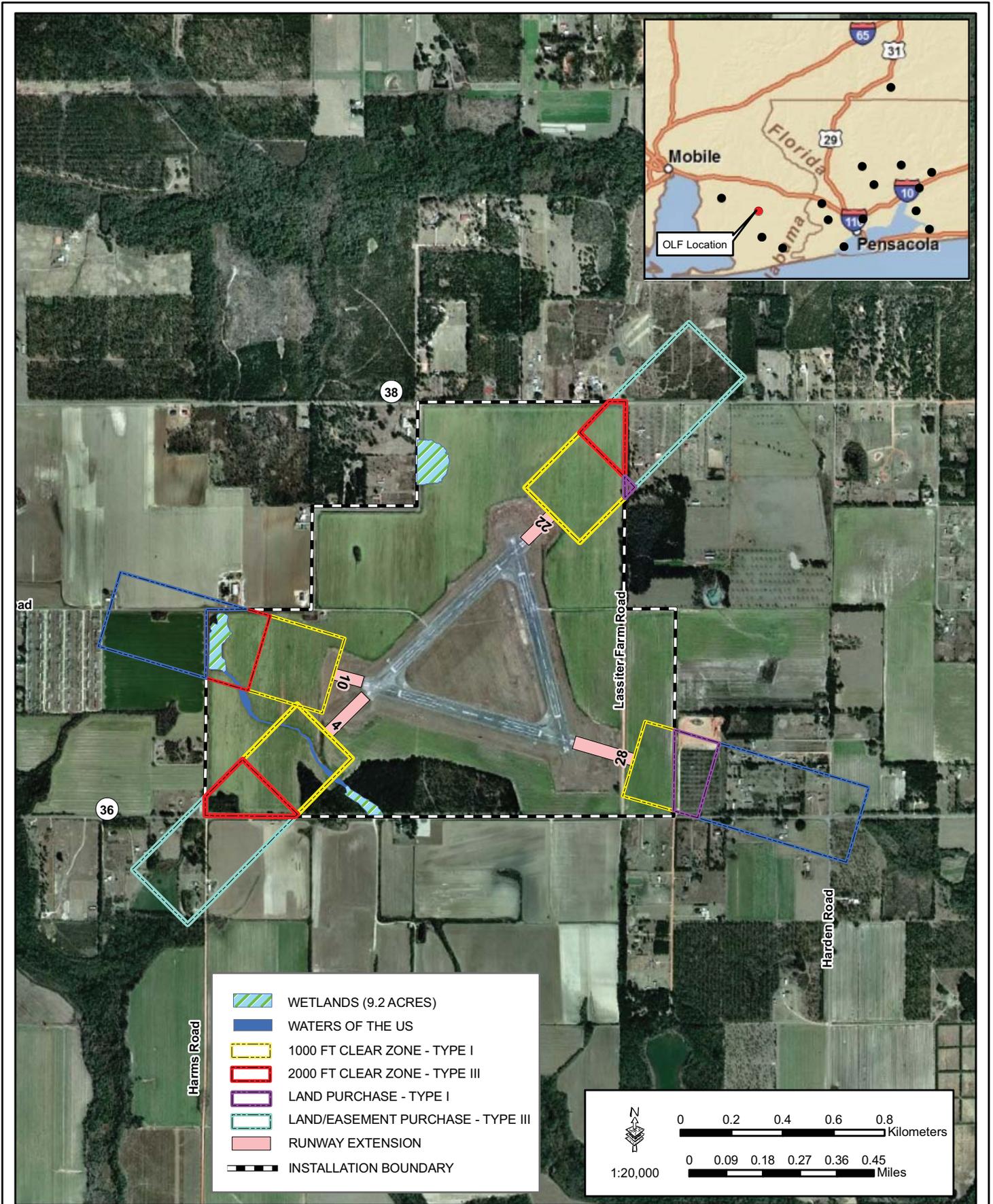


Figure 3-10: Summerdale NOLF Wetlands

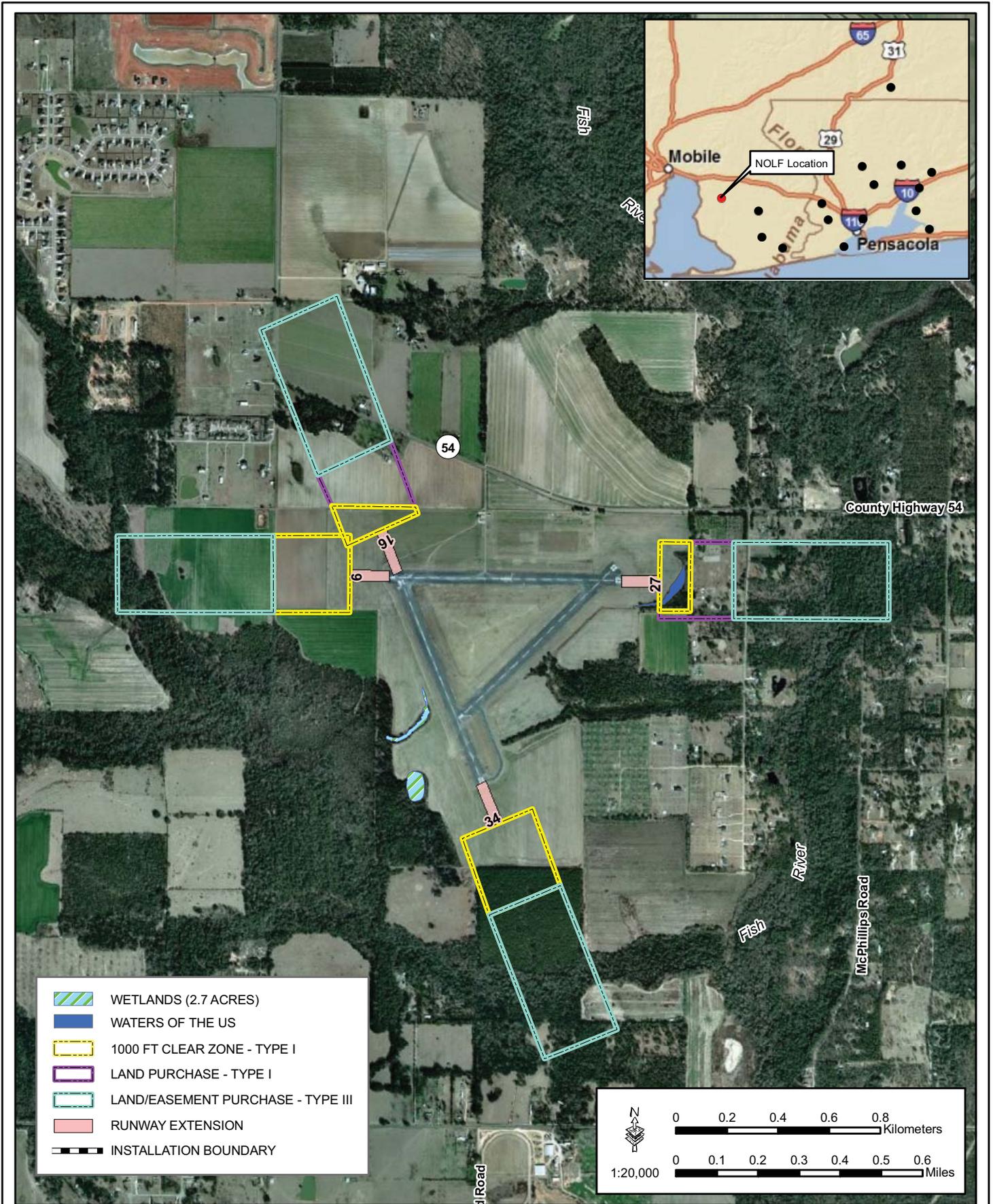


Figure 3-11: Silverhill NOLF Wetlands



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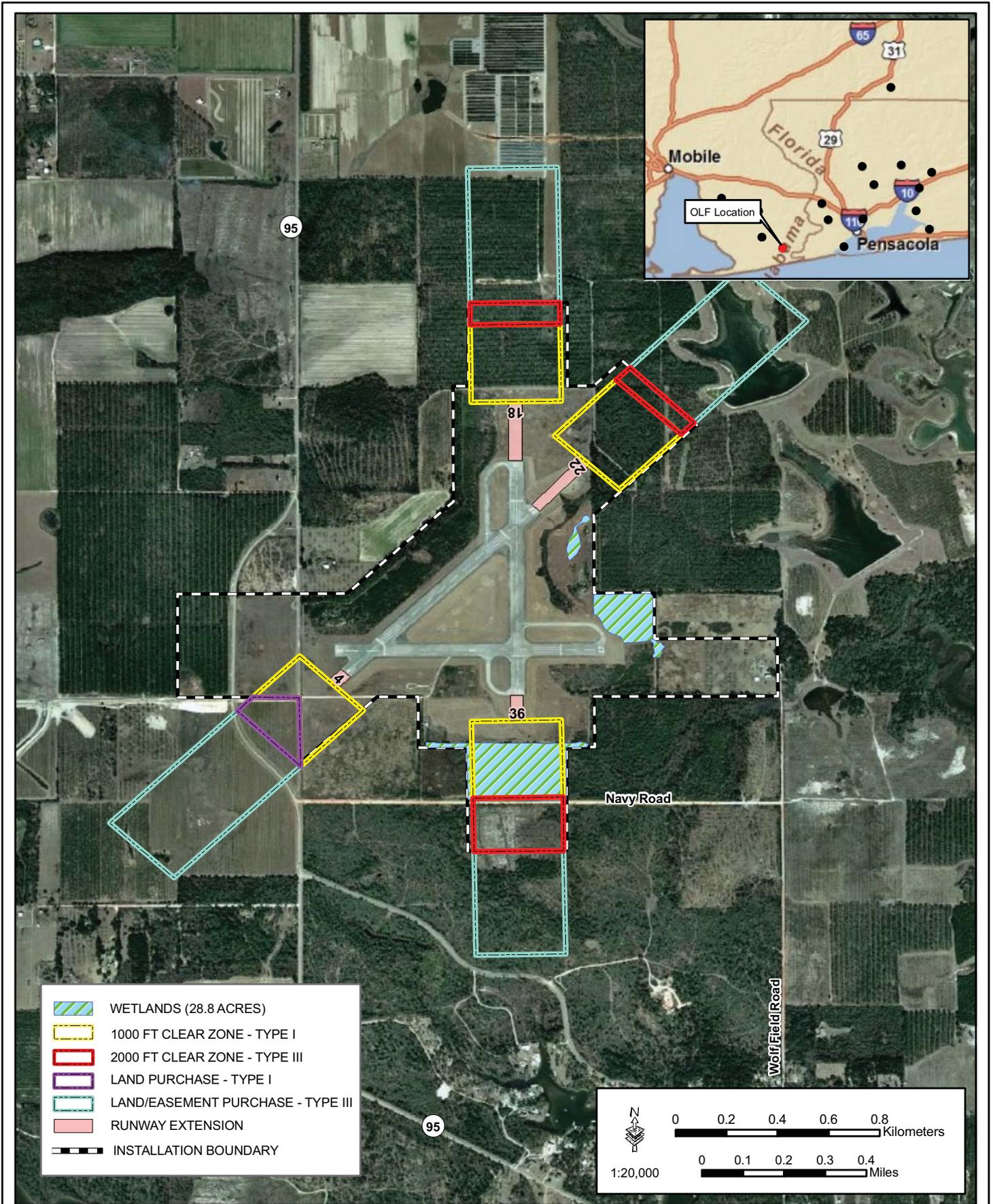


Figure 3-12: Wolf NOLF Wetlands

3.5 BIOLOGICAL RESOURCES

Biological resources on and near the alternative NOLFs considered in this EA were identified during field surveys conducted in October 2008 and January 2010, and from a review of previously published documents and reports. Each of the NOLF active field areas was surveyed by foot, and adjacent potential impact areas were visually surveyed from nearby roads. General vegetation types were noted, as well as individual species, where possible. Surveys were also conducted for Federal and state listed threatened and endangered species that could potentially be present on or near any of the alternative NOLFs considered. Choctaw NOLF was not surveyed because no modifications are proposed at Choctaw NOLF.

3.5.1 Vegetation

Baldwin County is entirely within the Southern Pine Plains and Hills sub-ecoregion as described in the Alabama Comprehensive Wildlife Conservation Strategy (Alabama Department of Conservation and Natural Resources [ADCNR] 2005). The Southern Pine Plains and Hills areas were once fire-adapted longleaf pine-dominated (*Pinus palustris*) communities, before their conversion to agriculture and loblolly pine (*Pinus taeda*) plantations. Vegetation observed during field surveys is described for each alternative NOLF.

3.5.1.1 Barin NOLF

The general habitat types around Barin NOLF are mixed-pine plains with wide-leafed deciduous species along natural drains, loblolly pine plantations, and pastureland or hayfields. Vegetation observed on and around Barin NOLF included: yaupon (*Ilex vomitoria*), water oak (*Quercus nigra*), Chinese tallow (*Triadica sebifera*), loblolly pine, slash pine (*Pinus elliotii*), sweetbay (*Magnolia virginiana*), broomsedge (*Andropogon* sp.), southern dewberry (*Rubus trivialis*), saw greenbrier (*Smilax bona-nox*), privet (*Ligustrum sinense*), waxmyrtle (*Myrica cerifera*), St. Andrew's cross (*Hypericum hypericoides*), bahiagrass (*Paspalum notatum*), Virginia willow (*Itea virginica*), wild grape (*Vitis* sp.), brackenfern (*Pteridium aquilinum*), Christmas fern (*Polystichum acrostichoides*), French mulberry (*Callicarpa americana*), Japanese climbing fern (*Lygodium japonicum*), panicgrass (*Panicum* sp.), dwarf live oak (*Quercus minima*), and poke salad (*Phytolacca americana*).

3.5.1.2 Summerdale NOLF

The general habitat types around Summerdale NOLF are agricultural row crops (cotton and soybeans), pine plains with wide-leaved deciduous species along natural drains, and loblolly pine plantations. Vegetation observed on and around Summerdale NOLF included: bahiagrass, Brazilian vervain (*Verbena braziliensis*), southern dewberry, false garlic (*Allium* sp.), broomsedge, privet, pecan (*Carya illinoensis*), goldenrod (*Solidago* sp.), waxmyrtle, Chinese tallow, Vasey's grass (*Paspalum urvillei*) and dwarf live oak.

3.5.1.3 Silverhill NOLF

The general habitat types around Silverhill NOLF are agricultural row crops, pine plains with wide-leaved deciduous species along natural drains, and loblolly pine plantations. Vegetation observed on and around Silverhill NOLF included: bahiagrass, Bermudagrass (*Cynodon dactylon*), crabgrass (*Digitaria* sp.), slash pine, black cherry (*Prunus serotina*), privet, waxmyrtle and immature oaks (*Quercus* spp.).

3.5.1.4 Wolf NOLF

The general habitat types around Wolf NOLF are agricultural row crops, pastureland or hayfields, pine plains with wide-leaved deciduous species along natural drains, and loblolly pine plantations. The vegetation observed on and around Wolf NOLF included: broomsedge, ironweed (*Vernonia* sp.), Brazilian vervain, skull cap (*Scutellaria* sp.), bahiagrass, eastern baccharis (*Baccharis halimifolia*), golden rod, saw greenbrier (*Smilax bona-nox*), Chinese tallow, leyland cypress (*Cypressus leylandii*), slash pine, yaupon, showy rattlebox (*Crotalaria spectabilis*), persimmon (*Diospyros virginiana*), dwarf live oak, yucca (*Yucca filamentosa*), waxmyrtle, ragweed (*Ambrosia* sp.), yelloweyed grass (*Xyris* sp.) and smutgrass (*Sporobolus* sp.).

3.5.2 Wildlife

The wildlife species typically associated with disturbed or altered landscapes (*i.e.*, agricultural fields, pastureland, urban development) and the forested habitat types of the NOLFs include common game and non-game species as identified in the NASWF Integrated Natural Resources Management Plan (INRMP) (Navy 2006a). Wildlife species observed during field surveys are described for each alternative NOLF.

3.5.2.1 Barin NOLF

Wildlife species or their signs observed on or near Barin NOLF include: crow (*Corvus brachyrhynchos*), mourning dove (*Zenaida macroura*), blue jay (*Cyanocitta cristata*), and white-tailed deer tracks (*Odocoileus virginianus*).

3.5.2.2 Summerdale NOLF

Wildlife species observed on or near Summerdale NOLF include: Eastern meadowlark (*Sturnella magna*), crow, rough-winged swallow (*Stelgidopteryx serripennis*), Northern harrier (*Circus oyanus*), and loggerhead shrike (*Lanius ludovicianus*).

3.5.2.3 Silverhill NOLF

Wildlife species or signs observed on or near Silverhill NOLF include: Eastern meadowlark, turkey vulture (*Cathartes aura*), rough-winged swallow, American kestrel (*Falco sparverius*), and an inactive gopher tortoise burrow.

3.5.2.4 Wolf NOLF

Wildlife species observed on or near Wolf NOLF include: Eastern glass lizard (*Ophisaurus ventralis*), Northern harrier, Northern flicker (*Colaptes auratus*), rough-winged swallow, killdeer (*Charadrius vociferus*), armadillo (*Dasypus novemcinctus*), Eastern meadowlark, and Mississippi kite (*Ictinia mississippiensis*).

3.5.3 Threatened and Endangered Species

3.5.3.1 Federal

The USFWS lists 19 species that potentially occur in Baldwin County as Federal threatened, endangered, or candidate species under the Endangered Species Act (USFWS 2008). Table 3-1 lists all 19 species and a short description of each species' habitat preferences and the potential for that species to occur within or near any of the NOLFs. Of these species, only two species, the gopher tortoise and the eastern indigo snake (*Drymarchon corais couperi*), could potentially occur within the project area; however, there has been no documented sighting of eastern indigo snake in Baldwin County in twenty years. The remaining species were removed from consideration due to the lack of appropriate habitat (*i.e.*, aquatic habitats, fire-managed pine forests).

Table 3-1. Federally Threatened, Endangered and Candidate Species Potentially Occurring in Baldwin County

Scientific Name Common Name	Federal Status	Habitat Description	Potential to Occur On or Near the Project Area
FISH			
<i>Acipenser oxyrinchus desotoi</i> Gulf sturgeon	T	Forages in the Gulf of Mexico and associated estuaries; spawns in coastal rivers.	No – Aquatic habitat does not occur within the project area.
<i>Pseudemys alabamensis</i> Alabama sturgeon	E	Forages in the Gulf of Mexico and associated estuaries; spawns in coastal rivers.	No – Aquatic habitat does not occur within the project area.
AMPHIBIANS AND REPTILES			
<i>Ambystoma cingulatum</i> Flatwoods salamander	T	Pine flatwood communities with wiregrass groundcover and scattered wetlands.	No – No pine flatwood communities present in the project area.
<i>Caretta caretta</i> Loggerhead sea turtle	T	Marine species that uses sandy beaches for nesting.	No – Project area is not located near beaches.
<i>Chelonia mydas mydas</i> Green sea turtle	T	Marine species that uses sandy beaches for nesting.	No – Project area is not located near beaches.
<i>Drymarchon corais couperi</i> Eastern indigo snake	T	Broad range of habitats from scrub and sandhill to wet prairies and swamps.	Yes – Project areas contain suitable habitat; available burrows observed during surveys appeared overgrown and inactive, no sightings in 20 years.
<i>Gopherus polyphemus</i> Gopher tortoise	C	Well drained sandy soils in transitional forest or grassy areas.	Yes – Project areas contain suitable habitat, and individuals were documented at project areas in the past.
<i>Pseudemys alabamensis</i> Alabama red-bellied turtle	E	Fresh to brackish waters of the Mobile River delta.	No – Project areas not located in the Mobile River delta.
<i>Lepidochelys kempi</i> Kemp's Ridley sea turtle	E	Marine species that uses sandy beaches for nesting.	No – Project areas not located near beaches.
BIRDS			
<i>Charadrius melodus</i> Piping plover	T	Forages on open sandy beaches and tidal flats. Winter resident only.	No – Project areas not located near beaches.
<i>Sterna antillarum</i> Least tern	T	Sandy beaches and sand bars in larger streams	No – Project areas not located near beaches or large streams.
<i>Mycteria americana</i> Wood stork	E	Nests in inundated forested wetlands; forages in marshes, swamps, and other shallow freshwater areas.	No – Project areas lack water bodies suitable for nesting and foraging.
<i>Picoides borealis</i> Red-cockaded woodpecker	E	Nests and forages in mature pine forests.	No – There are no mature pine forests in the project areas.
MAMMALS			
<i>Peromyscus polionotus trissyllepsis</i> Perdido Key beach mouse	E	Primary and secondary sand dunes with a moderate cover of grass and forbs.	No – Project areas not located near beaches.

Table 3-1, continued

Scientific Name Common Name	Federal Status	Habitat Description	Potential to Occur On or Near the Project Area
<i>Peromyscus polionotus ammobates</i> Alabama beach mouse	E	Primary and secondary sand dunes with a moderate cover of grass and forbs.	No – Project areas not located near beaches.
<i>Trichechus manatus latirostris</i> West Indian manatee	E	Coastal waters, bays and rivers.	No – Project areas do not include open waters.
INVERTEBRATES			
<i>Pleurobema taitianum</i> Heavy pigtoe mussel	E	Small to medium-sized creeks and rivers with slow to moderate current over sand.	No – Project areas do not include creeks or rivers.
<i>Potamilus inflatus</i> Inflated heelsplitter mussel	T	Small to medium-sized creeks and rivers with slow to moderate current over sand.	No – Project areas do not include creeks or rivers.
PLANTS			
<i>Schwalbea americana</i> American chaffseed	E	Open pine flatwoods and savannahs subject to frequent fires.	No – Project areas do not contain fire-managed habitat.

KEY: E = Endangered; T = Threatened; C = Candidate
Source: USFWS 2008

Although gopher tortoise was previously observed at Barin, Summerdale, Silverhill and Wolf NOLFs, a thorough survey of the existing fields in October 2008, with emphasis on the proposed construction areas for extended runways and Type I Clear Zones, revealed no active gopher tortoise burrows. One inactive burrow was found on Silverhill NOLF. The Eastern indigo snake, a Federal threatened species, has not been observed on any of the NOLFs being considered in this EA; however, the eastern indigo snake does utilize gopher tortoise burrows, and could be present in the area, although that is unlikely.

Previous surveys were conducted on NASWF and all NOLFs for rare plants, gopher tortoise and natural communities in 2006 by Florida Natural Areas Inventory (FNAI) for NAVFAC Southern Division (FNAI 2007a), and gopher tortoise was found at all of the NOLFs being evaluated in this EA.

3.5.3.2 State

A list of State of Alabama species of concern is included in Appendix A. Of the state species listed, the gopher tortoise is the only species likely to occur in the project area, and that species is also a Federal listed Candidate Species. The eastern indigo snake also has the remote potential to occur in the project area.

3.6 AIR QUALITY

Air quality is determined by the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin and the prevailing meteorological conditions. For the air quality analysis, the Region of Influence (ROI) is defined as the Mobile-Pensacola-Panama City-Southern Mississippi Intrastate Air Quality Control Region, within which Baldwin County, Alabama and Escambia and Santa Rosa counties in Florida are located.

3.6.1 Regulatory Setting

The USEPA established National Ambient Air Quality Standards (NAAQS) for specific pollutants. The NAAQS standards are classified as either "primary" or "secondary" standards. The major pollutants of concern, or criteria pollutants, are carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), ozone (O₃), Particulate Matter (PM), and lead (Pb). NAAQS represent the maximum levels of background pollution that are considered safe, with an adequate margin of safety, to protect the public health and welfare. The NAAQS are included in Table 3-2.

Table 3-2. National Ambient Air Quality Standards

POLLUTANT	STANDARD VALUE	STANDARD TYPE
Carbon Monoxide (CO)		
8-hour average	9ppm (10mg/m ³)	P
1-hour average	35ppm (40mg/m ³)	P
Nitrogen Dioxide (NO₂)		
Annual arithmetic mean	0.053ppm (100µg/m ³)	P and S
Ozone (O₃)		
8-hour average*	0.08ppm (157µg/m ³)	P and S
1-hour average*	0.12ppm (235µg/m ³)	P and S
Lead (Pb)		
Quarterly average	1.5µg/m ³	P and S
Particulate<10 micrometers (PM-10)		
Annual arithmetic mean	50µg/m ³	P and S
24-hour average	150µg/m ³	P and S
Particulate<2.5 micrometers (PM-2.5)		
Annual arithmetic mean	15µg/m ³	P and S
24-hour average	65µg/m ³	P and S
Sulfur Dioxide (SO₂)		
Annual average mean	0.03ppm (80µg/m ³)	P
24-hour average	0.14ppm (365µg/m ³)	P
3-hour average	0.50ppm (1300µg/m ³)	S

Legend: P= Primary

S= Secondary

ppm = parts per million, mg/m³ = milligrams per cubic meter of air, µg/m³ = micrograms per cubic meter of air

Source:USEPA 2008a.

* Parenthetical value is an approximate equivalent concentration

Areas that do not meet these NAAQS standards are called non-attainment areas or maintenance areas; areas that meet both primary and secondary standards are known as attainment areas. The Federal Conformity Final Rule (40 CFR Parts 51 and 93) specifies criteria or requirements for conformity determinations for Federal projects. The Federal Conformity Rule was first promulgated in 1993 by the USEPA, following the passage of Amendments to the Clean Air Act (CAA) in 1990. The rule mandates that a conformity analysis must be performed when a Federal action generates air pollutants in a region that has been designated a non-attainment or maintenance area for one or more NAAQS.

3.6.2 Current Air Quality

Table 3-3 presents the Federal air quality attainment status for the NOLFs considered in the Proposed Action and alternatives. Both of the counties where the NOLFs are located are in attainment for Federal NAAQS, and therefore, a Federal Conformity analysis is not required.

Table 3-3. Air Quality Attainment Status for the Counties in the Project Area

Air Field	County	Attainment Status
Barin	Baldwin, AL	In attainment
Summerdale	Baldwin, AL	In attainment
Silverhill	Baldwin, AL	In attainment
Wolf	Baldwin, AL	In attainment
Choctaw	Santa Rosa, FL	In attainment

Source: USEPA 2008b.

Further discussion of the NAAQS, state air quality standards, and methodologies used for emissions calculations are included in Appendix B.

3.7 NOISE

Sound is the result of a source inducing vibration in the air. Sound measurement involves three basic physical characteristics: intensity, frequency, and duration. Intensity is a measure of the acoustic energy of the sound vibrations and is expressed in terms of sound pressure. Sound frequency is the number of times per second the air vibrates or oscillates. Low-frequency sounds include rumbles or roars, while high-frequency sounds include sirens or screeches. Duration is characterized by the time period of the sound pattern. Continuous sounds are those

produced for relatively long periods, while intermittent sounds are those which are produced for short periods (e.g., aircraft takeoffs and landings).

Noise can be defined simply as unwanted sound or, more specifically, as any sound that is undesirable because it interferes with speech and hearing, is intense enough to damage hearing, or is otherwise annoying (USEPA 1976). Measurement of sound pressure is the most common measure of the strength of noise and is discussed in a logarithmic unit known as a decibel (dB). A sound level of 0 dB is the approximate threshold of human hearing and is barely audible. Normal speech has a sound level of approximately 60 dB; levels near 120 dB are identified as uncomfortable.

When measuring environmental noise, the characteristics of human hearing are taken into account by using the “A-weighted” scale, which de-emphasizes the very high and very low frequencies to approximate the human ear’s low sensitivity to these frequencies. This weighting provides a good approximation of the response of the average human ear, and correlates well with the average person’s judgment of the relative loudness of a noise event and is designated as dBA.

Noise levels are computed over a 24-hour period and adjusted for nighttime annoyances to produce the day-night average sound level (DNL). DNL is the community noise metric recommended by the USEPA and has been adopted by most Federal agencies (USEPA 1976). A DNL of 65 dBA is the level most commonly used for noise planning purposes and represents a compromise between community impact and the need for activities like construction. Acceptable DNL noise levels have been established by the U.S. Department of Housing and Urban Development (HUD) for construction activities in residential areas (HUD 1984), and by the Navy for flight operations (Navy 2008c):

Acceptable (not exceeding 65 dBA) – The noise exposure may be of some concern but common building construction will make the indoor environment acceptable and the outdoor environment will be reasonably pleasant for recreation and play (HUD 1984); low to no impact (Navy 2008c).

Normally Unacceptable (above 65 but not greater than 75 dBA) – The noise exposure is significantly more severe; barriers may be necessary between the site and prominent

noise sources to make the outdoor environment acceptable; special building construction may be necessary to ensure that people indoors are sufficiently protected from outdoor noise (HUD 1984); moderate impact, some land use controls needed (Navy 2008c).

Unacceptable (greater than 75 dBA) – The noise exposure at the site is so severe that the construction costs to make the indoor noise environment acceptable may be prohibitive and the outdoor environment would still be unacceptable (HUD 1984); severely impacted (Navy 2008c).

3.7.1 Current Noise Environment

The NOLF runways are located in Baldwin County where the land uses near the airfields are mostly characterized as rural and semi-rural with some rural residential neighborhoods. There are two higher density residential neighborhoods near Barin NOLF and one near Summerdale NOLF. One church is located near Summerdale NOLF and one near Barin NOLF. The land use adjacent to Silverhill NOLF, and particularly Wolf NOLF, tends to be more rural with fewer residential neighborhoods, where the population of residential homes is lower.

The existing dBA DNL noise contours from aircraft traffic at all the NOLF locations are presented in Figures 3-13 through 3-16, developed by SAIC (Navy 2009). The existing noise contours found at Barin, Summerdale, Silverhill and Wolf NOLFs are utilized as a baseline to compare to the noise contours produced by the Proposed Action and alternatives to determine any changes in the noise environment. There are currently no 60 or 65 dBA DNL noise impacts outside the property boundaries for T-34 flight operations at any of the NOLFs being evaluated in this EA. This is in part due to the reduced current operations, particularly at Summerdale, Silverhill and Wolf NOLFs. The noise contours at Barin NOLF best represent the existing noise environment at a full-use NOLF, since Barin is heavily used for landing and touch-and-go activities by T-34 aircraft.

3.8 SOCIOECONOMICS

Socioeconomic resources are defined as the basic attributes associated with the human environment, generally including factors associated with regional demographics and economic activity. Demographics typically are described by the number, distribution, and composition of population and households. Economic activity is depicted by the region's major industries,

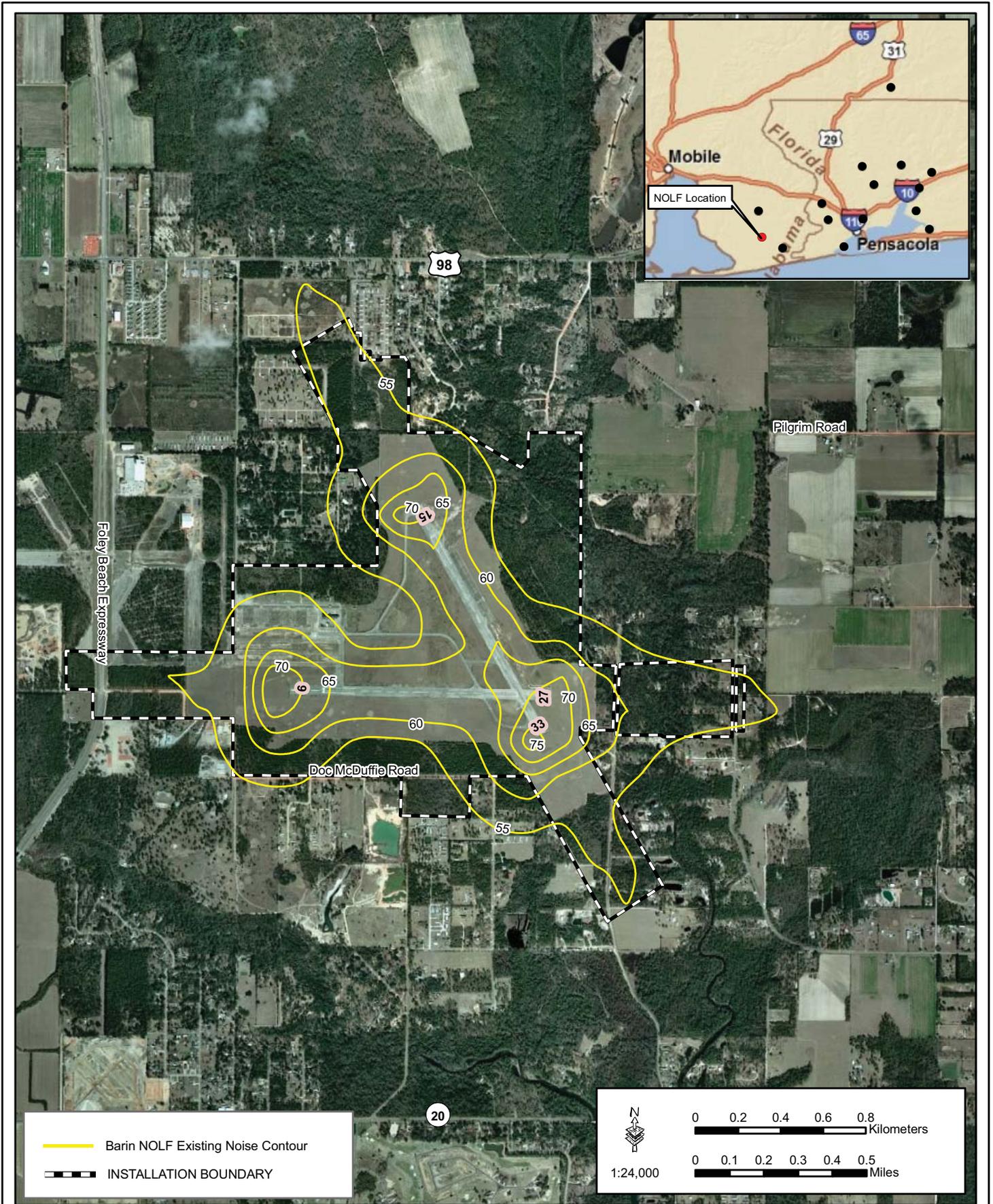


Figure 3-13: Existing T-34 Barin NOLF Noise Contours



June 2010

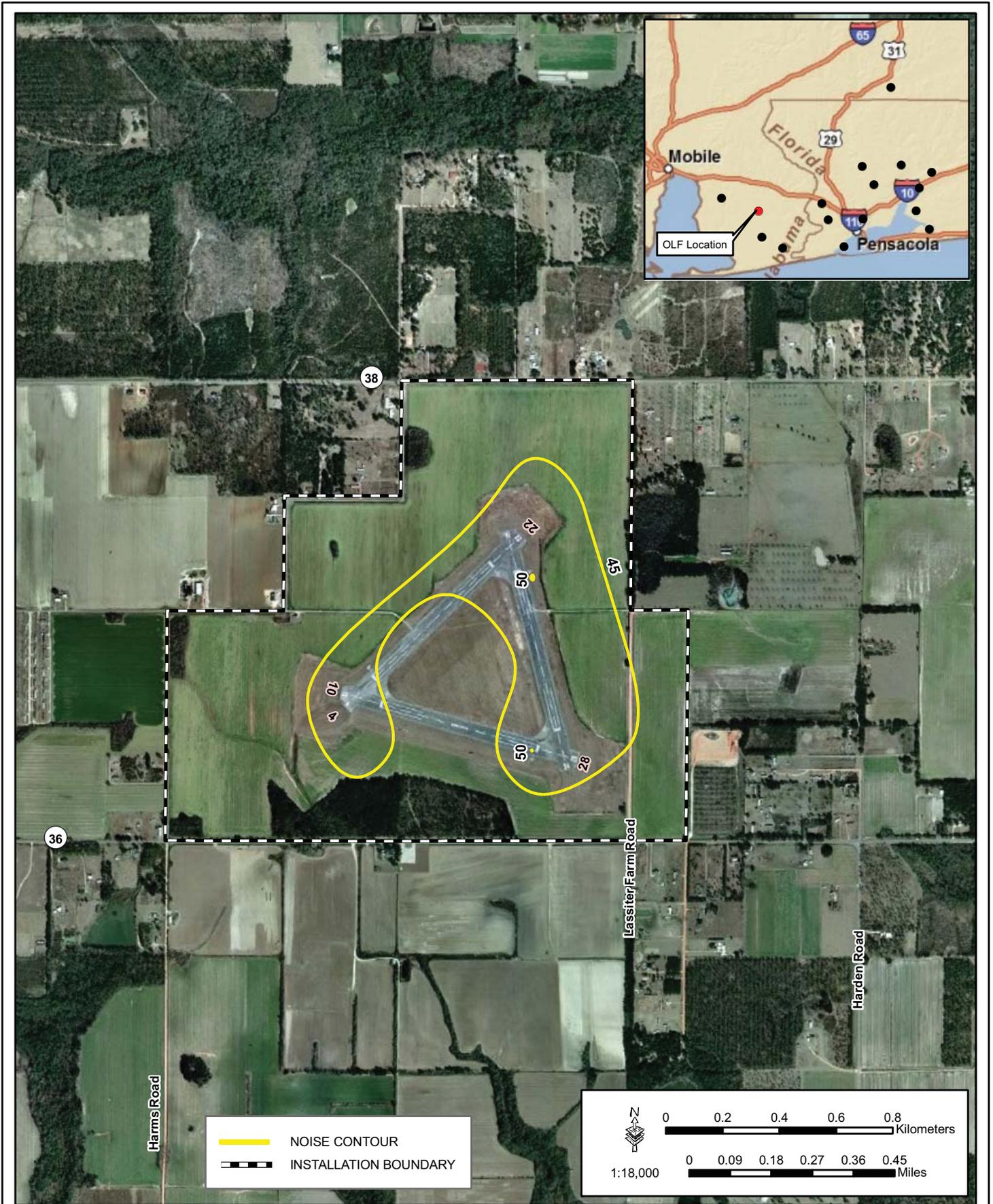


Figure 3-14: Existing T-34 Noise Contours at Summerdale NOLF



June 2010

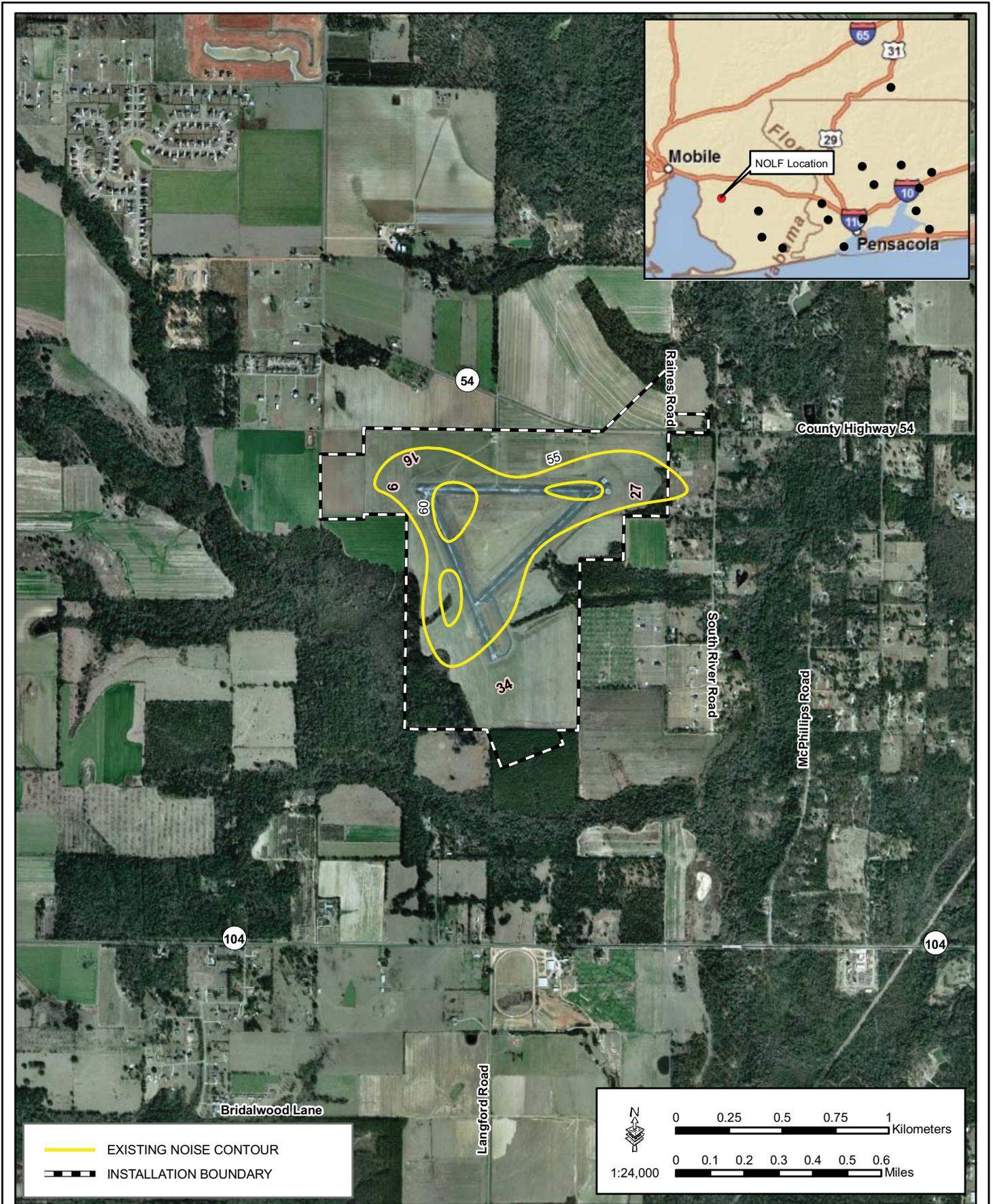


Figure 3-15: Existing T-34 Noise Contours at Silverhill NOLF



June 2010



Figure 3-16: Existing T-34 Noise Contours at Wolf NOLF

employment, and income characteristics. Direct impacts on any of these factors may generate secondary effects on other factors, resulting in a series of potential socioeconomic ramifications within the affected area. The ROI for socioeconomics includes Baldwin County, Alabama and census tracts 107.03, 110, 115 and 116 (Figure 3-17).

Concern that certain disadvantaged communities may bear a disproportionate share of adverse health and environmental effects compared to the general population led to the enactment in 1994 of EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations. This EO directs Federal agencies to address disproportionate environmental and human health effects in minority and low-income communities; and 32 CFR 775, Environmental Impact Analysis Process, addresses the need for consideration of environmental justice issues in compliance with NEPA. EO 12898 applies to Federal agencies that conduct activities that could substantially affect human health or the environment. The evaluation of environmental justice is designed as follows:

- To focus attention of Federal agencies on the human health and environmental conditions in minority communities and low-income communities with the goal of achieving environmental justice.
- To foster non-discrimination in Federal programs that may substantially affect human health or the environment.
- To give minority communities and low-income communities greater opportunities for public participation in, and access to, public information on matters relating to human health and the environment.

EO 13045, Protection of Children from Environmental Health Risks and Safety Risks, was enacted in 1997. EO 13045 directs Federal agencies to identify and assess environmental health and safety risks to children, coordinating research priorities on children's health, and ensuring that their standards take into account special risks to children. Children are more sensitive than the adult population to certain environmental conditions, such as airborne asbestos and lead paint exposures from demolition, safety with regard to equipment, accidents within structures under demolition, and noise. Activities occurring near areas that tend to have a higher concentration of children than the typical residential area during any given time, such as schools, churches, and community childcare facilities, may further intensify potential impacts on children.



Figure 3-17: Census Tracts in the Project Vicinity

3.8.1 Population

Baldwin County has a population of 169,162 persons (U.S. Census Bureau 2006a). The county consists of 2,027 square miles, with a 2006 population density of 83.47 residents per square mile. By comparison, the population of the State of Alabama was 4,599,030, with a population density of 87.74 persons per square mile (Table 3-4, U.S. Census Bureau 2006b). Baldwin County experienced an increase in population base between 2000 and 2006 of 20.5 percent (U.S. Census Bureau 2000a and 2006a).

Barin NOLF lies within the town of Foley, Alabama and under Census Tract 115 (see Figure 3-17). The 2000 total population of Census Tract 115 was 10,153 (Table 3-4; U.S. Census Bureau 2000b). Socioeconomic data for the area surrounding Summerdale NOLF were found in Census Tract 110 (see Figure 3-17). The total population of Census Tract 110 in 2000 was 4,095 (Table 3-4, U.S. Census Bureau 2000c). Wolf NOLF data were found in Census Tract 116 (see Figure 3-17), and the nearest town to Wolf NOLF is Josephine. The total population of Census Tract 116 in 2000 was 10,473 (Table 3-4, U.S. Census Bureau 2000d). Socioeconomic data for the area surrounding Silverhill NOLF were found in Census Tract 107.03 (see Figure 3-17). The total population of Census Tract 107.03 in 2000 was 5,305 (Table 3-4, U.S. Census Bureau 2000e).

Table 3-4. Census Tract Information and Census Year 2000 Population for the Alternative NOLF Sites

NOLF Site	Census Tract	2000 Population
Barin NOLF	115	10,153
Summerdale NOLF	110	4,095
Wolf NOLF	116	10,473
Silverhill NOLF	107.03	5,305
Baldwin County (2006)		169,192
State of Alabama (2006)		4,599,485
United States (2006)		299,398,485

Source: U.S. Census Bureau 2000b, 2000c, 2000d, and 2000e, 2006a, 2006b, and 2006d.

3.8.2 Housing

The total number of housing units in Baldwin County was approximately 96,349 units, of which 59 percent were single family homes, and 41 percent were multi-family homes (Table 3-5, U.S. Census Bureau 2006c). Approximately 74 percent of the housing units were owner-occupied and 27 percent of the housing units were vacant (Table 3-5, U.S. Census Bureau 2006a).

Table 3-5. Housing Information for Census Year 2000 for the Alternative NOLF Sites

Location	Census Tract	Total Houses	Occupied Houses (percent)	Owner-Occupied (percent)
Baldwin County (2006)	N/A	96,349	73	74
Barin NOLF	115	4,673	89	71.5
Summerdale NOLF	110	1,657	91	77
Wolf NOLF	116	5,644	80	87
Silverhill NOLF	107.03	2,008	92	93

Source: U.S. Census Bureau 2000a, 2000b, 2000c, 2000d, 2000e and 2006a.

Housing data at the census tract level were available for the areas surrounding NOLFs Barin, Summerdale, Wolf and Silverhill. There were 4,673 and 1,657 housing units in Census Tract 115 and 110, respectively (Table 3-5, U.S. Census Bureau 2000b and 2000c). There were 2,008 houses in Census Tract 107.03, and 5,644 in Census Tract 116 (Table 3-5, U.S. Census Bureau 2000d and 2000e). In Census Tract 115, 89 percent of the homes were occupied, and 71.5 percent of the occupied homes were owner-occupied. A total of 91 percent of the homes in Census Tract 110 were occupied, 77 percent of which were owner-occupied.

3.8.3 Employment and Income

Baldwin County

The Baldwin County labor force in 2006 was 80,622 (U.S. Census Bureau 2006a). The 2006 unemployment rate of 2.8 percent in Baldwin County was lower than the 3.5 percent unemployment rate for the State of Alabama and the 4.6 percent unemployment rate for the Nation (Economic Research Service/U.S. Department of Agriculture [ERS/USDA] 2008a and 2008b).

In 2005, the median household income in Baldwin County was approximately \$42,804, with 11.4 percent of the population living below poverty (U.S. Census Bureau 2005). The State of Alabama experienced a median household income of \$36,936, with 16.9 percent of the population living below poverty (U.S. Census Bureau 2005). The per capita personal income in Baldwin County was \$32,839, 106 percent of the per capita personal income for the State of Alabama in 2006 (Bureau of Economic Analysis 2006a).

Approximately 17 percent of employed persons in Baldwin County work in the retail sector and 12 percent work in each of the government and government enterprises and construction sectors (Bureau of Economic Analysis 2006b). Remaining employed persons work in various

sectors, including accommodation and food services, health care and social assistance, and manufacturing sectors.

Census Tracts Data

The most recent poverty data at the census tract level were recorded in 1990. Census 1990 data indicate that in Census Tract 110 (Barin), 324 persons were living below the poverty level, which translates into a rate of 14.5 percent of persons in the census tract living in poverty (Table 3-6; ERS/USDA 2008c). In the 1990 Census, 1,461 persons out of a total population of 7,325, were living in poverty in Census Tract 115 (Summerdale); a rate of 20 percent (ERS/USDA 2008c). The poverty rate in Census Tract 110 was slightly higher than the poverty rate for Baldwin County, but approximately 3.8 percent lower than the poverty rate of the State of Alabama. The poverty rate in Census Tract 115 was higher than both the county and state poverty rates reported in the 1990 Census. Poverty data for Census Tract 116 (Wolf) indicate that 6.3 percent of the persons living in the census tract were living below poverty level (ERS/USDA 2008c). In 1990, data for Census Tract 107.03 (Silverhill) indicate that 19.9 percent of the persons in the census tract were living below poverty level (ERS/USDA 2008c). The 1990 Census data indicate poverty rates for Baldwin County and the State of Alabama were 14.3 and 18.3 percent, respectively (ERS/USDA 2008c).

Table 3-6. Poverty Data from the 1990 Census

Location	Census Tract	1990 Poverty
Alabama	N/A	18.3
Baldwin County	N/A	14.3
Barin NOLF	110	14.5
Summerdale NOLF	115	20.0
Wolf NOLF	116	6.3
Silverhill NOLF	107.03	19.9

Source: ERS/USDA 2008b and 2008c

3.8.4 Environmental Justice and Special Risks to Children

Minority persons represent 13.5 percent of Baldwin County population as compared to 29.6 percent of the Alabama population (Table 3-7). As stated above, poverty levels are higher in the State of Alabama than in Baldwin County. The youth population, comprised of children under the age of 18 years, is relatively consistent throughout the region, with no known concentrated areas of concern where youth might experience special health or safety risks. In

Baldwin County, children constitute 22.5 percent of the population compared to 24.3 percent for Alabama overall (Table 3-7).

Of the single-race population (5,305), Census Tract 107.03 has a slightly higher percent minority than Baldwin County (Table 3-7, U.S. Census Bureau 2000e). The percent youth population is higher than in Census Tract 116, which is as much as 11 percent lower than the other locales, and 1 percent higher than in Baldwin County. However, both the percent minority and percent youth in the tract are lower than the percentage for the State of Alabama and the Nation.

Table 3-7. Population of Concern Statistics

	Total Population	Percent Minority	Percent Youth
Census Tract 107.03 (2000)	5,305	14.5*	16.6
Census Tract 110 (2000)	4,095	10.4*	28
Census Tract 115 (2000)	10,153	18.6*	22
Census Tract 116 (2000)	10,473	4.2*	10.1
Baldwin County (2006)	169,192	13.5	22.4
State of Alabama (2006)	4,599,030	29.6	24.3
United States (2006)	299,398,485	26.1	23.6

Source: U.S. Census Bureau 2006a, 2006b, and 2006d and U.S. Census Bureau 2000b and c.

* percent calculated from the single-race population

In Census Tract 110, 98.9 percent of the population (4,052 persons) reported being of a single race in the 2000 Census and 10.4 percent of the single-race population reported being a minority (Table 3-7, U.S. Census Bureau 2000c). Youth in Census Tract 110 comprise 28 percent of the population. Although the percent minority in Census Tract 110 was less than the percent minority in Baldwin County, the State of Alabama, or the U.S., the percent of youth in the tract was as much as 5 percent higher than any of the locales.

Minority persons in Census Tract 115 comprised 18.6 percent of the total single-race population in the 2000 Census (Table 3-7, U.S. Census Bureau 2000b). A total of 22 percent of the 2000 population of Census Tract 115 were youth. The percent minority in Census Tract 115 was approximately 5 percent higher than in Baldwin County; however, the percent of youth in the tract was comparable to the percent of youth in the county, state, and Nation.

Of the single-race population (10,359), Census Tract 116 has a significantly lower percent of minority persons than Baldwin County and other locales (Table 3-7, U.S. Census Bureau 2000d). Percent youth in the tract is approximately 12 percent lower than in Baldwin County, and significantly lower than in the other locales (Table 3-7).

3.9 CULTURAL RESOURCES

The National Historic Preservation Act (NHPA) establishes the Federal government's policy to provide leadership in the preservation of historic properties and to administer Federally owned or controlled historic properties in a spirit of stewardship. NHPA established the Advisory Council on Historic Preservation (ACHP) to advocate full consideration of historic values in Federal decision-making; review Federal programs and policies to promote effectiveness, coordination, and consistency with National preservation policies; and recommend administrative and legislative improvements for protecting our Nation's heritage with due recognition of other National needs and priorities. In addition, the NHPA also established the State Historic Preservation Officers (SHPO) to administer National historic preservation programs on the state level and Tribal Historic Preservation Officers on tribal lands, where appropriate. The NHPA also establishes the National Register of Historic Places (NRHP). The NRHP is the Nation's official list of cultural resources worthy of preservation and protection. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture. The National Park Service administers the NRHP.

Section 106 of the NHPA requires the Navy to identify and assess the effects of its actions on cultural resources. The Navy must consult with appropriate state and local officials, Indian tribes, and members of the public and consider their views and concerns about historic preservation issues when making final project decisions. The historic preservation review process mandated by Section 106 is outlined in regulations issued by the ACHP. Revised regulations, "Protection of Historic Properties" (36 CFR Part 800), became effective January 11, 2001.

Traditional cultural resources are resources associated with cultural practices and beliefs of a living community that are rooted in its history and are important in maintaining the continuing cultural identity of the community. Traditional resources may include archaeological resources,

locations of historic events, sacred areas, sources of raw material used to produce tools and sacred objects, topographic features, traditional hunting or gathering areas, and native plants or animals.

Under Federal regulation, only significant cultural resources warrant consideration with regard to adverse impacts resulting from a Federal undertaking. Significant archaeological, architectural, and traditional resources include those that are formally listed or recommended eligible for inclusion in the NRHP. The significance of Native American and Euroamerican archaeological resources is evaluated according to the criteria for NRHP eligibility as defined in 36 CFR 60.4 and in consultation with the SHPO. As established in the following criteria, the quality of significance is present in districts, sites, buildings, structures, and objects that:

- a) are associated with events that have made a significant contribution to the broad patterns of history, or
- b) are associated with the lives of persons significant in the past, or
- c) embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic value or represent a significant and distinguishable entity whose components may lack individual distinction, or
- d) have yielded, or may be likely to yield information important in prehistory or history.

The coastal area of Alabama and northwest Florida has had a very long and varied cultural past. The Integrated Cultural Resources Management Plan (ICRMP) for NAS Whiting Field (Navy 2006b) provides a comprehensive summary of the current understanding of the cultural past for the region that includes the NOLFs considered in this EA. The Archaeological Overview described in the 2000 ICRMP is hereby incorporated by reference.

3.9.1 Previous Investigations

In support of this EA, a records search was conducted at the Alabama State Site Survey File at the Office of Archaeological Research at the University of Alabama. The records search included all previously reported cultural resources investigations and properties within a 1.5 mile radius of each of the NOLFs considered in the Proposed Action and the action alternatives. A description of the records search results follows each NOLF heading below.

3.9.1.1 Barin NOLF

The records search for Barin NOLF revealed that two previous investigations have been conducted within 1.5 miles of the airfield, one of which resulted in the discovery of archaeological site 1Ba359. One survey was reported in 1997 by Matthew D. Gage of the Office of Archaeological Services with the University of Alabama Museums (Gage 1997). The report summarized an investigation conducted along a corridor proposed for the Perdido Pass Parkway between Baldwin County Road 20 and Woerner Road. The corridor investigated lies along the western margin of Barin NOLF property and a portion of the proposed modifications to the Barin South Runway Type III Clear Zone that crosses the Foley Beach Expressway. Archaeological site 1Ba359 was discovered and reported in the investigation. The site is located south of the proposed action corridor and consists of a sparse and heavily disturbed Archaic and Late Woodland artifact scatter. The site was not recommended eligible for the NRHP by the investigators.

In 2002, Hardlines Design Company (HDC) investigated a 30-acre tract for the proposed Barin Runway Extension Project (HDC 2002). The 30-acre tract is included in a portion of the proposed modifications to the north end of the Barin North Runway Type I and Type III Clear Zones. The investigation found no archaeological sites and recommended no further work was necessary for the proposed tract.

3.9.1.2 Summerdale NOLF

One previous cultural resources investigation was found to have been reported within 1.5 miles of the airfield during the records search. In 1998, Jeffery M. Meyer of the Office of Archaeological Services with the University of Alabama Museums conducted a survey of the proposed hurricane evacuation route along Baldwin County Road 83 passing 0.3 mile from the proposed project site. The investigation revealed no cultural materials and no further work was recommended.

3.9.1.3 Silverhill NOLF

No previous cultural resources investigations or sites were reported within 1.5 miles of the airfield during the records search. One person living just east of the airfield reported a possible Civil War era slave grave site on his property, but that site has never been further investigated.

3.9.1.4 Wolf NOLF

No previous cultural resources investigations or sites were reported within 1.5 miles of the airfield during the records search.

3.9.1.5 Choctaw NOLF

The runways and clear areas at Choctaw NOLF are sufficient for the T-6 operations and will require no modifications. However, the construction of an additional runway would potentially alter previously undisturbed ground, requiring a cultural resources survey. No cultural resources records search for Choctaw NOLF was necessary for the Proposed Action or action alternatives, since no new ground-disturbing activities would occur at Choctaw NOLF.

3.10 TRANSPORTATION

With the exception of Barin NOLF, which is located adjacent to the Foley Beach Expressway, none of the alternative NOLFs being considered in this EA is located near a major transportation route. Most of the roads that may be affected by the alternatives considered in the EA are local rural roads or rural county roads. Some of the affected roads are minimally improved dirt and gravel roads.

3.10.1 Barin NOLF Transportation

The Foley Beach Expressway, a four-lane divided highway, is located west of Barin NOLF, within the proposed Type III Clear Zone proposed for Runway 9-27 (see Figure 1-2). Traffic on this highway is relatively heavy, as it is the main route taken by tourists traveling from Interstate 10 to the beaches in Orange Beach and Gulf Shores.

Doc McDuffie Road is an improved dirt and gravel road crossing the Foley Beach Expressway west of Barin NOLF, and extending around the south end of the field to Coleman Lane. An 856-foot section of Doc McDuffie Road is located within the proposed Type I Clear Zone for Runway 9-27 (see Figure 1-4).

Coleman Lane is a local paved road located east of Barin NOLF, extending from near the middle of the field southward to County Road 20. It is located within the proposed Type III Clear Zone for Runway 15-33 and Runway 9-27. Patterson Lane is located east of Barin NOLF within

the proposed Type III Clear Zone for Runway 9-27. Several small subdivision roads are located within the proposed Type III Clear Zone for Runway 15-33 north of Barin NOLF.

3.10.2 Summerdale NOLF Transportation

County Road 36 is a paved regional two-lane county road located along the south edge of the Summerdale NOLF property. It is located within the proposed Type III Clear Zone for the Proposed Action for Runway 10-28 and Runway 4-22 (see Figure 1-3) and within the potential Type I Clear Zone for Alternatives 4, 7 and 8. County Road 38 is a paved regional two-lane county road located along the north edge of the Summerdale NOLF property. It is located within the proposed Type III Clear Zone for the Proposed Action for Runway 4-22 (see Figure 1-3) and within the potential Type III Clear Zone for Runway 16-34 in alternatives 7 and 8, and within the potential Type I Clear Zone for Alternative 4 (see Figure 2-6).

Harms Road, a dirt road, is located along the west edge of the Summerdale NOLF property, and it would be within the proposed Type III Clear Zone for the Proposed Action for Runway 10-28 and the potential Type III clear Zone for Runway 9-27 in alternatives 8 and 9. Lassiter Farm Road, a dirt road, is located along the east edge of the Summerdale NOLF property, and it would be located within the proposed Type I Clear Zone for Runway 10-28 and Runway 4-22 (see Figure 1-3), as well as the potential Type I Clear Zone for Runway 9-27 in alternatives 8 and 9.

3.10.3 Silverhill NOLF Transportation

County Road 54 is a paved regional two-lane county road located along the north edge of the Silverhill NOLF property, and it would be located within the potential Type III Clear Zone for Alternative 2 and Alternative 4 for Runway 16-34 (Figure 2-4). River Road intersects County Road 54 at the northeast corner of the field, and runs north-south along the east edge of the field. River Road would be located within the potential Type III Clear Zone for alternatives 2, 4 and 9. Raines Road is located east of Silverhill NOLF, and it would be located within the potential Type I Clear Zone for Runway 9-27 for Alternatives 2, 4, 6 and 9 (see Figure 2-4).

3.10.4 Wolf NOLF Transportation

County Road 95 is a paved two-lane regional county road located along the west side of the Wolf NOLF property. It has been diverted around the field in the past. It would be located within the potential Type III Clear Zone for Alternative 5 for Runway 4-22. Navy Road, an

improved dirt and gravel road, intersects County Road 95 south of the field and runs east-west near the south field boundary. Navy Road would be located within the potential Type III Clear Zone for Alternative 5 for Runway 18-36 (see Figure 2-2).

3.11 AIRSPACE AND AIR TRANSPORTATION SAFETY

Airspace clearance for NASWF training operations at the altitudes and locations necessary to meet the training syllabus requirements is essential to meet the project purpose and need. The locations of the NOLFs evaluated in this EA are shown in reference to the current Federal Aviation Administration (FAA) sectional aeronautical chart in Figure 3-18 (FAA 2008). Training operations adjacent to or under restricted airspace for TRSAs, or within designated instrument approach corridors and standard airport traffic patterns, would result in unacceptable accident risks for students and other aviation traffic. Such airspace restrictions would also preclude standard training operations and patterns specified in the NASWF training syllabus.

3.11.1 Barin NOLF Airspace Environment

Barin NOLF is not located within or adjacent to any terminal controlled airspace for any other airport facility. The nearest airport is Foley Municipal Airport, located approximately 4.5 miles to the northwest. Barin NOLF is located within the Class E airspace for Foley Municipal Airport and Jack Edwards Airport in Gulf Shores. A direct flight path to Barin NOLF is available from NASWF without impacting any TRSA for any other major airport in the region.

3.11.2 Summerdale NOLF Airspace Environment

Summerdale NOLF is not located within or adjacent to any terminal controlled airspace for any other airport facility. The nearest airport is Foley Municipal Airport, located approximately 5.8 miles to the southwest. The Class E airspace for Foley Municipal Airport abuts the southwest edge of Summerdale NOLF. A direct flight path to Summerdale NOLF is available from NASWF without impacting any TRSA for any other major airport in the region.

3.11.3 Silverhill NOLF Airspace Environment

Silverhill NOLF is not located within or adjacent to any terminal controlled airspace for any other airport facility. The nearest airport is Fairhope Municipal Airport, located approximately 7.8 miles to the southwest, and the Class E airspace for that airport is adjacent to the south edge of

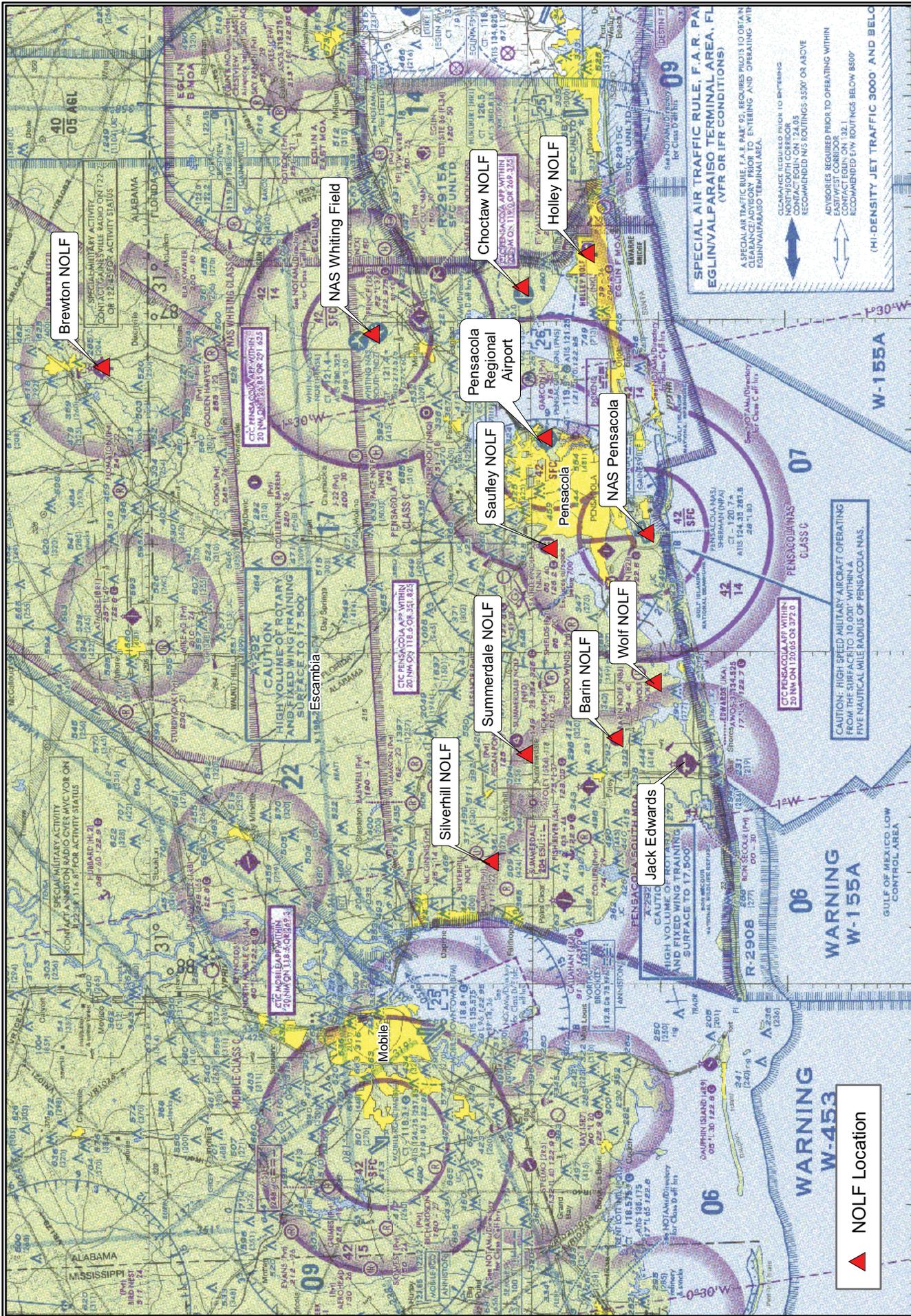


Figure 3-18: Aeronautical Chart for the Project Area

Silverhill NOLF. A direct flight path to Silverhill NOLF is available from NASWF without impacting any TRSA for any other major airport in the region.

3.11.4 Wolf NOLF Airspace Environment

Wolf NOLF is located adjacent to the NAS Pensacola TRSA, with airspace altitude restrictions between 1,400 and 4,200 feet above the ground surface. It is also located adjacent to the Class E airspace for the Jack Edwards Airport at Gulf Shores, Alabama. Initials of 2 to 3 miles for break traffic at Wolf NOLF would be unsafe from the south (NAS Pensacola Instrument Landing System [ILS] Runway 7L corridor), from the east (under Class C Airspace), and from the north (Horak Skydiving Airfield). High key entries would infringe on break traffic inbound to NAS Pensacola. Wolf NOLF is also located 11 miles from NAS Pensacola TACAN and just 10 miles from the NAS Pensacola Runway 7L approach end. A direct flight path to Wolf NOLF from NASWF would require passage through the Pensacola Regional Airport TRSA and the NAS Pensacola TRSA. Wolf NOLF is located approximately 7.5 miles from Jack Edwards Airport, and NASWF traffic would impinge on the ILS approach and takeoff pattern for the east-west runway.

3.11.5 Choctaw NOLF Airspace Environment

Choctaw NOLF is located on Eglin AFB land adjacent to the NASWF TRSA and the Pensacola Regional Airport TRSA with airspace altitude restrictions between 1,400 feet and 4,200 feet above the ground surface. Choctaw NOLF is used by military jet traffic from NAS Pensacola. A direct flight path is available from NASWF without impacting the TRSA for any other major airport in the region. Choctaw NOLF currently provides an overflow for TW-5 operations, and is heavily utilized during Instructor Pilot Under Instruction training flights. The creation of Pensacola Regional Airport Area Navigation (RNAV) Runway 26 approach and lengthening of Runway 26 has caused tremendous congestion in Area 3 around Choctaw NOLF in the last 5 years. NOLF Choctaw is located approximately 2 miles west of Restricted Airspace (R-2915), limiting traffic pattern maneuvers.

3.12 SOLID AND HAZARDOUS MATERIALS AND WASTES

NASWF operates under a Facility Response Plan, a Hazardous Waste Management Plan (HWMP), and a Spill Prevention Control and Countermeasures Plan (SPCCP). NASWF also

carries out reporting responsibilities under the Emergency Planning and Community Right-to-Know Act (42 USC §§ 11001-11050) of 1986.

The purpose of the Facility Response Plan is to provide a contingency plan that establishes policy, responsibilities, and procedures for the control and cleanup of oil and hazardous substance spills within the NASWF jurisdiction. The plan is applicable to the land and water within NASWF property boundaries and under the command authority of the Commanding Officer. The plan applies to oil and hazardous substance spills into air, water, or land, originating from any NASWF department, tenant activity, or other organization or private contractor working on NASWF property.

The HWMP for NASWF assigns responsibility and offers guidance on industrial waste management procedures to ensure conformance with Federal, state, or U.S. Navy regulations and policies. The HWMP is intended for use by all personnel at NASWF that are involved in the generation and management of waste. All NASWF departments, tenant commands, and contract administrators assign responsibility for compliance coordination of the HWMP to a Point Source Coordinator and an Assistant, who receive guidance in use of the plan from the NASWF Environmental Officer.

The SPCCP provides compliance with Federal and state regulations controlling the prevention and cleanup of spills during transfer of oils and fuel from storage facilities to vehicles and aircraft (Navy 2006). No hazardous substances or fuel are stored or used at any of the NASWF NOLFs as a result of routine operations, with the exception of diesel fuel stored at Choctaw NOLF for operation of the emergency generator. A Pollution Prevention (P2) Plan is also in place at NASWF to comply with the requirements of the Pollution Prevention Act (PPA) of 1998, Executive Order 12856 and OPNAVINST 5090.1C to reduce the generation of hazardous waste at the base.

A Storm Water Pollution Prevention Plan (SWPPP) is also in place at NASWF, but it does not apply to the NOLFs, and storm water issues at the NOLFs are handled on an as-needed basis.

An Environmental Baseline Survey (EBS) assessment was completed for Barin NOLF and several adjacent parcels of private property in anticipation of property acquisition for expansion of the field to the east of Runway 27. The EBS resulted in a limited Phase II EBS due to

discovery of drums on several of the parcels (Navy 2004a). A Finding of Suitability to Acquire was issued as a result of the EBS (Navy 2004b), and the parcels investigated were purchased by the Navy and included within the current property boundaries for Barin NOLF.

SECTION 4.0
ENVIRONMENTAL CONSEQUENCES



4.0 ENVIRONMENTAL CONSEQUENCES

This section analyzes the potential impacts, beneficial and adverse, that may result from the implementation of the action alternatives. The potential impacts are described for each alternative by resource category. The discussions of impacts by resource are provided in the same sequential order as Chapter 3.

Impacts on the human and natural environment can be characterized as beneficial or adverse, and can be direct or indirect based upon the result of the action. Direct impacts are those effects that are caused by the action and occur at the same time and place (40 CFR § 1508.8[a]). Indirect impacts are those effects that are caused by the action and are later in time or further removed in distance, but are still reasonably foreseeable (40 CFR § 1508.8[b]). The effects can be temporary or permanent. For purposes of this EA, temporary effects are defined as those that would last for the duration of the construction period; short-term impacts would last for up to 3 years. Permanent impacts indicate an irretrievable loss or alteration, and are also defined as long-term impacts, which are those impacts that would continue to affect resources for up to 10 years or more after construction.

Impacts can vary in magnitude from a slight change to a total change in the environment. The impact analysis presented in this EA is based upon existing regulatory standards, scientific and environmental knowledge, and best professional opinions. The impacts on each resource are described as significant, moderate, minor (minimal), insignificant, or no impact. Significant impacts are those effects that would result in substantial changes to the environment (as defined by 40 CFR § 1508.27). Moderate impacts are effects that would not significantly improve or degrade current conditions. Minor impacts are effects that would slightly improve or degrade current conditions. All impacts described are adverse unless otherwise noted. Additionally, a quantitative impact analysis was used to describe potential impacts when data were available for the given resource (e.g., vegetation, civilian structures).

The analysis of impacts for the Proposed Action and alternatives assumes a complete build-out and renovation of all runways and clear zones necessary to support the JPATS training program. The analysis also takes into consideration any necessary road realignments and structure removal to accomplish this mission.

4.1 LAND USE

4.1.1 Alternative 1: Proposed Action

Under the Proposed Action, a total of approximately 202 acres of private property would be acquired through purchase of land or development rights around Barin NOLF and Summerdale NOLF, and would be converted from developed land use (*i.e.*, residential or farm-related structures and agricultural production) to military use. The purchased area would be restricted from use involving structures or agricultural development involving trees with heights above the calculated runway approach and departure altitudes. No conflicts with existing county zoning designations would occur, and the change in land use for the acquired properties would not significantly affect adjacent land use in the area due to the extensive current similar land use adjacent to the NOLF.

The relocation of Doc McDuffie Road at Barin NOLF would require the additional acquisition of approximately 1.2 acres of private land, which would be converted from vacant private use to public road ROW.

The AICUZ footprint developed for the Proposed Action and all alternatives was developed based on the overlay and expansion, as necessary, of the clear zones and APZs for each NOLF. The footprints reflect APZs only, and do not reflect any noise contours for aircraft noise impacts. The proposed APZ footprint for Barin NOLF would be expanded as shown in Figure 4-1 due to the extension of runways to a length of 5,000 feet. The APZ footprint for Summerdale would be as shown in Figure 4-2. Following removal of residences and structures from the Type I and Type III Clear Zones, there would remain 163 residences and other structures within the Summerdale APZ footprint, particularly the APZ I and APZ II, that would exceed the density recommendations as written in the UFC and Navy regulations (OPNAVINST 11010.36C, Navy 2008c). Within the Barin APZ footprint, particularly the APZ I and APZ II, there would be 139 residences and other structures that would exceed the density recommendations as written in the UFC and Navy regulations. There would be no sites of special concern (churches, schools, daycare facilities or nursing homes) located within any proposed APZ or the AICUZ at Summerdale NOLF, and one church located within a proposed APZ II for Barin NOLF; however, the church is currently located within the existing APZ footprint, so no significant impacts are anticipated. Most of the residences within the proposed APZ

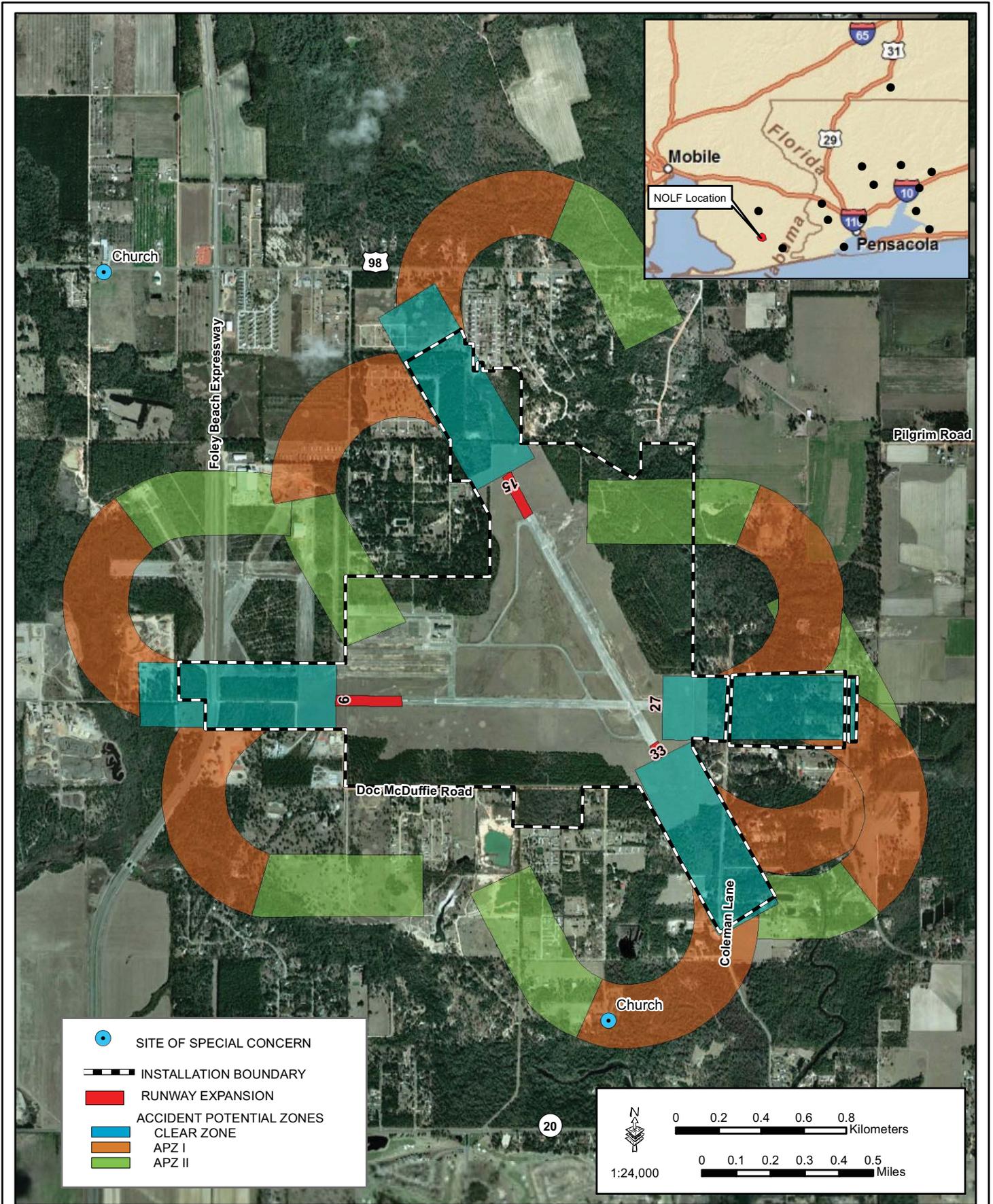


Figure 4-1: Barin NOLF Proposed Action AICUZ

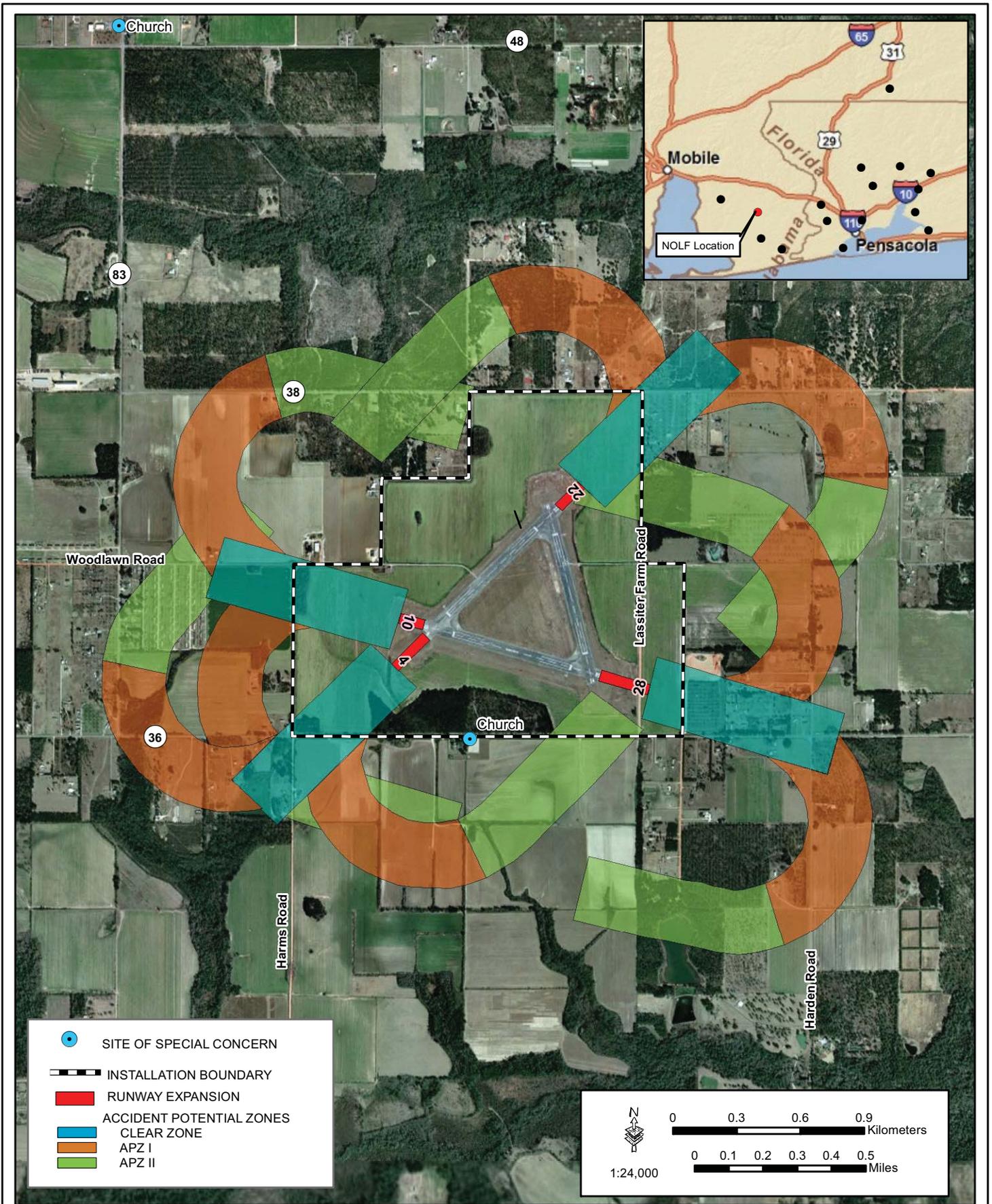


Figure 4-2: Summerdale NOLF Proposed Action AICUZ

footprint were previously included in the APZ for T-34 operations at the fields. At Barin NOLF, the number of residential structures within the proposed APZ footprint would be reduced by 12, and at Summerdale, the number would be reduced by 73.

4.1.2 Alternative 2: Barin NOLF and Silverhill NOLF

Under Alternative 2, a total of approximately 222 acres of private property would be acquired through purchase of land or development rights, and would be converted from civilian use to military use. The purchased area would be restricted from use involving structures or agricultural development involving trees with heights above the calculated runway approach and departure altitudes. No conflicts with existing county zoning designations would occur, and the change in land use for the acquired properties would not significantly affect adjacent land use in the area due to the current extent of land use adjacent to the NOLFs.

The APZ footprint for Barin NOLF would be the same as the Proposed Action (see Figure 4-1). The expanded APZ footprint for Silverhill NOLF would be as shown in Figure 4-3. Following removal of residences and structures from the Type I and Type III Clear Zones, there would remain 66 residences and other structures within the Silverhill APZ footprint, particularly the APZ I and APZ II, that would exceed the density recommendations as written in the UFC and Navy regulations. There would be no sites of special concern located within the proposed APZ footprint for Silverhill NOLF, so no significant impacts are anticipated. Most of the residences within the proposed APZ footprint were previously included in the APZ for T-34 operations at the fields, and the number of residences within the Silverhill APZ footprint would be reduced by 46.

4.1.3 Alternative 3: Barin NOLF and Choctaw NOLF

Under Alternative 3, no private property would be acquired through purchase of land or development rights around Barin NOLF, because all land required for dual operations and clear zones at the field is owned by the Navy. No conflicts with existing county zoning designations would occur, and no change in land use would occur at either Barin NOLF or Choctaw NOLF.

The APZ footprint for Barin and Choctaw NOLFs would not change, since no runway extensions are proposed for Alternative 3.

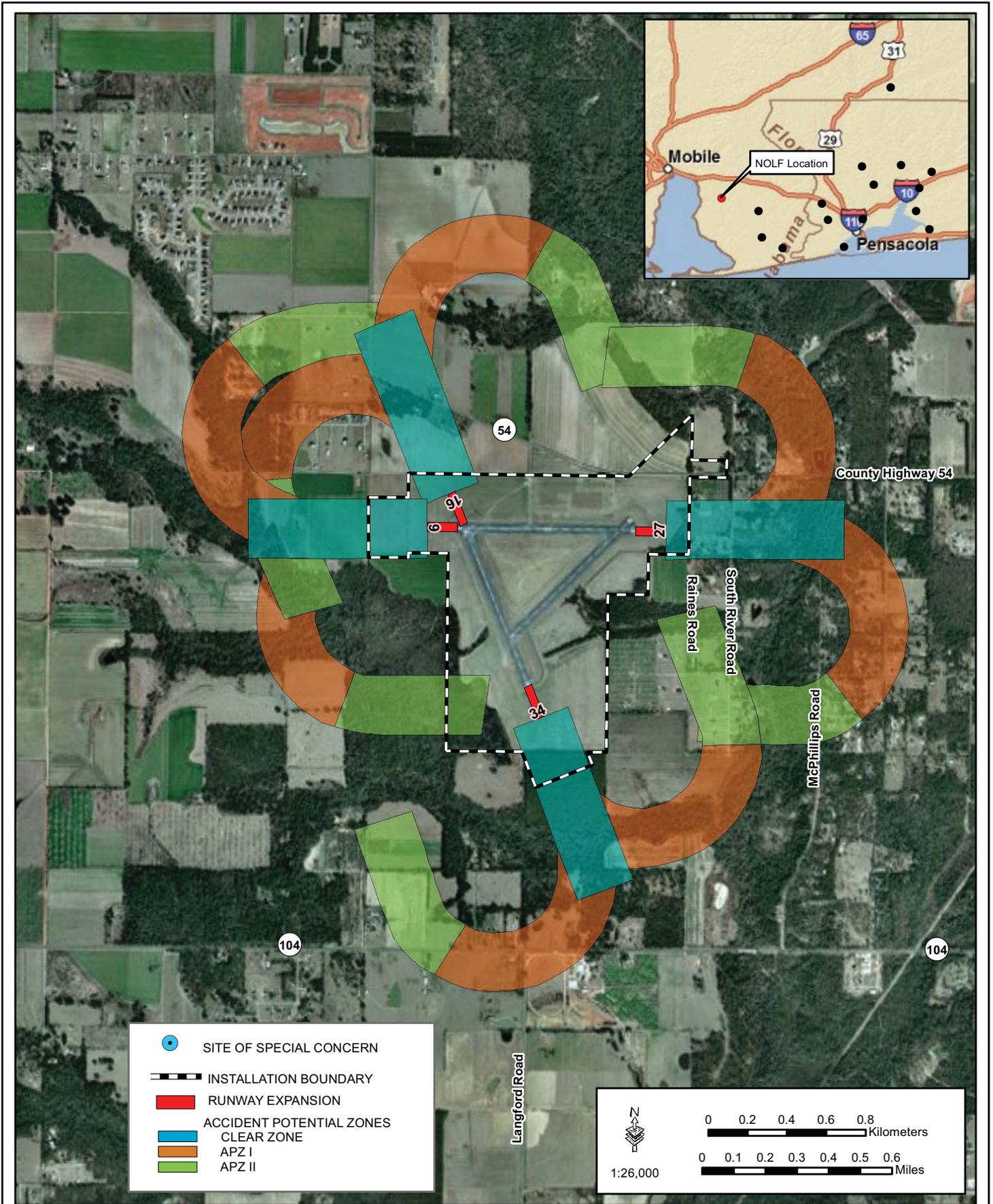


Figure 4-3: Alternative 2 Silverhill NOLF AICUZ



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4.1.4 Alternative 4: Silverhill NOLF and Summerdale NOLF

Under Alternative 4, a total of approximately 414 acres of private property would be acquired through purchase of land or development rights, and would be converted to military use. The purchased area would be restricted from use involving structures or agricultural development involving trees with heights above the calculated runway approach and departure altitudes. No conflicts with existing county zoning designations would occur, and the change in land use for the acquired properties would not significantly affect adjacent land use in the area due to the current extent of land use adjacent to the NOLFs. Approximately 27 acres of additional private land would be acquired for relocation of County Road 36 and County Road 38, and would be converted from agricultural production and residential use to public road ROW.

The APZ footprint for Silverhill NOLF would be the same as for Alternative 2 (see Figure 4-3). The expanded APZ footprint for Summerdale NOLF would be as shown in Figure 4-4. Following removal of residences and structures from the Type I and Type III Clear Zones, there would remain 46 residences and other structures within the Summerdale APZ footprint, particularly the APZ I and APZ II, that would exceed the density recommendations as written in the UFC and Navy regulations. There would be no sites of special concern located within the proposed APZ footprint at Silverhill NOLF or Summerdale NOLF, so no significant impacts are anticipated. Most of the residences within the proposed APZ footprint were previously included in the APZ for T-34 operations at the fields.

4.1.5 Alternative 5: Barin NOLF and Wolf NOLF

Under Alternative 5, a total of approximately 205 acres of private property would be acquired through purchase of land or development rights, and would be converted to military use. The purchased area would be restricted from use involving structures or agricultural development involving trees with heights above the calculated runway approach and departure altitudes. No conflicts with existing county zoning designations would occur, and the change in land use for the acquired properties would not significantly affect adjacent land use in the area due to the current extent of land use adjacent to the NOLFs.

The APZ footprint for Barin NOLF would be the same as the Proposed Action (see Figure 4-1). The expanded APZ footprint for Wolf NOLF would be as shown in Figure 4-5. Following removal of residences and structures from the Type I and Type III Clear Zones, there would remain four residences and other structures within the Wolf APZ, particularly the APZ I and

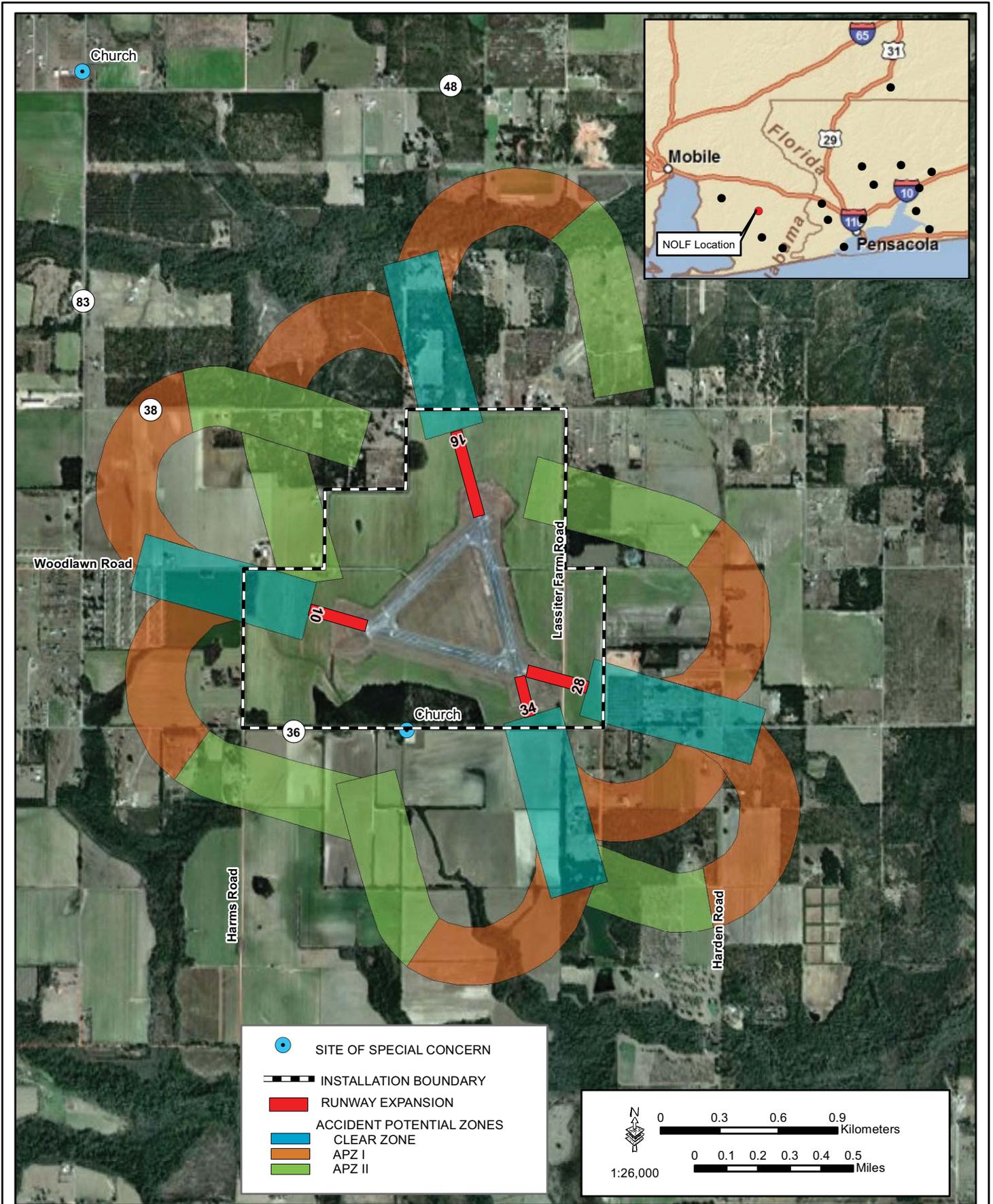


Figure 4-4: Alternative 4 Summerdale NOLF AICUZ

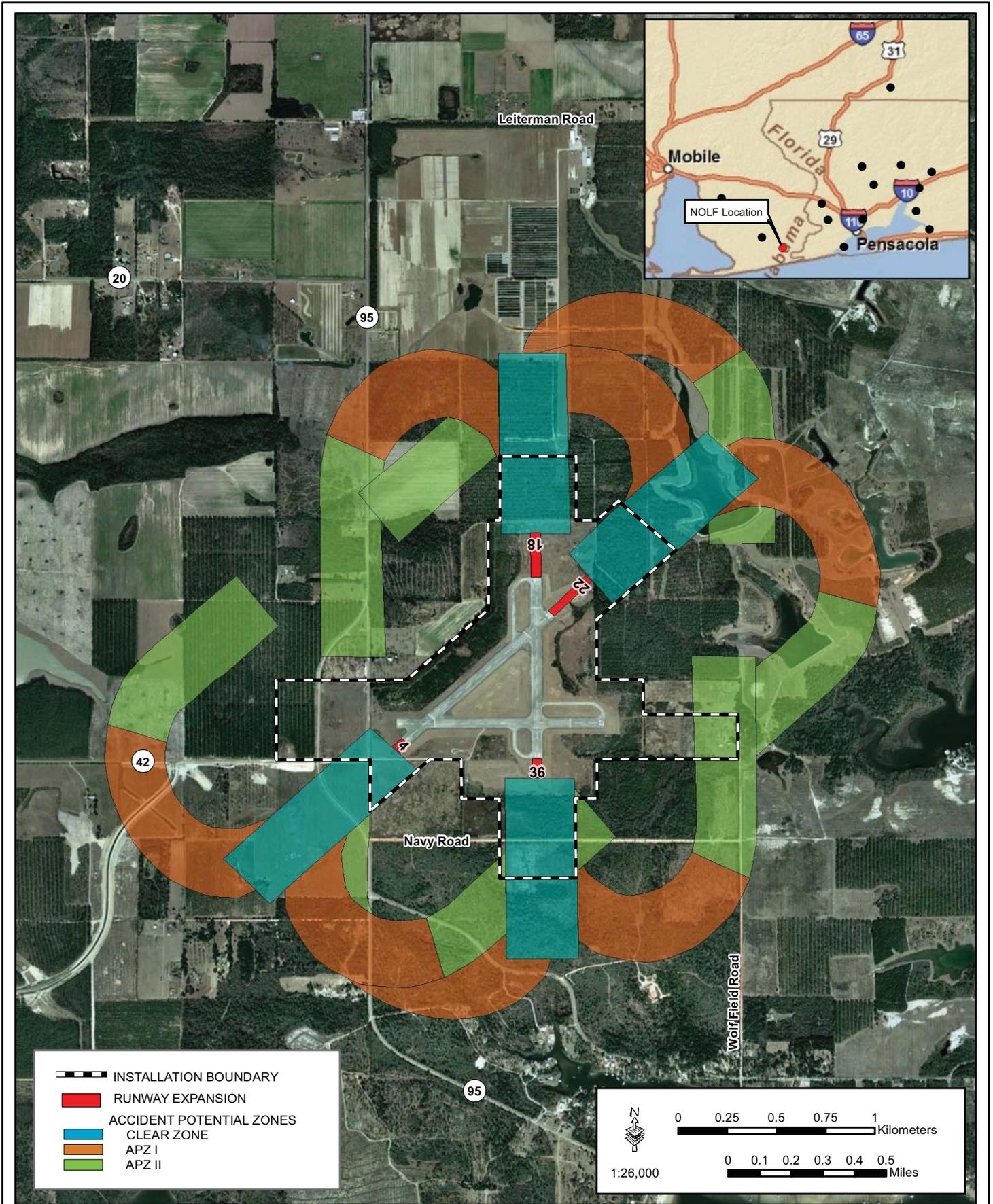


Figure 4-5: Alternative 5 Wolf NOLF AICUZ

APZII. There would be no sites of special concern located within the proposed APZ footprint at Wolf NOLF, so no significant impacts are anticipated. The residences within the proposed Wolf APZ footprint were previously included in the APZ for T-34 operations at the fields, and the number would be reduced by eight.

The number of structures and residences within the proposed APZ footprint for Wolf NOLF would be within the recommendations as written in the UFC and Navy regulations.

4.1.6 Alternative 6: Barin NOLF and Single Runways at Summerdale and Silverhill NOLFs

Under Alternative 6, a total of approximately 219 acres of private property would be acquired through purchase of land or development rights, and would be converted to military use. The purchased area would be restricted from use involving structures or agricultural development involving trees with heights above the calculated runway approach and departure altitudes. No conflicts with existing county zoning designations would occur, and the change in land use for the acquired properties would not significantly affect adjacent land use in the area due to the current extent of land use adjacent to the NOLFs.

The APZ footprint for Barin NOLF would be the same as the Proposed Action (see Figure 4-1). The expanded APZ footprint for Runway 10-28 at Summerdale NOLF would be as shown in Figure 4-2. The APZ footprint for Runway 16-34 at Silverhill NOLF would be as shown in Figure 4-3. Following removal of residences and structures from the Type I and Type III Clear Zones, there would remain 32 residences and other structures within the Summerdale APZ footprint, particularly the APZ I and APZ II, that would exceed the density recommendations as written in the UFC and Navy regulations. Within the Silverhill APZ footprint, particularly the APZ I and APZ II, there would be 48 residences and other structures that would exceed the density recommendations as written in the UFC and Navy regulations. The number of residences within the APZ footprint at Summerdale NOLF would be reduced by 104, and at Silverhill by 64. There would be no sites of special concern located within the proposed APZ footprint at Summerdale NOLF or Silverhill NOLF, so no significant impacts are anticipated. Most of the residences within the proposed APZ footprint were previously included in the APZ for T-34 operations at the fields.

4.1.7 Alternative 7: Barin NOLF and Existing Runways at Summerdale NOLF (16-34 and 10-28)

Under Alternative 7, a total of approximately 232 acres of private property would be acquired through purchase of land or development rights around Barin NOLF and Summerdale NOLF, and would be converted from developed land use (*i.e.*, residential or farm-related structures and agricultural production) to military use. The purchased area would be restricted from use involving structures or agricultural development involving trees with heights above the calculated runway approach and departure altitudes. No conflicts with existing county zoning designations would occur, and the change in land use for the acquired properties would not significantly affect adjacent land use in the area due to the current extent of land use adjacent to the NOLFs. Approximately 14 acres of private land would be acquired for relocation of County Road 36, and would be converted from agricultural production and residential use to public road ROW. Total acreage acquired for both NOLFs would be 232 acres.

The APZ footprint for Barin NOLF would be the same as the Proposed Action (see Figure 4-1) and the impacts would be the same. The proposed APZ footprint for Runways 10-28 and 16-34 at Summerdale NOLF would be as shown in Figure 4-6. Following removal of residences and structures from the Type I and Type III Clear Zones, there would remain 42 residences and other structures within the Summerdale APZ footprint, particularly the APZ I and APZ II, that would exceed the density recommendations as written in the UFC and Navy regulations. There would be no sites of special concern located within the proposed APZ footprint at Summerdale NOLF, so no significant impacts are anticipated. Most of the residences within the proposed APZ footprint were previously included in the APZ for T-34 operations at the fields, and the number would be reduced by 108.

4.1.8 Alternative 8: Barin NOLF and Summerdale NOLF (Runway 16-34 and New Runway 9-27)

Under Alternative 8, a total of approximately 238 acres of private property would be acquired through purchase of land or development rights around Barin NOLF and Summerdale NOLF, and would be converted from developed land use (*i.e.*, residential or farm-related structures and agricultural production) to military use. The purchased area would be restricted from use involving structures or agricultural development involving trees with heights above the calculated runway approach and departure altitudes. No conflicts with existing county zoning designations would occur, and the change in land use for the acquired properties would not

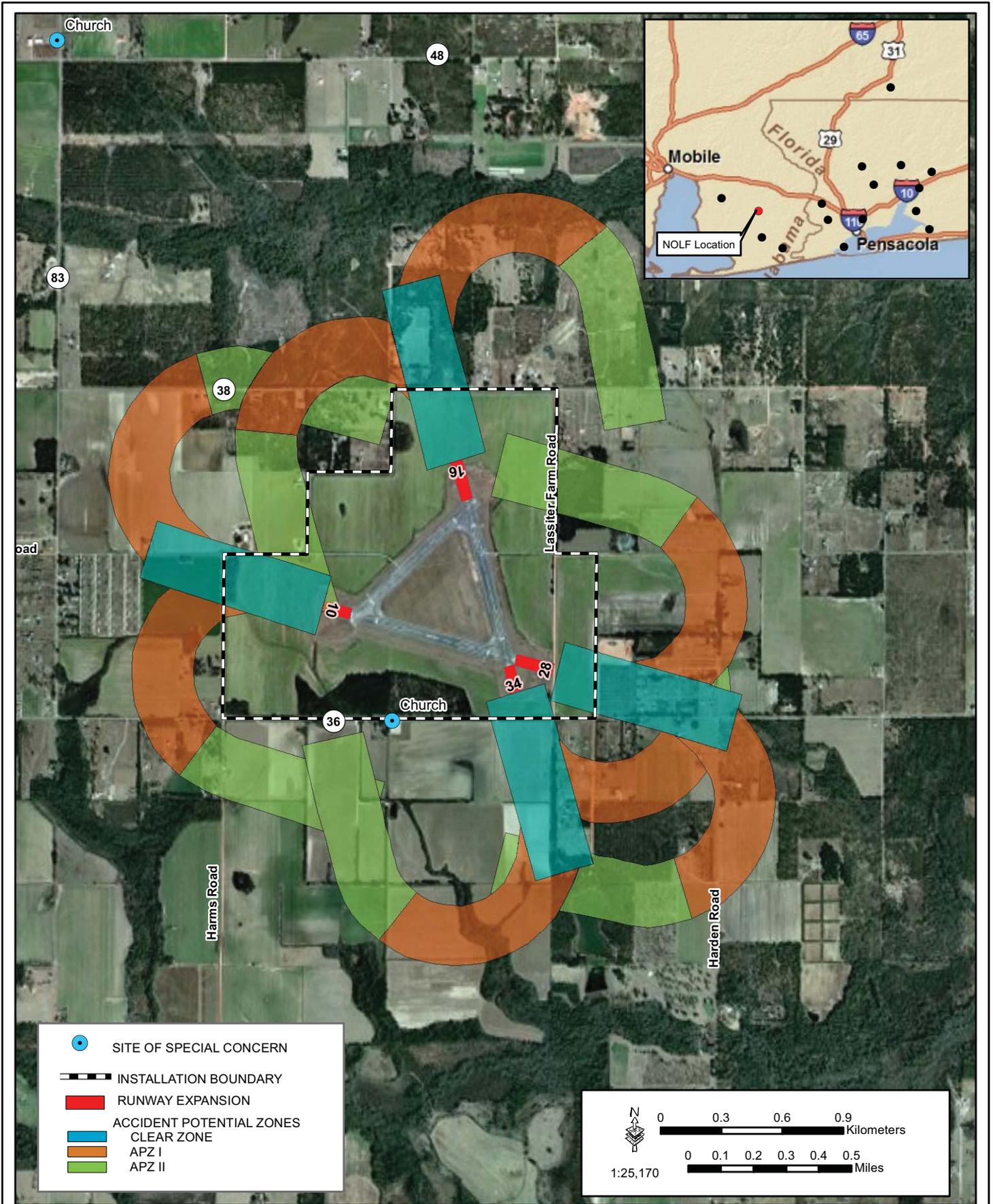


Figure 4-6: Alternative 7 Summerdale NOLF AICUZ



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significantly affect adjacent land use in the area due to the current extent of land use adjacent to the NOLFs.

Relocation of County Road 36 would require the acquisition of approximately 14 acres of private land for the relocated road and ROW. The acquired land would be converted from agricultural production and private residence use to public road ROW. The relocation of Doc McDuffie Road would require the acquisition of approximately 1.2 acres of private land, which would be converted from vacant private use to public road ROW. Road ROW acreage is included in the 238-acre total.

The proposed APZ footprint for Barin NOLF would be expanded as shown in Figure 4-1 due to the extension of runways to 5,000 feet, and the impacts would be the same. The APZ footprint for Summerdale would be as shown in Figure 4-7. Following removal of residences and structures from the Type I and Type III Clear Zones, there would remain 51 residences and other structures within the Summerdale APZ footprint, particularly the APZ I and APZ II, that would exceed the density recommendations as written in the UFC and Navy regulations. There would be no sites of special concern located within any proposed APZ footprint at Summerdale NOLF. Most of the residences within the proposed APZ footprint were previously included in the APZ for T-34 operations at the fields. At Summerdale NOLF, the number would be reduced by 99.

4.1.9 Alternative 9: Barin NOLF, New Runway 9-27 at Summerdale NOLF and Existing Runway 16-24 at Silverhill NOLF

Under Alternative 9, a total of approximately 225 acres of private property would be acquired through purchase of land or development rights, and would be converted to military use. The purchased area would be restricted from use involving structures or agricultural development involving trees with heights above the calculated runway approach and departure altitudes. No conflicts with existing county zoning designations would occur, and the change in land use for the acquired properties would not significantly affect adjacent land use in the area due to the current extent of land use adjacent to the NOLFs.

The APZ footprint for Barin NOLF would be the same as the Proposed Action (see Figure 4-1). The APZ footprint for Runway 16-34 at Silverhill NOLF would be as shown in Figure 4-3. The APZ footprint for the new 9-27 Runway at Summerdale would be as shown in Figure 4-7.

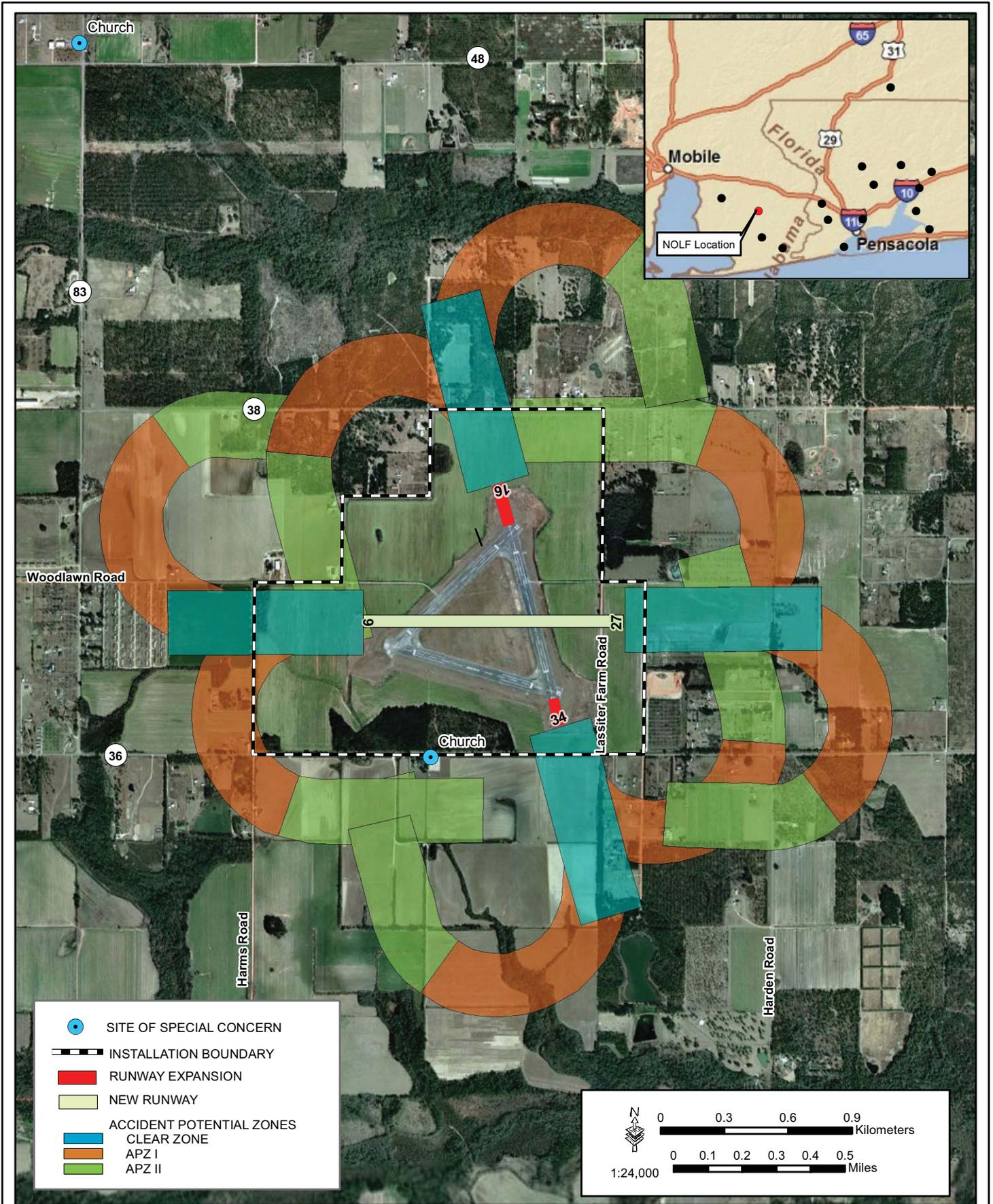


Figure 4-7: Summerdale NOLF Alternative 8 AICUZ

Following removal of residences and structures from the Type I and Type III Clear Zones, there would remain 42 residences and other structures within the Summerdale APZ footprint, particularly the APZ I and APZ II, that would exceed the density recommendations as written in the UFC and Navy regulations. Residences within the Silverhill APZ footprint would be the same as for Alternative 6. There would be no sites of special concern located within the proposed APZ footprint at Silverhill NOLF or Summerdale NOLF, so no significant impacts are anticipated. Most of the residences within the proposed APZ footprint were previously included in the APZ for T-34 operations at the fields.

4.1.10 No Action Alternative

There would be no change of land use for any of the NOLFs used by NASWF with the implementation of the No Action Alternative. The density of residences within the AICUZ footprint at Barin, Summerdale and Silverhill NOLFs currently exceeds the density recommendations as written in the UFC and Navy regulations.

4.2 AGRICULTURE AND SILVICULTURE

Agriculture, in the form of row crop production and grazing or hay fields, is the prevalent activity on open land on and around the NOLFs being evaluated in this EA. Silviculture, in the form of pine tree production, is also a common activity around the NOLFs. Extension or construction of runways and Type I Clear Zones would remove some existing agriculture and silviculture areas from production. Current agricultural leases at Summerdale NOLF may continue or be modified as a result of the Proposed Action, but the extent of any lease changes cannot be determined at this time. A significant impact on agriculture or silviculture would occur if an action would remove from cultivation a significant portion of a crop unique to the area or a crop not easily cultivated elsewhere.

4.2.1 Alternative 1: Proposed Action

Under the Proposed Action, 80 acres of land currently used for private agriculture production at Summerdale NOLF and 68 acres of private agriculture production around Barin NOLF would be removed from production. Approximately 17 acres of silviculture acreage within the Barin NOLF property boundary would be removed from production. The acreage removed from production would not be significant, when compared to the thousands of acres of other agricultural and

silviculture acreage in the area, and no particularly unique or valuable crops that cannot be produced readily at other nearby locations are produced on the impacted land.

4.2.2 Alternative 2: Barin NOLF and Silverhill NOLF

Under Alternative 2, 70 acres of land currently used for private agriculture production at Silverhill NOLF and 68 acres of private agricultural land at Barin NOLF would be removed from production. Approximately 8 acres of silviculture land within the Silverhill NOLF and 17 acres of silviculture land within Barin NOLF would be removed from production. The acreage removed from production would have similar effects as indicated for the Proposed Action.

4.2.3 Alternative 3: Barin NOLF and Choctaw NOLF

Under Alternative 3, no land currently used for private agriculture production or for silviculture would be impacted.

4.2.4 Alternative 4: Silverhill NOLF and Summerdale NOLF

Under Alternative 4, impacts on land currently used for private agriculture production at Silverhill NOLF would be the same as for Alternative 2. Approximately 68 acres of land currently used for private agriculture production at and around Summerdale NOLF would be removed from production. The acreage removed from agricultural production would have similar effects as described for the Proposed Action.

Approximately 15 acres of pine plantation and other silviculture land would be removed from production around Silverhill and Summerdale NOLFs. Given the vast amount of other silviculture land in the area, removal of the impacted land from production would not significantly alter silviculture activities or timber production in the region.

4.2.5 Alternative 5: Barin NOLF and Wolf NOLF

Under Alternative 5, 109 acres of land currently used for private agriculture production at Wolf and Barin NOLFs would be removed from production. The acreage removed from agricultural production would have similar effects as described for the Proposed Action.

Approximately 55 acres of pine plantation and other forested land would be removed from production around Wolf and Barin NOLFs. Silviculture impacts at Barin NOLF would be the

same as for the Proposed Action, and impacts at Wolf NOLF would be insignificant, given the thousands of acres of silviculture around the field.

4.2.6 Alternative 6: Barin NOLF and Single Runways at Summerdale and Silverhill NOLFs

Under Alternative 6, 151 acres of land currently used for private agriculture production at Barin, Summerdale and Silverhill NOLFs would be removed from production. The acreage removed from agricultural production would not be significant, when compared to the vast amount of other agricultural acreage in the area, and no particularly unique or valuable crops are produced on the impacted land.

Approximately 25 acres of pine plantation and other forested land would be removed from production around Barin, Summerdale and Silverhill NOLFs, but there is abundant similar land around the field. Silviculture impacts would be the same as for the Proposed Action, so no significant silviculture impacts would occur.

4.2.7 Alternative 7: Barin NOLF and Existing Runways at Summerdale NOLF (10-28 and 16-34)

Under Alternative 7, 138 acres of land currently used for private agriculture production at Barin and Summerdale NOLFs would be removed from production. The acreage removed from agricultural production would not be significant, and would have similar effects as described for the Proposed Action. Silviculture impacts at Barin NOLF would be the same as for the Proposed Action.

4.2.8 Alternative 8: Barin NOLF and Summerdale NOLF (Runway 16-34 and New Runway 9-27)

Under Alternative 8, 107 acres of land currently used for private agriculture production at Barin and Summerdale NOLFs would be removed from production. Approximately 24 acres of silviculture acreage at Barin and Summerdale NOLFs would be removed from production. The acreage removed from production would not be significant, when compared to the vast amount of other agricultural and silviculture acreage in the area, and no particularly unique or valuable crops that cannot be produced readily at other nearby locations are produced on the impacted land.

4.2.9 Alternative 9: Barin NOLF, New Runway 9-27 at Summerdale NOLF and Existing Runway 16-24 at Silverhill NOLF

Under Alternative 9, 163 acres of land currently used for private agriculture production at Barin, Summerdale and Silverhill NOLFs would be removed from production. Agricultural production impacts would be similar to Alternative 6, and would not be significant.

Approximately 25 acres of private pine plantation and other forested land would be removed from production around the affected NOLFs. Silviculture impacts would be the similar to the Proposed Action. Therefore, implementation of Alternative 9 would not significantly alter silviculture activities in the region.

4.2.10 No Action Alternative

There would be no impacts on agriculture or silviculture for any of the NOLFs used by NASWF with the implementation of the No Action Alternative.

4.3 SOILS

4.3.1 Alternative 1: Proposed Action

Implementation of the Proposed Action, which requires ground disturbance for the construction of the extended runways at Barin and Summerdale NOLFs, would permanently impact approximately 203 acres of soils through construction of runway extensions and clearing of Type I Clear Zones. An additional 1.2 acres would be disturbed during the relocation of Doc McDuffie Road.

Ground disturbance associated with new construction would result in exposed soils and, consequently, an increased potential for erosion to occur in the vicinity and immediate surroundings. Compliance with the General Storm Water National Pollutant Discharge Elimination System (NPDES) permit required for construction, the development of a SWPPP, and implementation of standard construction best management practices (BMPs) would reduce the potential for erosion from construction activities. Environmental design measures described in Section 6 would be implemented to further reduce impacts on soils from project construction. Due to the measures proposed to limit the potential for soil erosion to occur, impacts on soils would be both temporary and insignificant.

4.3.2 Alternative 2: Barin NOLF and Silverhill NOLF

Implementation of Alternative 2, which requires ground disturbance for the construction of the extended runways at Barin and Silverhill NOLFs, would permanently impact approximately 222 acres of soils through construction of runway extensions and clearing of Type I Clear Zones. Impacts on soils would be similar to the Proposed Action.

4.3.3 Alternative 3: Barin NOLF and Choctaw NOLF

Implementation of Alternative 3, would require no ground disturbance for the construction of extended runways at Barin and Choctaw NOLFs, and, thus, would not impact any soil resources.

4.3.4 Alternative 4: Silverhill NOLF and Summerdale NOLF

Implementation of Alternative 4, which requires ground disturbance for the construction of the extended runways at Silverhill and Summerdale NOLFs, would permanently impact approximately 391 acres of soils through construction of runway extensions and clearing of Type I Clear Zones. An additional 27 acres of soils would be disturbed for the relocation of County Road 36 and County Road 38. Impacts on soils would similar to the Proposed Action.

4.3.5 Alternative 5: Barin NOLF and Wolf NOLF

Implementation of Alternative 5, which requires ground disturbance for the construction of the extended runways at Barin and Wolf NOLFs, would permanently impact approximately 205 acres of soils through construction of runway extensions and clearing of Type I Clear Zones. Impacts on soils would be similar to the Proposed Action.

4.3.6 Alternative 6: Barin NOLF and Single Runways at Summerdale and Silverhill NOLFs

Implementation of Alternative 6, which requires ground disturbance for the construction of the extended runways at Barin, Summerdale and Silverhill NOLFs, would permanently impact approximately 219 acres of soils through construction of runway extensions and clearing of Type I Clear Zones. Impacts on soils would be the similar to the Proposed Action.

4.3.7 Alternative 7: Barin NOLF and Existing Runways at Summerdale NOLF (10-28 and 16-34)

Implementation of Alternative 7, which requires ground disturbance for the construction of the extended runways at Barin and Summerdale NOLFs, would permanently impact approximately

217 acres of soils through construction of runway extensions and clearing of Type I Clear Zones. An additional 14 acres would be disturbed during the relocation of County Road 36; and an additional 1.2 acres would be disturbed during the relocation of Doc McDuffie Road. Impacts on soils would be similar to the Proposed Action.

4.3.8 Alternative 8: Barin NOLF and Summerdale NOLF (Runway 16-34 and New Runway 9-27)

Implementation of Alternative 8, which requires ground disturbance for the construction of the extended runways at Barin, a new runway at Summerdale NOLF and extension of one runway at Summerdale NOLF, would permanently impact approximately 223 acres of soils through construction of runways and extensions and clearing of Type I Clear Zones. An additional 14 acres would be disturbed during the relocation of County Road 36; and an additional 1.2 acres would be disturbed during the relocation of Doc McDuffie Road. Impacts on soils would be similar to the Proposed Action.

4.3.9 Alternative 9: Barin NOLF and Existing Runways at Summerdale NOLF (10-28 and 16-34)

Implementation of Alternative 9, which requires ground disturbance for the construction of the extended runways at Barin, a new runway at Summerdale NOLF and extension of one runway at Silverhill NOLF, would permanently impact approximately 225 acres of soils through construction of runways and extensions and clearing of Type I Clear Zones. Impacts on soils would be similar to the Proposed Action.

4.3.10 No Action Alternative

No construction would occur under the No Action Alternative. Therefore, there would be no additional direct impacts on soils at any of the NASWF NOLFs.

4.4 WATER RESOURCES

4.4.1 Alternative 1: Proposed Action

4.4.1.1 Surface Water

The Proposed Action would result in minimal impacts on surface water, since no natural surface water bodies, such as streams or lakes, are located within the area of fill or ground disturbance at NOLFs Barin and Summerdale, and BMPs would be used to prevent soil erosion that would impact nearby surface waters. A small pond (0.2 acre) would be impacted by Type 1 Clear

Zone fill at the east end of Runway 9-27 at Barin NOLF, but mitigation for filling the pond would be at a 1:1 ratio of mitigation to impacts. A 0.69-acre field drain at Summerdale NOLF classified as a WUS conveyance at the south end of Runway 4-22 would be impacted by Type 1 Clear Zone fill. The drain would be culverted under the clear zone fill so that the conveyance connection between wetland areas on the field would remain intact. No mitigation would be required for placing culverts in this field drain.

4.4.1.2 Wetlands

Construction of the Type I Clear Zone at the east end of Runway 9-27 at Barin NOLF would impact approximately 0.135 acre of jurisdictional wetlands. No wetlands would be impacted at Summerdale NOLF. Mitigation for the impacted wetlands at Barin would be accomplished through the CWA Section 404/401 permit process with the USACE and ADEM; thus, with no net loss of wetlands, the Proposed Action would have an insignificant impact on wetlands.

4.4.2 Alternative 2: Barin NOLF and Silverhill NOLF

4.4.2.1 Surface Water

The impacts on surface water quality from the implementation of Alternative 2 would be the same as those described for the Proposed Action.

4.4.2.2 Wetlands

Impacts on wetlands at Barin NOLF would be the same as for the Proposed Action. Construction of the Type I Clear Zone at the east end of Runway 9-27 at Silverhill NOLF would require filling of 1.08 acres of wetlands. This impact would be appropriately mitigated through the CWA Section 404/401 permit process with the USACE and ADEM by the purchase of credits at an approved wetland mitigation bank. Thus, with no net loss of wetlands, Alternative 2 would not have a significant impact on wetlands.

4.4.3 Alternative 3: Barin NOLF and Choctaw NOLF

4.4.3.1 Surface Water

No impacts on surface water quality from the implementation of Alternative 3 would occur, since there would be no new runway construction at Barin or Choctaw NOLFs.

4.4.3.2 Wetlands

There would be no impacts on wetlands at Choctaw NOLF, and impacts would be the same as the Proposed Action at Barin NOLF.

4.4.4 Alternative 4: Silverhill NOLF and Summerdale NOLF

4.4.4.1 Surface Water

The impacts on surface water quality from the implementation of Alternative 4 would be the same as those described for the Proposed Action.

4.4.4.2 Wetlands

Impacts on wetlands at Silverhill NOLF and Summerdale NOLF would be the same as for Alternative 2 and the Proposed Action.

4.4.5 Alternative 5: Barin NOLF and Wolf NOLF

4.4.5.1 Surface Water

The impacts on surface water quality from the implementation of Alternative 5 would be the same as those described for the Proposed Action.

4.4.5.2 Wetlands

Wetland impacts at Barin NOLF would be the same as the Proposed Action. Construction of Type I Clear Zones at Wolf NOLF would require the filling of 15.98 acres of wetlands. This impact would be appropriately mitigated through the CWA Section 404/401 permit process with the USACE and ADEM by the purchase of credits at an approved wetland mitigation bank. Thus, with no net loss of wetlands, Alternative 5 would not have a significant impact on wetlands.

4.4.6 Alternative 6: Barin NOLF and Single Runways at Summerdale and Silverhill NOLFs

4.4.6.1 Surface Water

The impacts on surface water quality from the implementation of Alternative 6 would be the same as those described for the Proposed Action.

4.4.6.2 Wetlands

Impacts on wetlands at Barin NOLF would be the same as for the Proposed Action. No wetland impacts would occur at Silverhill NOLF or Summerdale NOLF.

4.4.7 Alternative 7: Barin NOLF and Existing Runways at Summerdale NOLF (10-28 and 16-34)

4.4.7.1 Surface Water

The impacts on surface water quality from the implementation of Alternative 7 would be the same as those described for the Proposed Action.

4.4.7.2 Wetlands

Impacts on wetlands at Barin NOLF and Summerdale NOLF would be the same as for the Proposed Action.

4.4.8 Alternative 8: Barin NOLF and Summerdale NOLF (Runway 16-34 and New Runway 9-27)

4.4.8.1 Surface Water

The impacts on surface water quality from the implementation of Alternative 8 would be the same as those described for the Proposed Action.

4.4.8.2 Wetlands

Wetland impacts at Barin would be the same as the Proposed Action. There would be no impacts on wetlands at Summerdale NOLF.

4.4.9 Alternative 9: Barin NOLF, New Runway 9-27 at Summerdale NOLF and Existing Runway 16-24 at Silverhill NOLF

4.4.9.1 Surface Water

The impacts on surface water quality from the implementation of Alternative 9 would be the same as those described for the Proposed Action.

4.4.9.2 Wetlands

Impacts on wetlands at Barin NOLF and Summerdale NOLF would be the same as for Alternative 8. No wetlands would be impacted at Silverhill NOLF.

4.4.10 No Action Alternative

4.4.10.1 Surface Water

Under the No Action Alternative, future development of NOLFs associated with the JPATS program at NASWF would not occur, and there would be no impacts on surface water at NOLFs in the South MOA.

4.4.10.2 Wetlands

No wetland impacts would occur, since there would be no ground-disturbing activities.

4.5 BIOLOGICAL RESOURCES

4.5.1 Alternative 1: Proposed Action

4.5.1.1 Vegetation

Under the Proposed Action, approximately 165 acres of vegetation would be removed for construction of runways and clearing of Type I Clear Zones. The vegetation to be removed would consist of pastureland or hayfields, maintained agricultural crop fields, and pine forests dominated by loblolly pines and mixed deciduous species. None of these plant community types are rare or are a significant part of larger vegetation communities. Additionally, the clearance of airspace in Type III Clear Zones would result in removal of some taller pine trees. If any timber is harvested for the project, the Natural Resources Department would conduct a timber estimate and the contractor would pay the Navy Forestry Account fair market value for the timber. The timber would then become property of the contractor for his disposal. Therefore, impacts due to vegetation removal would be considered insignificant.

4.5.1.2 Wildlife

Some wildlife would be impacted from the removal of vegetation associated with the construction of extended runways and the clearing of Type I clear zones. The wildlife species most likely to be impacted are small mammals, reptiles, and amphibians that would not be capable of fleeing during construction activities, such as the initial clearing and grubbing of vegetated areas. Because the wildlife habitat to be removed by the Proposed Action is fragmented and disturbed, relatively immature, and locally and regionally common; and with the implementation of environmental design measures such as the avoidance of any nesting migratory birds during construction activities (see Section 6.0), the impacts on wildlife and their habitat would be insignificant. Furthermore, the operation of additional aircraft at the NOLFs

would have no impact on wildlife because current air operations have fully habituated wildlife in the project area to noise and aircraft movement. A previous bird-aircraft strike hazard (BASH) study did not find any significant risk for any of the NOLFs evaluated in this EA (Florida Natural Areas Inventory [FNAI] 2007c).

4.5.1.3 Threatened and Endangered Species

No Federal listed species would be affected by the Proposed Action. Foraging and nesting habitat for the gopher tortoise (Federal candidate species, state protected species) and marginal habitat for the eastern indigo snake (Federal threatened species) are present on Barin and Summerdale NOLFs, as well as on adjacent properties, and ground-disturbing activities associated with the extension of runways and the clearing of vegetation in the Type I Clear Zones would cause the loss of gopher tortoise and eastern indigo snake habitat. No eastern indigo snakes have been sighted in Baldwin County since 1990, and the presence of the species in the project area is very unlikely (USFWS 2007).

Although no active gopher tortoise burrows were observed during biological surveys of the NOLFs, additional surveys for gopher tortoises would be conducted immediately prior to any construction activities, and any gopher tortoises or eastern indigo snakes found on site would be avoided or relocated. If active gopher tortoise burrows are identified in the pre-construction surveys, consultation would be conducted with USFWS and ADCNR. Therefore, the direct impacts on Federal or state listed species from the implementation of the Proposed Action would be insignificant. There would be no indirect impacts on any listed species as a result of the long-term operational activities (e.g., additional flights) associated with the JPATS training program, because all listed species located in the vicinity of the NOLFs are habituated to air operations.

4.5.2 Alternative 2: Barin NOLF and Silverhill NOLF

The implementation of Alternative 2 would have similar impacts on biological resources as described for the Proposed Action. No active gopher tortoise burrows were observed during the biological surveys at Silverhill NOLF, but armadillo or small rodent burrows were observed on the field. The same precautions would be taken to protect gopher tortoise and eastern indigo snakes and their habitat as described above for the Proposed Action, so impacts on listed species would be insignificant.

4.5.3 Alternative 3: Barin NOLF and Choctaw NOLF

The implementation of Alternative 3 would have no impacts on biological resources, as there would be no additional runway or clear zone construction at Barin NOLF or Choctaw NOLF. The same precautions would be taken to protect gopher tortoise and eastern indigo snakes and their habitat as described above for the Proposed Action.

4.5.4 Alternative 4: Silverhill NOLF and Summerdale NOLF

The implementation of Alternative 4 would have similar impacts on biological resources for Summerdale and Silverhill NOLFs as described for the Proposed Action and Alternative 2. The same precautions would be taken to protect gopher tortoise and eastern indigo snakes and their habitat as described above for the Proposed Action, so impacts on listed species would be insignificant.

4.5.5 Alternative 5: Barin NOLF and Wolf NOLF

The implementation of Alternative 5 would have similar impacts on biological resources as described for the Proposed Action. No gopher tortoise burrows were observed during the biological surveys at Wolf NOLF, but armadillo or small rodent burrows were observed on the field. The same precautions would be taken to protect gopher tortoise and eastern indigo snakes and their habitat as described above for the Proposed Action, so impacts on listed species would be insignificant.

4.5.6 Alternative 6: Barin NOLF and Single Runways at Summerdale and Silverhill NOLFs

The implementation of Alternative 6 would have similar impacts on biological resources as described for the Proposed Action and Alternative 2. The same precautions would be taken to protect gopher tortoise and eastern indigo snakes and their habitat as described above for the Proposed Action, so impacts on listed species would be insignificant.

4.5.7 Alternative 7: Barin NOLF and Existing Runways at Summerdale NOLF (10-28 and 16-34)

The implementation of Alternative 7 would have similar impacts on biological resources as described for the Proposed Action. The same precautions would be taken to protect gopher tortoise and eastern indigo snakes and their habitat as described above for the Proposed Action, so impacts on listed species would be insignificant.

4.5.8 Alternative 8: Barin NOLF and Summerdale NOLF (Runway 16-34 and New Runway 9-27)

The implementation of Alternative 8 would have similar impacts on biological resources as described for the Proposed Action and Alternative 7. The same precautions would be taken to protect gopher tortoise and eastern indigo snakes and their habitat as described above for the Proposed Action, so impacts on listed species would be insignificant.

4.5.9 Alternative 9: Barin NOLF, New Runway 9-27 at Summerdale NOLF and Existing Runway 16-24 at Silverhill NOLF

The implementation of Alternative 9 would have similar impacts on biological resources as described for the Proposed Action and Alternative 2. The same precautions would be taken to protect gopher tortoise and eastern indigo snakes and their habitat as described above for the Proposed Action, so impacts on listed species would be insignificant.

4.5.10 No Action Alternative

There would be no impacts on biological resources because the No Action Alternative precludes the extension or modification of any NOLFs in the South MOA associated with the JPATS training program.

4.6 AIR QUALITY

Although all areas in Baldwin County, Alabama and Santa Rosa County, Florida are in attainment, the General Conformity Rule's impact analysis was utilized to provide a consistent approach to evaluating the impact of construction and aircraft emissions. The Air Conformity Application Model, used by the U.S. Air Force for conformity evaluations, was utilized to provide a level of consistency with respect to emissions factors and calculations. The air quality analysis focuses on the affects of the addition of aircraft, construction projects, and increased personnel.

4.6.1 Alternative 1: Proposed Action

4.6.1.1 *Air Emissions from Construction Activities*

Temporary and minor increases in air pollution would occur from the use of construction equipment (combustible emissions) and the disturbance of soils (fugitive dust) during construction of the new runway extensions and clearing approach areas at NOLFs Barin and

Summerdale. The following paragraphs describe the air calculation methodologies utilized to estimate air emissions produced by the Proposed Action.

Fugitive dust emissions were calculated using the emission factor of 0.19 ton per acre per month (Midwest Research Institute [MRI] 1996), which is a more current standard than the 1985 PM-10 emission factor of 1.2 tons per acre-month presented in AP-42 Section 13 Miscellaneous Sources 13.2.3.3 (USEPA 2001).

USEPA's NONROAD Model (USEPA 2005a) was used, as recommended by USEPA's *Procedures Document for National Emission Inventory, Criteria Air Pollutants, 1985-1999* (USEPA 2001), to calculate emissions from construction equipment. Combustible emission calculations were made for standard construction equipment, such as front-end loaders, backhoes, bulldozers, and cement trucks. Assumptions were made regarding the total number of days each piece of equipment will be used, and the number of hours per day each type of equipment will be used.

Construction workers would temporarily increase the combustible emissions in the airshed during their commute to and from the project area. Emissions from delivery trucks contribute to the overall air emission budget. Emissions from delivery trucks, construction worker commuters traveling to the job site were calculated using the USEPA MOBILE6.2 Model (USEPA 2005b, 2005c and 2005d).

The total air quality emissions were calculated for the construction activities to compare to the General Conformity Rule. Summaries of the total emissions for the Proposed Action are presented in Table 4-1. Details of the analyses are presented in Appendix C.

Several sources of air pollutants contribute to the over-all air impacts of the construction project. The air results in Table 4-1 included emissions from:

1. Combustible engines of construction equipment
2. Construction workers commute to and from work
3. Supply trucks delivering materials to construction site
4. Fugitive dust from job site ground disturbances

Table 4-1. Total Air Emissions (tons/year) from the Proposed Action Construction versus the *de minimis* Threshold Levels

Pollutant	Total (tons/year)	<i>De minimis</i> Thresholds (tons/yr)
CO	30.63	100
VOCs	7.24	100
NOx	77.57	100
PM-10	58.62	100
PM-2.5	10.79	100
Sulfur Dioxide (SO ₂)	9.01	100

Source: 40 CFR 51.853 and GSRC model projections.

1. Note that Baldwin County is in attainment for all NAAQS.

As shown in Table 4-1, the proposed construction activities do not exceed Federal *de minimis* thresholds; and thus, do not require a Conformity Determination. As there are no violations of air quality standards, there would be no significant impacts on air quality from the implementation of the Proposed Action.

Civilian structures located in the runway extensions and Type I Clear Zones would have to be removed. If the structures scheduled to be removed are older than 40 years, the structures would be inspected for asbestos-containing material (ACM). If ACM is found in any of the structures, an Asbestos Dust Mitigation Plan would be implemented to mitigate the exposure and migration of the asbestos.

During the construction of the proposed project, proper and routine maintenance of all vehicles and other construction equipment would be implemented to ensure that emissions are within the design standards of all construction equipment. Dust suppression methods should be implemented to minimize fugitive dust. In particular, wetting solutions would be applied to construction area to minimize the emissions of fugitive dust. By using these environmental design measures, air emissions from the Proposed Action would be temporary and should not significantly impair air quality in the region.

4.6.1.2 Air Emissions from Ongoing Airfield Operations

Barin NOLF

Air pollutant emissions from aircraft operations for Barin NOLF were obtained from an EA prepared by the Navy in 2000 for the implementation of JPATS (Navy 2000). Table 4-2 presents air emissions reported in the 2000 JPATS EA.

Table 4-2. Annual Air Emissions Produced by the Addition of T-6 JPATS Operations at Barin NOLF

Pollutant	Existing Conditions -1998 (tons/year)	Estimated Emissions 2009 (tons/year)	Net Change from 1998 (tons/year)
Hydrocarbons (HC)	1.5	2.3	+0.8
Nitrogen Oxides (NOx)	2.9	2.8	-0.1
Carbon Monoxide (CO)	6.6	11.6	+5.0

Source: Navy 2000

Summerdale NOLF

Air pollutant emissions from aircraft operations for Summerdale NOLF were obtained from the 2000 JPATS EA (Navy 2000). The 2000 JPATS EA report did not estimate emissions specifically for Summerdale NOLF; however, estimates were made for similar solo operations at Evergreen NOLF. Estimates provided for Evergreen NOLF serve as a proxy for Summerdale NOLF and are shown in Table 4-3.

Ongoing air emissions from the Proposed Action are expected to increase slightly due to the implementation of T-6 JPATS solo capability. The new T-6 JPATS airfield operations are estimated to increase air emissions of HC by 1.5 tons per year and 9.3 tons per year for CO; however, NOx emissions are expected to decrease by 0.3 ton per year. Overall, there would be no significant net increase in air emissions from the Proposed Action. The Conformity Rule is not applicable because Baldwin County is in attainment for all NAAQS. No significant impacts on air quality in the region would result from ongoing operation of the Proposed Action.

Table 4-3. Estimated Annual Air Emissions Produced by the Addition of the T-6 JPATS Operations at Summerdale NOLF

Pollutant	Existing Conditions -1998 (tons/year)	Estimated Emissions - 2009 (tons/year)	Net Change from 1998 (tons/year)
Hydrocarbons (HC)	1.2	1.9	+0.7
Nitrogen Oxides (NOx)	2.8	2.6	-0.2
Carbon Monoxide (CO)	6.0	10.3	+4.3

Source: Navy 2000

4.6.2 Alternative 2: Barin NOLF and Silverhill NOLF

Emissions were not modeled separately for Alternative 2 because the assumptions and considerations used to model emissions resulting from the Proposed Action would not change. Significant impacts on air quality are not anticipated from Alternative 2.

4.6.3 Alternative 3: Barin NOLF and Choctaw NOLF

Emissions were not modeled separately for Alternative 3 because the assumptions and considerations used to model emissions resulting from the Proposed Action would not change. Significant impacts on air quality are not anticipated from Alternative 3.

4.6.4 Alternative 4: Silverhill NOLF and Summerdale NOLF

Emissions were not modeled separately for Alternative 4 because the assumptions and considerations used to model emissions resulting from the Proposed Action would not change. Significant impacts on air quality are not anticipated from Alternative 4.

4.6.5 Alternative 5: Barin NOLF and Wolf NOLF

Emissions were not modeled separately for Alternative 5 because the assumptions and considerations used to model emissions resulting from the Proposed Action would not change. Significant impacts on air quality are not anticipated from Alternative 5.

4.6.6 Alternative 6: Barin NOLF and Single Runways at Summerdale and Silverhill NOLFs

Emissions were not modeled separately for Alternative 6 because the assumptions and considerations used to model emissions resulting from the Proposed Action would not change. Significant impacts on air quality are not anticipated from Alternative 6.

4.6.7 Alternative 7: Barin NOLF and Existing Runways at Summerdale NOLF (10-28 and 16-34)

Emissions were not modeled separately for Alternative 7 because the assumptions and considerations used to model emissions resulting from the Proposed Action would not change. Significant impacts on air quality are not anticipated from Alternative 7.

4.6.8 Alternative 8: Barin NOLF and Summerdale NOLF (Runway 16-34 and New Runway 9-27)

Emissions were not modeled separately for Alternative 8 because the assumptions and considerations used to model emissions resulting from the Proposed Action would not change. Significant impacts on air quality are not anticipated from Alternative 8.

4.6.9 Alternative 9: Barin NOLF, New Runway 9-27 at Summerdale NOLF and Existing Runway 16-24 at Silverhill NOLF

Emissions were not modeled separately for Alternative 9 because the assumptions and considerations used to model emissions resulting from the Proposed Action would not change. Significant impacts on air quality are not anticipated from Alternative 9.

4.6.10 No Action Alternative

Based on the threshold criterion established if the Proposed Action did not occur, there would be no adverse impacts on regional air quality.

4.7 NOISE

4.7.1 Construction Noise

The installation of the new runway extensions and clear zones would require the use of common construction equipment. As a general rule of thumb, noise generated by a stationary noise source, or “point source,” will decrease by approximately 6 dBA over hard surfaces and 9 dBA over soft surfaces for each doubling of the distance. For example, if a noise source produces a noise level of 85 dBA at a reference distance of 50 feet over a hard surface, then the noise level would be 79 dBA at a distance of 100 feet from the noise source, 73 dBA at a distance of 200 feet, and so on. To estimate the attenuation of the noise over a given distance the following relationship is utilized:

$$\text{Equation 1: } dBA_2 = dBA_1 - 20 \log \left(\frac{d_2}{d_1} \right)$$

Where:

- dBA₂ = dBA at distance 2 from source (predicted)
- dBA₁ = dBA at distance 1 from source (measured)
- d₂ = Distance to location 2 from the source
- d₁ = Distance to location 1 from the source

Source: California Department of Transportation 1998

Table 4-4 describes noise emission levels for construction equipment which range from 76 dBA to 82 dBA at a distance of 50 feet (Federal Highway Administration [FHWA] 2007).

Table 4-4. A-Weighted (dBA) Sound Levels of Construction Equipment and Modeled Attenuation at Various Distances¹

Noise Source	50 feet	100 feet	200 feet	500 feet	1000 feet
Backhoe	78	72	66	58	52
Crane	81	75	69	61	55
Dump truck	76	70	64	56	50
Excavator	81	75	69	61	55
Front end loader	79	73	67	59	53
Concrete mixer truck	79	73	67	59	53
Pneumatic tools	81	75	69	61	55
Bull dozer	82	76	70	62	56
Generator	81	75	69	61	55

Source: FHWA 2007 and GSRC

1. The dBA at 50 feet is a measured noise emission (FHWA 2007). The 100 to 1,000 foot results are GSRC modeled estimates.

Assuming the worst case scenario of 82 dBA, the noise model projected that noise levels of 82 dBA from a point source (i.e., bull dozer) would have to travel 370 feet before the noise would be attenuated to an acceptable level of 65 dBA. To achieve an attenuation of 82 dBA to a normally unacceptable level of 75 dBA, the distance from the noise source to the receptor is 110 feet.

Finally, it should also be noted that the areas considered as part of the Proposed Action are already exposed to elevated day-night average noise levels (between 55 and 65 dBA DNL) resulting from aviation operations. While the noise from construction activities may be noticed while it is occurring, its overall duration would be relatively brief and would not be expected to significantly alter the acoustic environment of the region. All civilian noise receptors around the NOLFs being evaluated in the EA would be located greater than 500 feet from construction areas; therefore, there would be no significant noise impacts associated with the construction of the runways and clear zones at NASWF NOLFs.

4.7.2 Aircraft Noise

Aircraft operations noise for the T-6 aircraft was modeled for each NOLF using flight profiles designed to maximize the flight capabilities of the T-6 aircraft (Navy 2010). This involved

changes to the takeoff and landing speeds, power settings, climb and descent rates, pattern altitudes, and transition points previously used by the T-34. The proposed operations were modeled using NMAP7 and the new T-6 measured NOISEFILE data (Wyle 2007), modified to reflect actual parameters measured in the field by TW-5 personnel (Navy 2010).

Takeoff engine power requirements for the T-6 are much lower than those required for the T-34, which results in much lower engine noise emissions near the runway. The more powerful T-6 engine also allows the T-6 to climb on takeoff much steeper than the T-34, which puts the aircraft at pattern altitude shortly after takeoff and reduces ground-level noise impacts at the end of the runway. The number of T-6 aircraft operations at the NOLFs is also reduced from current operations, based on TW-5 training requirements, which results in a substantial reduction in the time-averaged noise levels at the NOLFs. All of these operations changes resulted in the reduced noise impacts presented in the following alternatives analyses.

4.7.2.1 Alternative 1: Proposed Action

Barin NOLF

Under Alternative 1, two runways would be extended to a length of 5,000 feet, and the area outside of the new Barin NOLF property line would not be affected by noise emissions greater than 60 DNL as shown in Figure 4-8. No noise receptors (residential homes) are located inside the proposed 60 dBA DNL noise contour.

Summerdale NOLF

There would be an increase in affected area within the 60 dBA DNL noise contours at Summerdale NOLF, but no areas outside of the new Summerdale NOLF property line would be impacted, as shown in Figure 4-9. No noise receptors (residential homes) are located inside the existing 60 dBA DNL noise contour.

Conclusion

No noise receptors are located inside the 60 dBA DNL noise contour under the Proposed Action. Noise greater than 65 dBA DNL and less than 75 dBA DNL is considered loud enough to cause annoyance to residents, but not at levels that can cause harm to human hearing. The Navy does not anticipate using the NOLFs for any nighttime operations; therefore, sleep interruptions would not occur. Due to the extension of runways and reduced noise from T-6

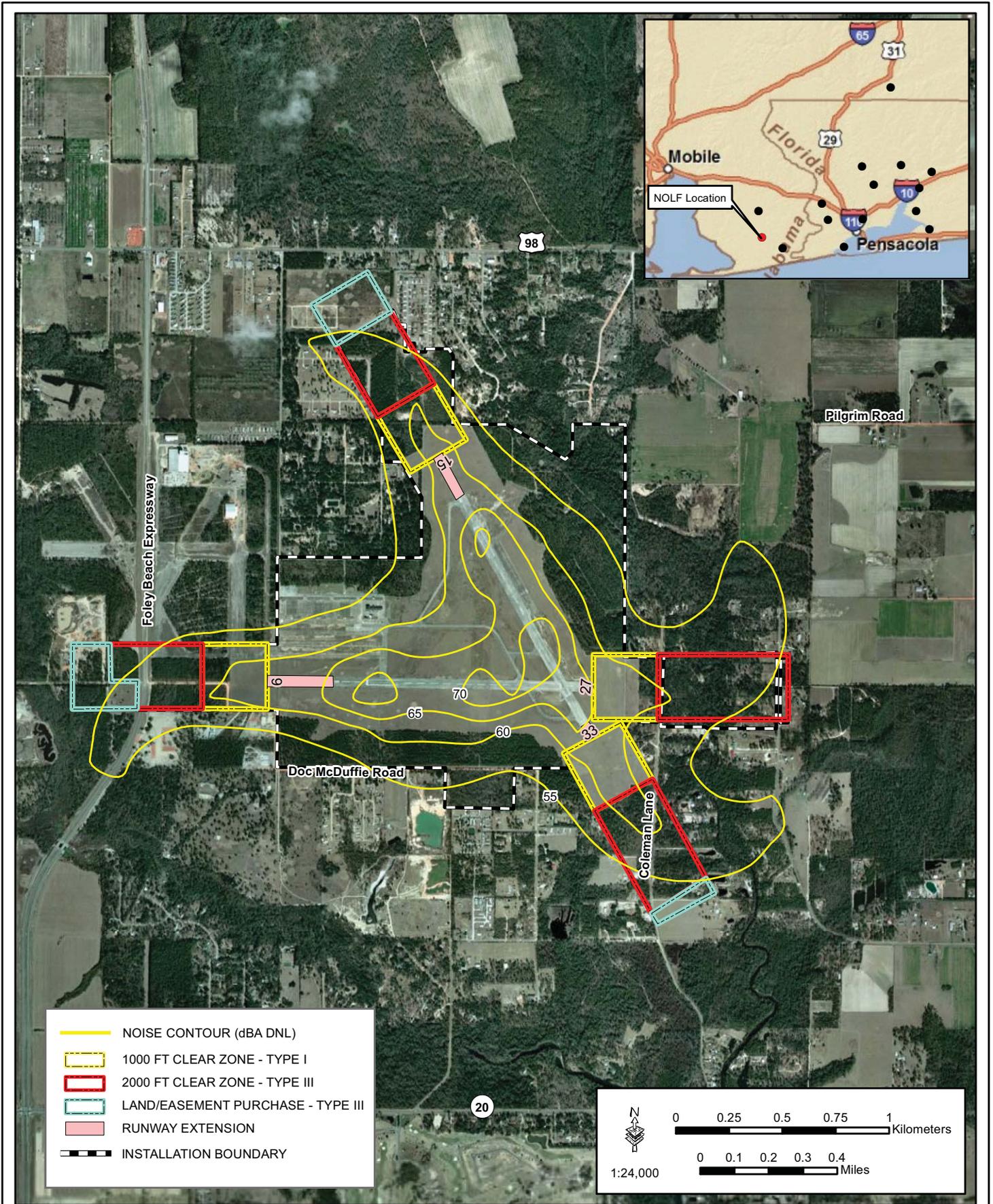


Figure 4-8: Barin NOLF Proposed Action T-6 Noise Contours

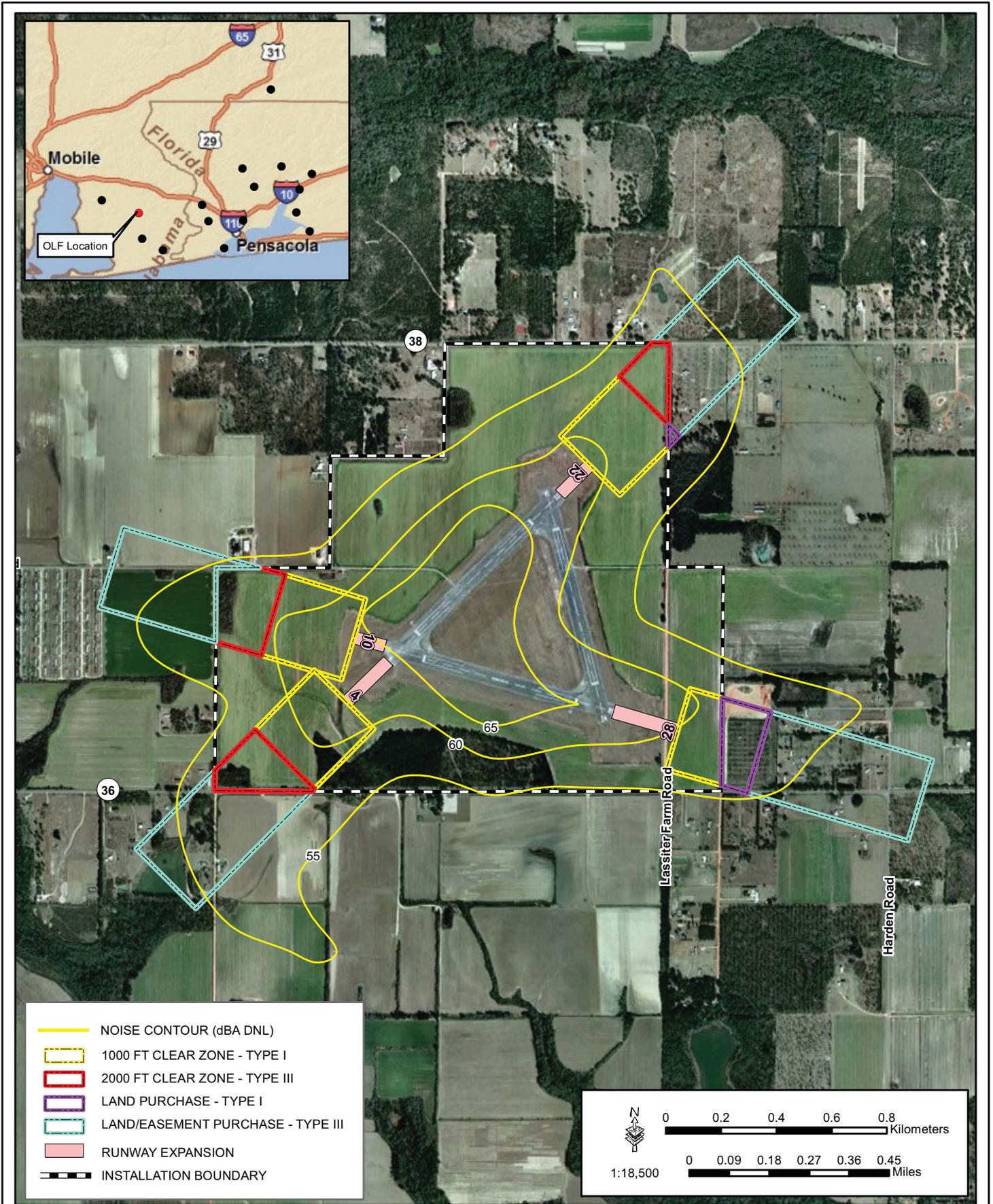


Figure 4-9: Summerdale NOLF Proposed Action T-6 Noise Contours



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aircraft, there is minimal potential to cause annoyance to residents surrounding Barin and Summerdale NOLFs; therefore, noise impacts would be insignificant.

4.7.2.2 Alternative 2: Barin NOLF and Silverhill NOLF

Barin NOLF

Noise emissions would be same as those described in the Proposed Action for Barin NOLF.

Silverhill NOLF

Silverhill NOLF would require the extension of two runways and a 10 percent increase in operations. The modeled operations at Silverhill NOLF showed that the 60 dBA DNL noise contours would not extend beyond the new NOLF boundaries (Figure 4-10). The number of noise receptors (residential homes) inside the 60 dBA DNL noise contour is zero; therefore, noise impacts would be insignificant.

4.7.2.3 Alternative 3: Barin NOLF and Choctaw NOLF

Barin NOLF

Under Alternative 3, the aircraft runways would not be extended, but the number of aircraft flights would increase. The results shown in Figure 4-11 were compared to baseline data which resulted in changes in the size and shape of the overall Barin NOLF noise contours.

No areas outside of the Barin NOLF property boundary would be affected by noise emissions greater than 60 DNL as shown in Figure 4-11. The number of noise receptors (residential homes) inside the existing 60 dBA DNL noise contour is zero; therefore, noise impacts would be insignificant for implementation of Alternative 3 at Barin NOLF.

Choctaw NOLF

There would be no significant changes in the runway configuration or traffic patterns at Choctaw NOLF; but the existing noise contours at Choctaw NOLF are all within the current property boundaries of Eglin AFB, so no civilian receptors would be affected.

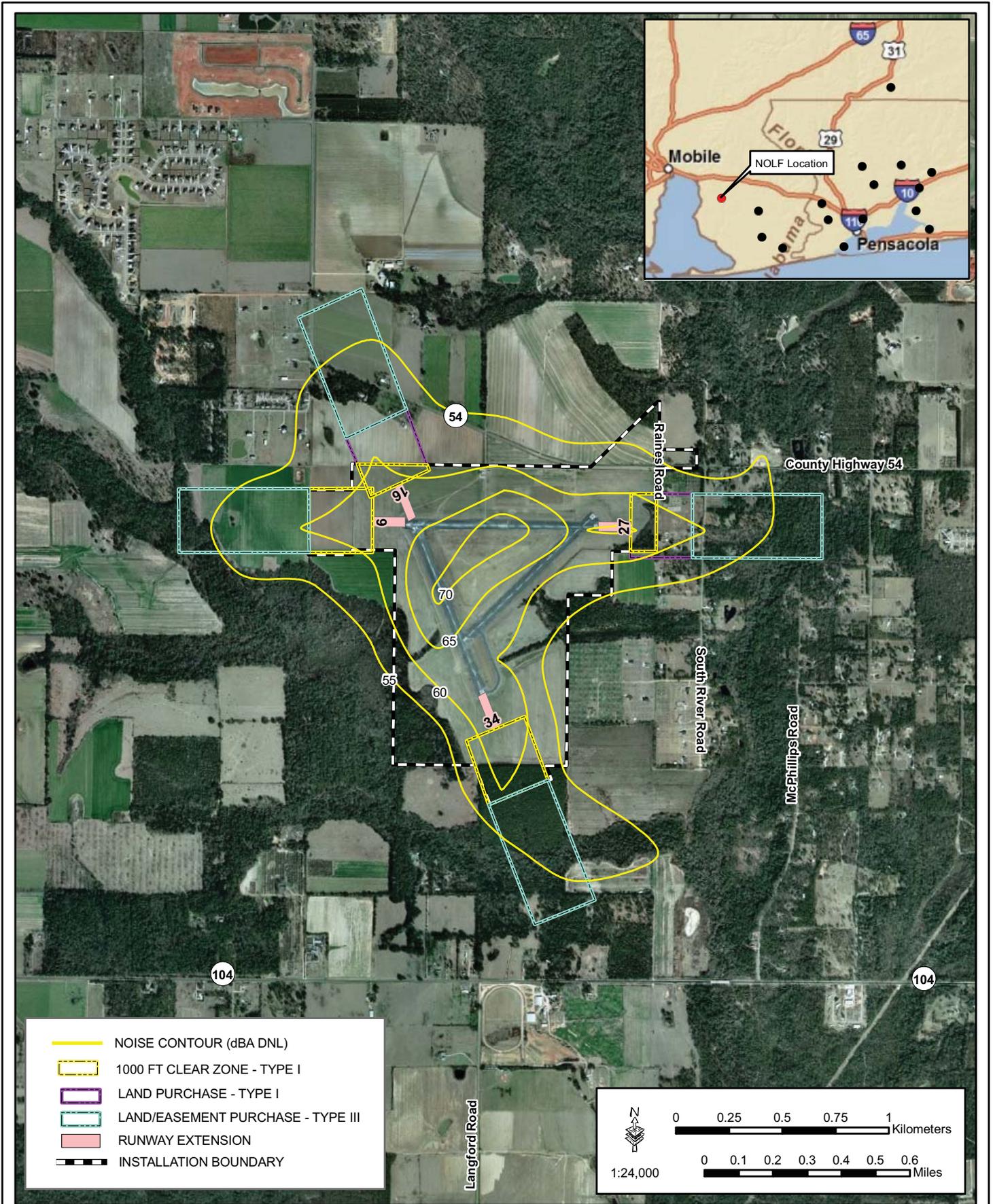


Figure 4-10: Alternative 2 Silverhill NOLF T-6 Noise Environment



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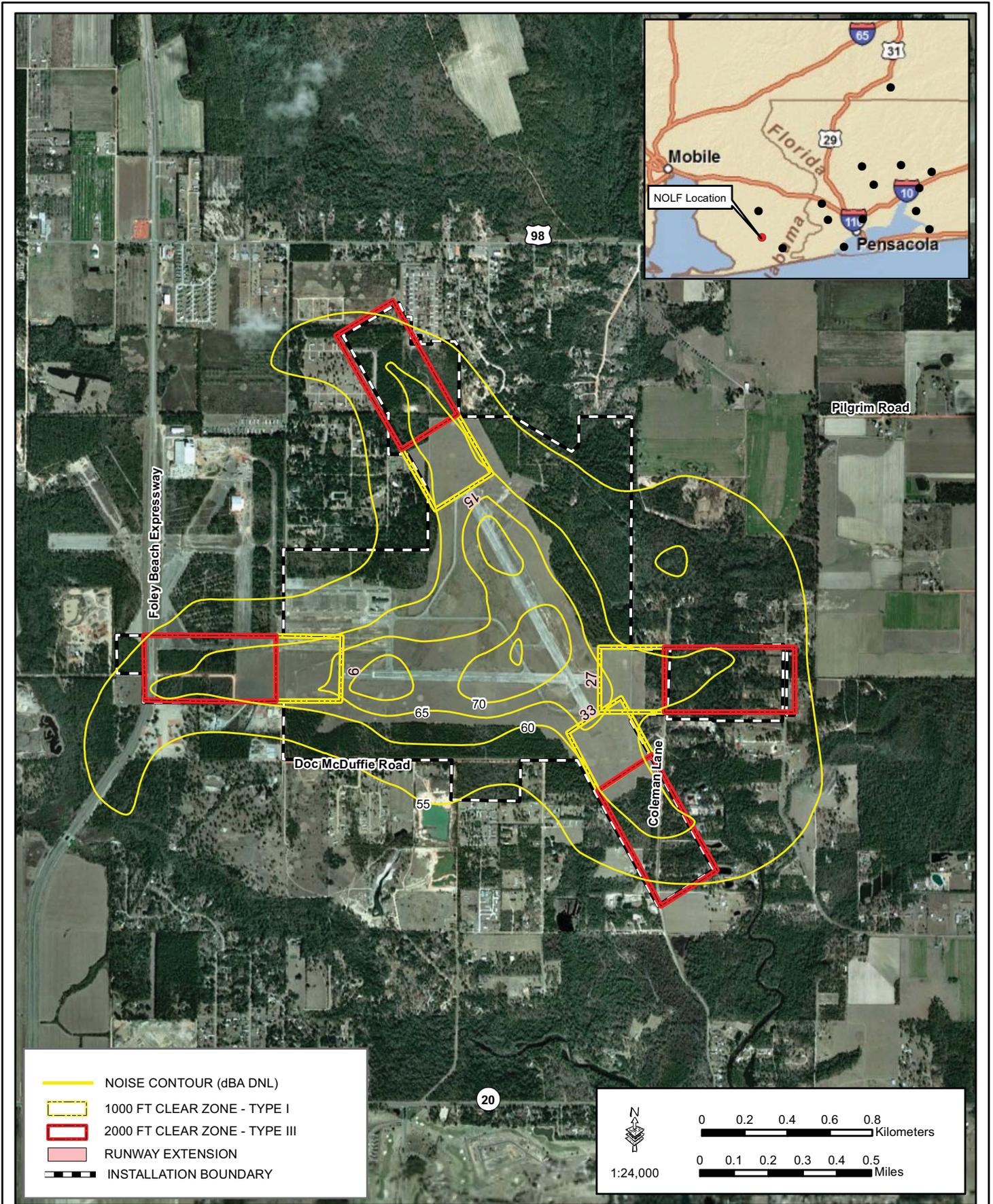


Figure 4-11: Alternative 3 Barin NOLF T-6 Noise Environment

4.7.2.4 Alternative 4: Silverhill NOLF and Summerdale NOLF

Silverhill NOLF

Under Alternative 4, the operational numbers would be the same for Silverhill NOLF as in Alternative 2; therefore, the contours and impacts discussed for Alternative 2 would be the same.

Summerdale

Under Alternative 4, Summerdale NOLF would extend the runways for T-6 solo operation to a length of 5,000 feet, and the 60 dBA DNL noise contours would remain within the new NOLF property boundaries, as shown in Figure 4-12. Insignificant noise impacts would result from implementation of Alternative 4 at Summerdale NOLF.

4.7.2.5 Alternative 5: Barin NOLF and Wolf NOLF

Barin NOLF

Noise emissions would be the same as those described in the Proposed Action for Barin NOLF.

Wolf NOLF

Wolf NOLF would require runway extensions to accommodate the T-6 aircraft, and the numbers of operations would increase. Noise contours at Wolf NOLF show that the 60 dBA DNL contour would not extend outside the new NOLF boundaries (Figure 4-13). Therefore, noise impacts would be insignificant for implementation of Alternative 5 at Wolf NOLF.

4.7.2.6 Alternative 6: Barin NOLF, Silverhill NOLF and Summerdale NOLF

Barin NOLF

Noise emissions would be the same as those described in the Proposed Action for Barin NOLF.

Summerdale NOLF

Under Alternative 6, only Runway 10-28, would be extended for T-6 dual operations. This configuration creates a slightly different noise contour, which is presented Figure 4-14; however, the 60 dBA DNL noise contour would not extend beyond the new NOLF property boundaries. Therefore, noise impacts would be insignificant.

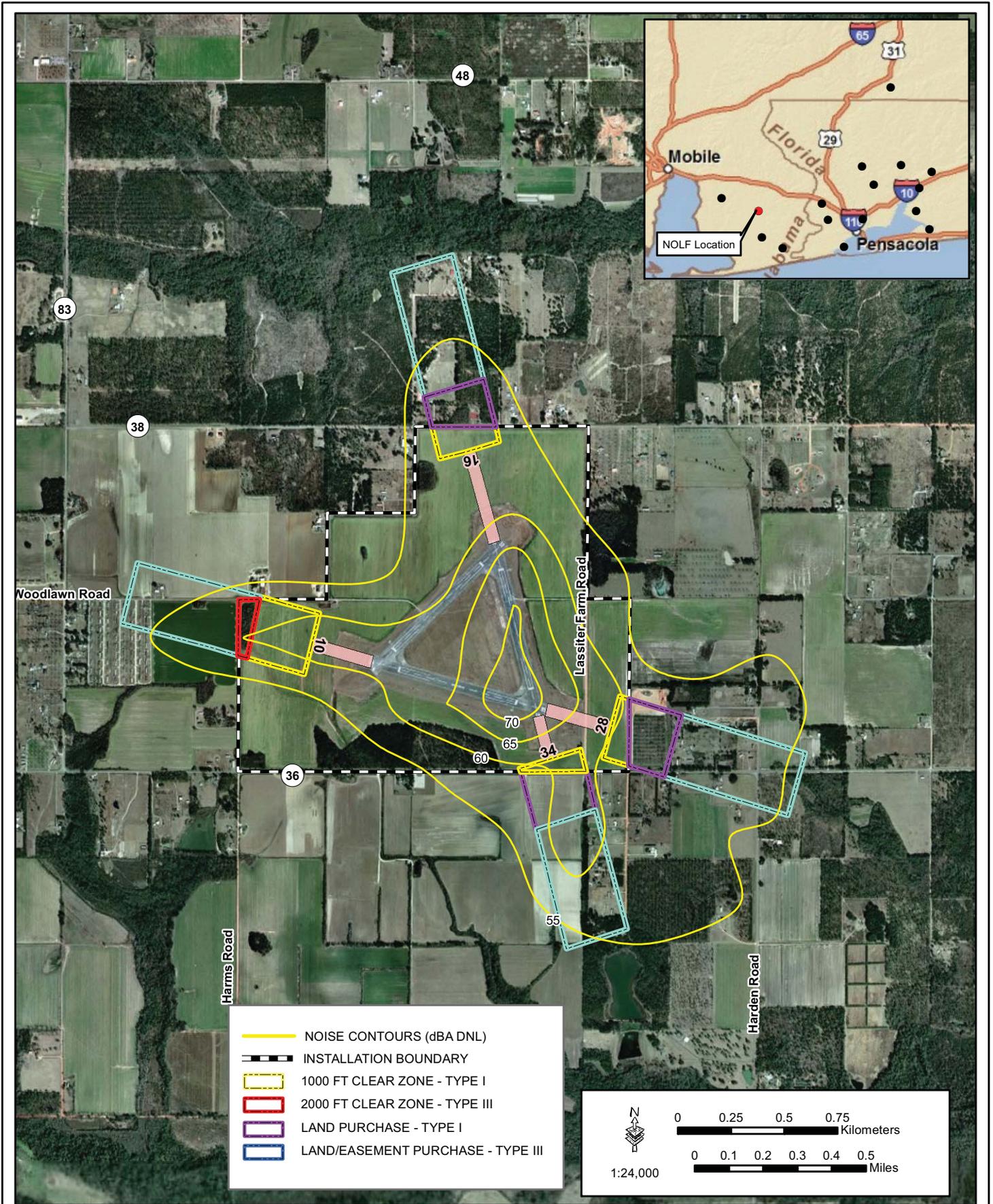


Figure 4-12: Alternative 4 Summerdale NOLF T-6 Noise Environment



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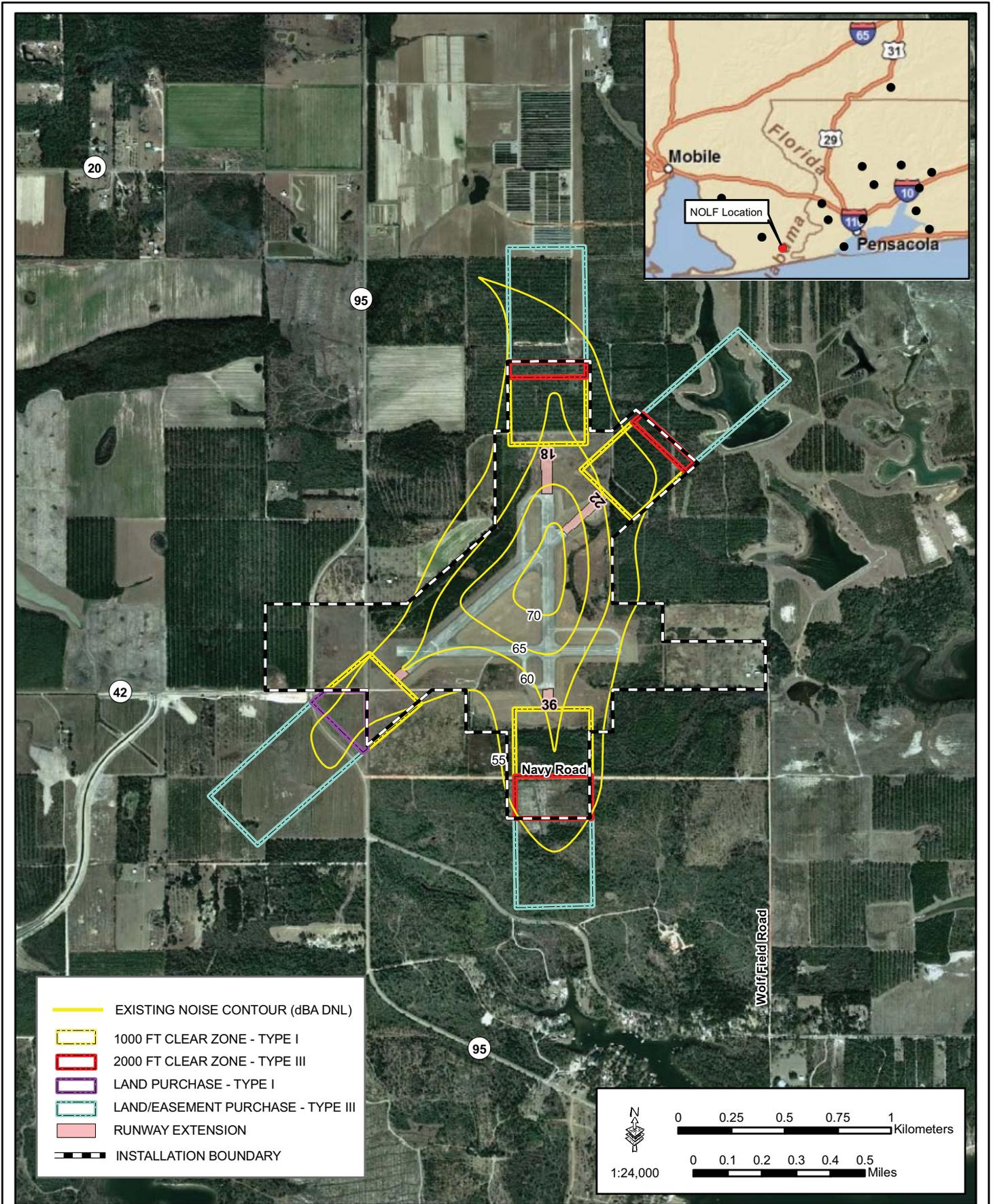


Figure 4-13: Alternative 5 Wolf NOLF T-6 Noise Environment

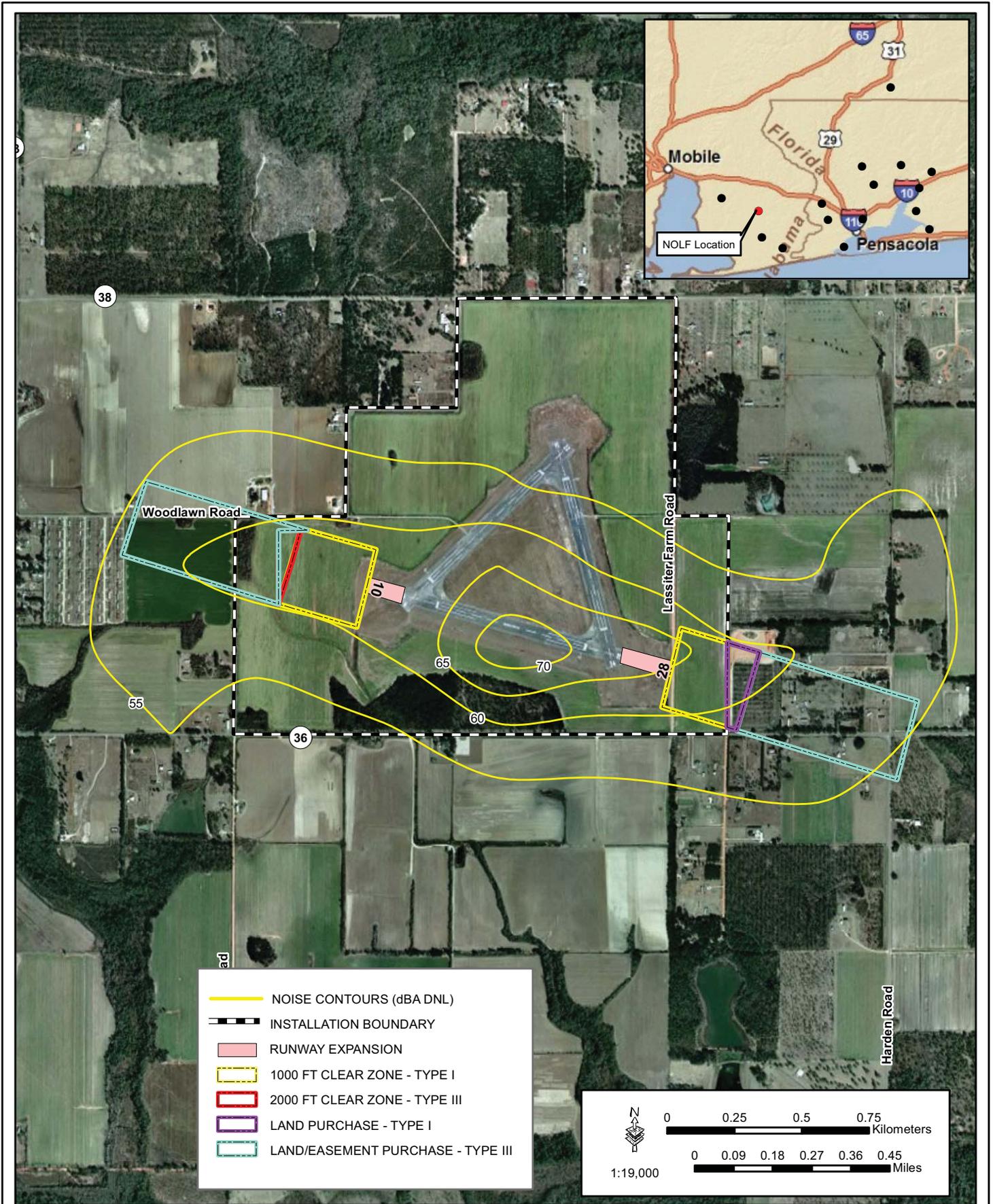


Figure 4-14: Alternative 6 Summerdale NOLF T-6 Noise Environment



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Silverhill NOLF

Under Alternative 6, only Runway 16-34, would be extended for T-6 dual operations. This configuration creates a slightly different noise contour, which is presented Figure 4-15; however, the 60 dBA DNL noise contour would not extend beyond the new NOLF property boundaries. Therefore, noise impacts would be insignificant.

4.7.2.7 Alternative 7: Barin NOLF and Existing Runways at Summerdale NOLF (10-28 and 16-34)

Barin NOLF

Noise emissions would be the same as those described in the Proposed Action for Barin NOLF.

Summerdale NOLF

The 60-dBA DNL noise contours from T-6 operations would not extend beyond the new Summerdale NOLF boundaries (Figure 4-16); therefore, noise impacts would be insignificant.

4.7.2.8 Alternative 8: Barin NOLF and Summerdale NOLF (Runway 16-34 and New Runway 9-27)

Barin NOLF

Noise emissions would be the same as those described in the Proposed Action for Barin NOLF.

Summerdale NOLF

The 60-dBA DNL noise contours from T-6 operations would not extend beyond the new NOLF boundaries (Figure 4-17); therefore, noise impacts would be insignificant.

4.7.2.9 Alternative 9: Barin NOLF, New Runway 9-27 at Summerdale NOLF and Existing Runway 16-24 at Silverhill NOLF

Barin NOLF

Noise emissions would be the same as those described in the Proposed Action for Barin NOLF.

Silverhill NOLF

Noise Emissions would be the same as those described in Alternative 6 for Silverhill NOLF.

Summerdale NOLF

Under Alternative 9, the old runways would be abandoned and a new 4,000-foot long east-west runway (9-27) would be constructed to accommodate dual T-6 operations. This configuration

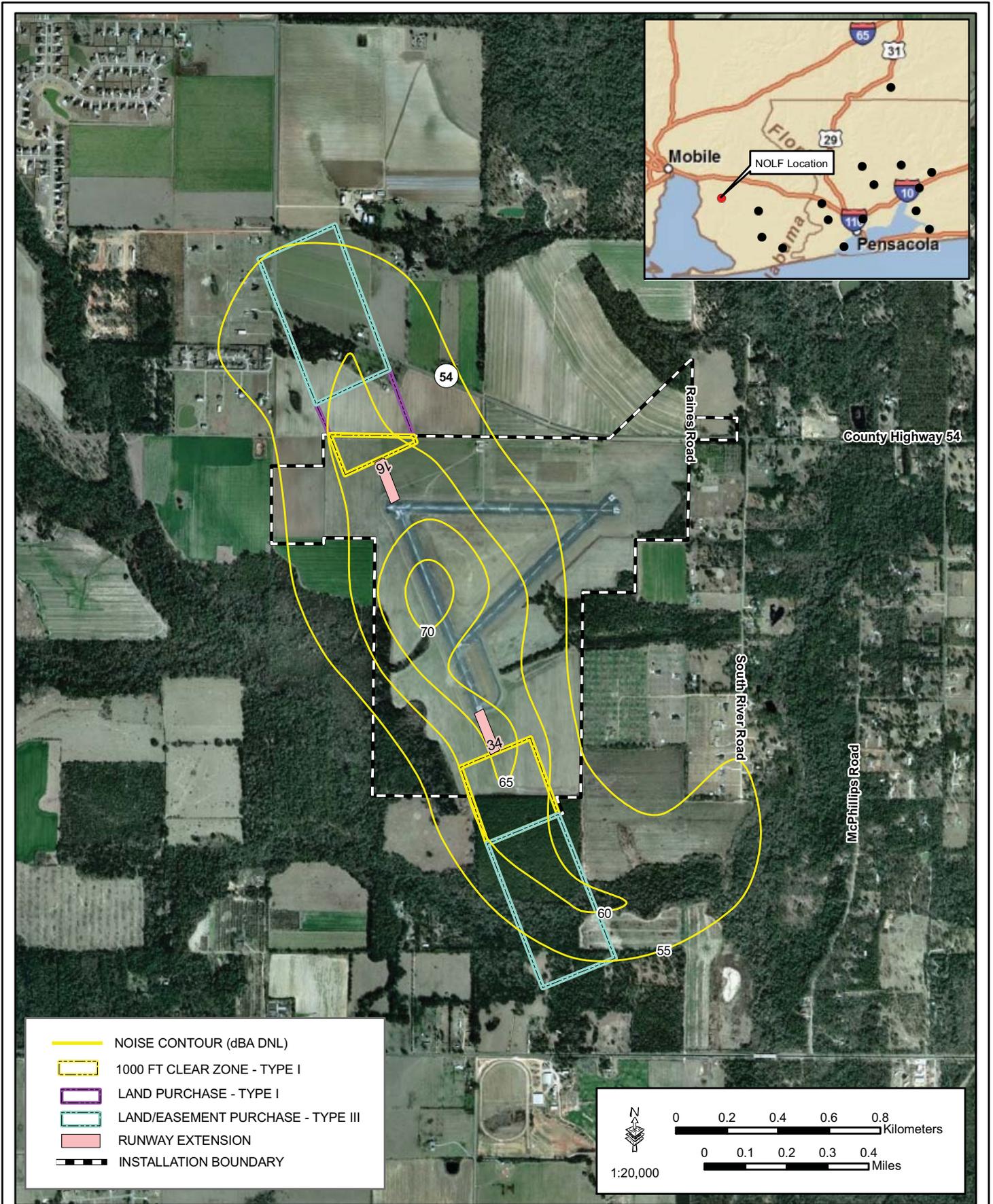


Figure 4-15: Alternative 6 Silverhill NOLF T-6 Noise Environment



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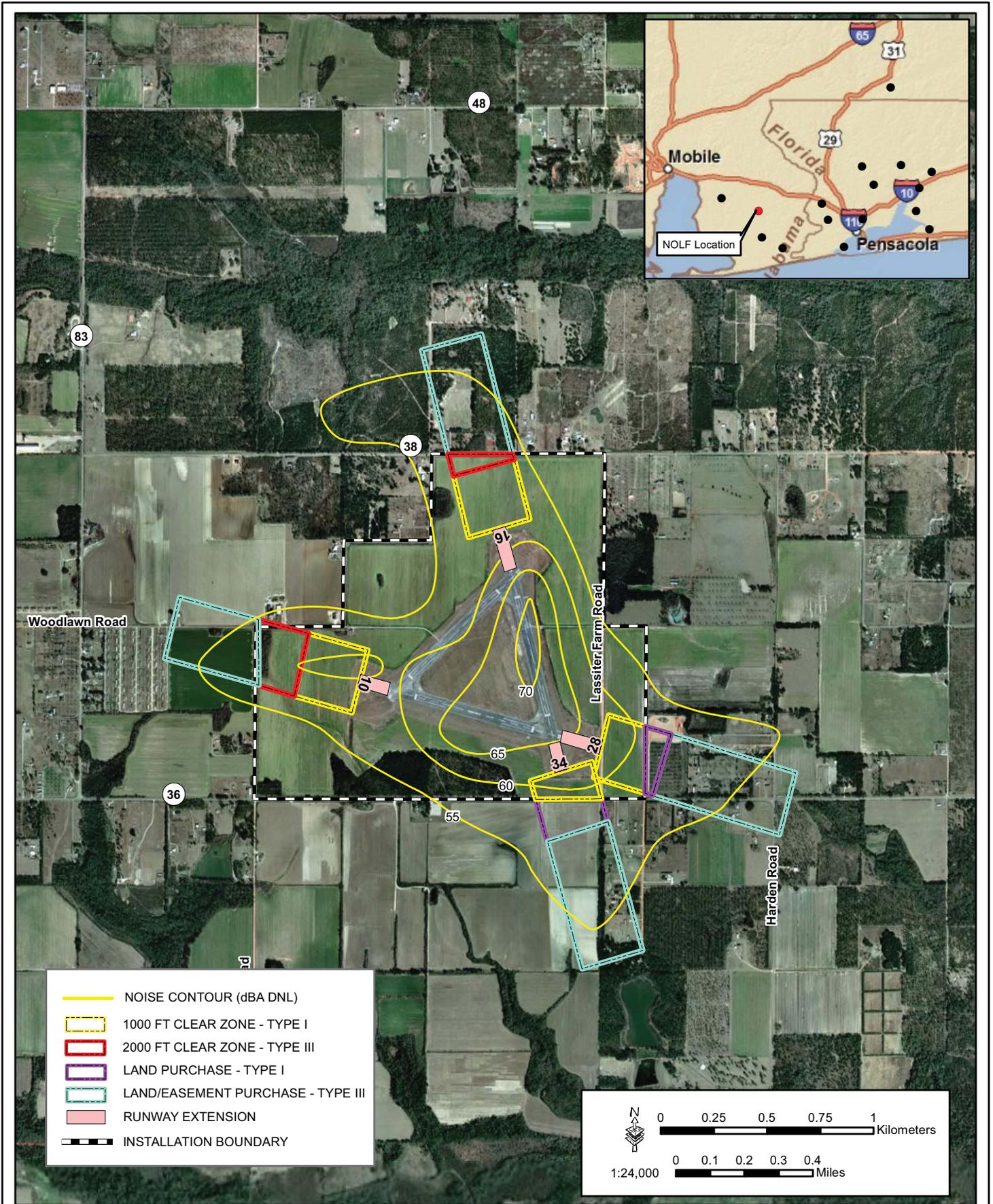


Figure 4-16: Alternative 7 Summerdale NOLF T-6 Noise Environment



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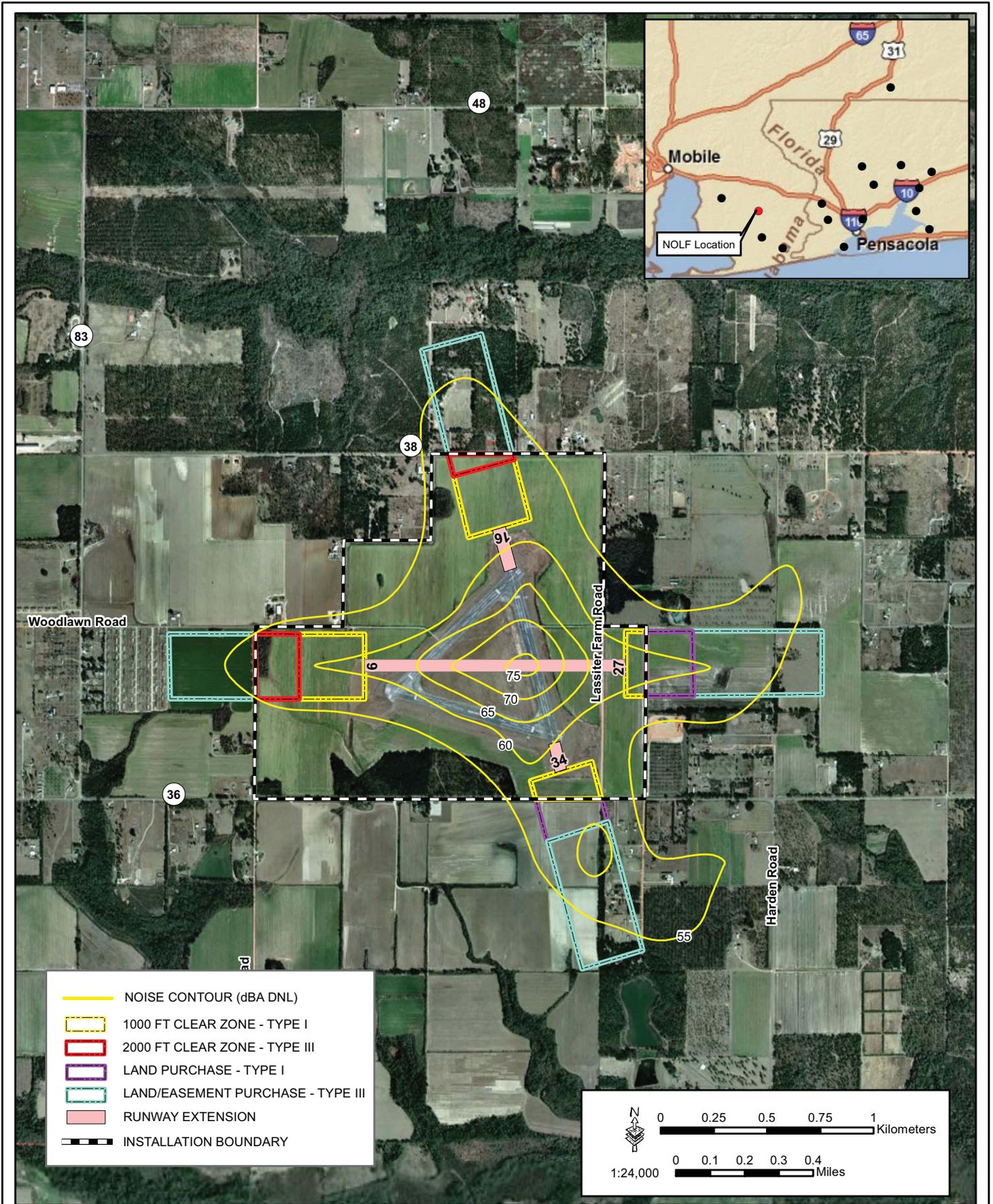


Figure 4-17: Alternative 8 Summerdale NOLF T-6 Noise Environment



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creates a slightly different noise contour, which is presented in Figure 4-18. The 60 dBA DNL noise contours would not extend beyond the new NOLF boundaries; therefore, noise impacts would be insignificant.

4.7.2.10 No Action Alternative

The noise environment would remain unchanged because there would be no additional aircraft or construction of facilities associated with NASWF training activities.

4.8 SOCIOECONOMICS, ENVIRONMENTAL JUSTICE AND PROTECTION OF CHILDREN

In order to assess the potential socioeconomic impacts of the Proposed Action, demographic and economic characteristics for Baldwin County and census tracts 107.03, 110, 115 and 116 were analyzed (see Figure 3-17). Potential socioeconomic consequences were assessed in terms of effects of the Proposed Action on the local economy, typically driven by changes in project location, expenditure levels and loss of property tax revenue.

Expansion of any of the NOLFs, except Choctaw NOLF, would entail the acquisition of private property, relocation of civilian population and businesses, and removal of structures, including residences. The amount of relocation and number of structures displaced varies among all of the NOLFs being considered, and was factored into the determination of the preferred alternative (Proposed Action). Interruption of agricultural practices on affected fields, as well as on adjacent acquired properties, may result in minor economic impacts for local residents. All property acquisition would follow the Uniform Relocation Assistance & Real Property Acquisition Policies Act of 1970 (as amended - 1987), Public Law 91-646; which specifies procedures to be followed in order to properly compensate private property owners for land acquired by the Federal Government, as well as to provide compensation for relocation expenses. A summary of mitigation and compensation measures for private property owners can be found in Section 6.3.7.

In addition, the anticipated environmental effects of the action alternatives are evaluated for their potential impact on environmental justice populations and the potential for special risks to children. The analysis focuses on the exposure of the affected communities to anticipated environmental effects, identifying potential areas of concern by demographics of known

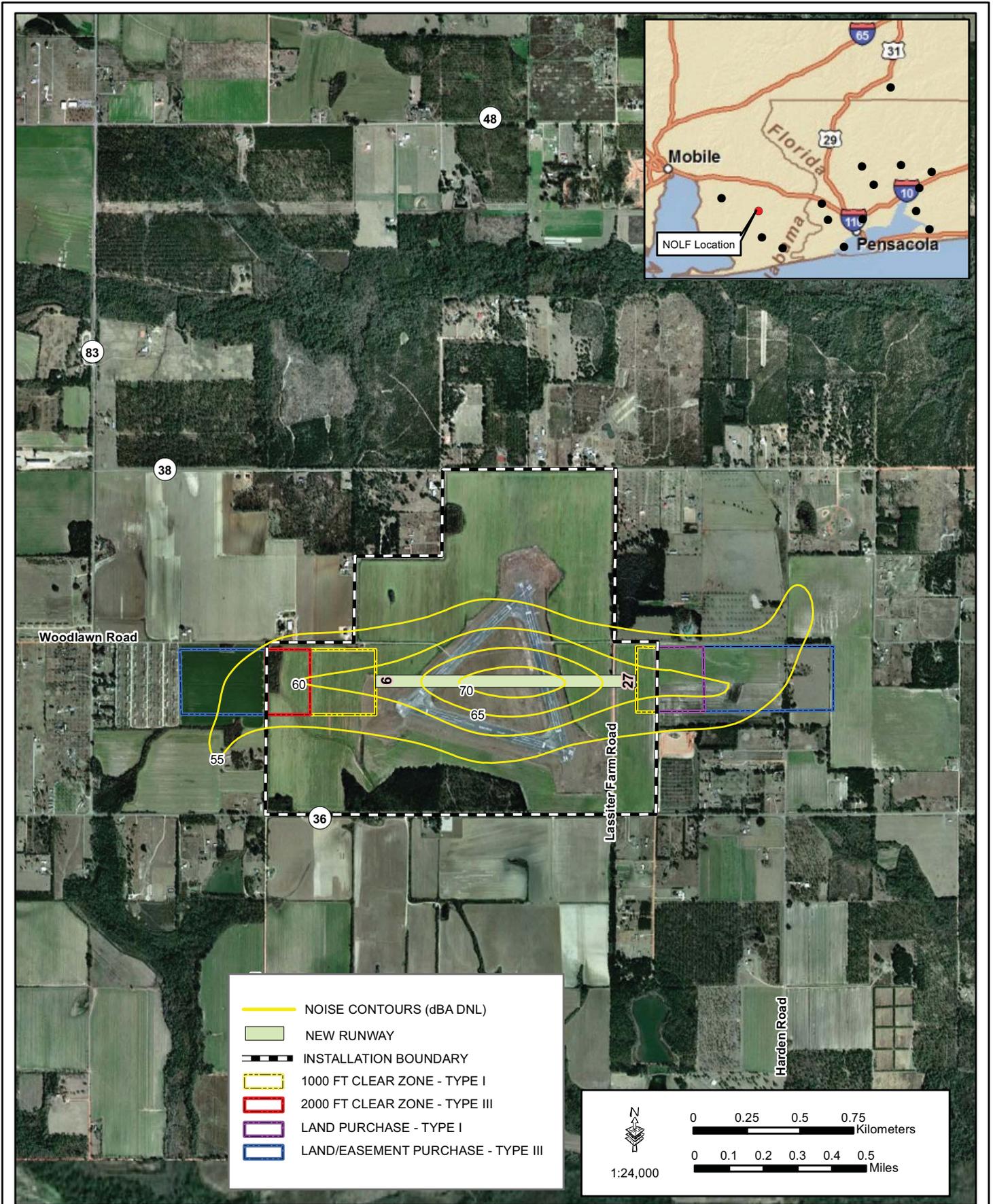


Figure 4-18: Alternative 9 Summerdale NOLF T-6 Noise Environment



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population distributions. Due to the nature of the Proposed Action, and the lack of any suitable alternatives other than to expand existing NOLFs for JPATS operations, the Proposed Action must impact properties and persons adjacent to the existing NOLFs. As shown in the analysis of other resource impacts, the Proposed Action was chosen regardless of the ethnicity or financial status of the persons living adjacent to the NOLFs. As shown in Table 3-7, the percentages of minority populations in the affected census tracts are below the average for the State of Alabama. The primary socioeconomic consideration used was the minimization of land purchase, resident relocation and removal of homes, while still maintaining sufficient resources to meet all training goals necessary for the JPATS T-6 conversion at NASWF.

Another impact related to the acquisition of private property for military use and for road ROW is the reduction of property tax revenue by Baldwin County due to removal of the acquired property from the tax rolls. Tax revenue impacts were calculated based on the current tax revenue generated by the affected properties, as reflected on the Baldwin County Tax Assessor website. For each property, it was assumed that the entire property would be purchased and removed from the tax rolls.

4.8.1 Alternative 1: Proposed Action

Approximately 203 acres of private land would be acquired to implement the Proposed Action. An estimated 21 single family residences and 20 other buildings (sheds and garages) would be purchased and removed as part of the Summerdale NOLF runway construction.

An estimated three single family residences and four other buildings would be purchased and removed as part of the expansion of Barin NOLF. One church is located adjacent to the AICUZ for the extended runways at Barin NOLF, and would experience a minor increase in aircraft noise from the Proposed Action. One church is located adjacent to the AICUZ for Summerdale NOLF, and would experience a minor increase in aircraft noise from the Proposed Action. Total annual tax revenue lost to Baldwin County would be \$7,872 at Summerdale NOLF and \$10,153 at Barin NOLF. This amount of property tax revenue would be considered insignificant relative to the total property tax revenue collected annually by Baldwin County (\$39,600,000).

No environmental justice concerns and special risks to children related to construction activity or aircraft operations due to safety and noise would occur, since adequate precautions to prevent unauthorized entrance into construction sites would be utilized, and property acquisition would

occur irrespective of minority populations (10.4 percent minority). Adequate owner compensation for removal of residences and structures and acquisition of property would reduce the impacts to less than significant.

4.8.2 Alternative 2: Barin NOLF and Silverhill NOLF

Socioeconomic impacts of Alternative 2 would be similar to those for the Proposed Action. The acquisition of at least 222 acres of private land, the removal of existing structures and the relocation of transportation routes under Alternative 2 would contribute to economic impacts for residents living near Barin and Silverhill NOLFs (*i.e.*, persons in census tracts 115 and 107.03).

Environmental justice concerns and special risks for children related to construction activity at Barin NOLF would be the same as those described under the Proposed Action. Property acquisition and resident relocation impacts for Barin NOLF would be the same as for the Proposed Action.

An estimated 16 single family residences would be purchased and removed as part of the Silverhill NOLF runway expansion, as well as 28 other smaller buildings. No environmental justice impacts would be associated with the proposed expansion of Silverhill NOLF runways and clear zones (14.5 percent minority), since adequate precautions to prevent unauthorized entrance into construction sites would be utilized, and property acquisition would occur irrespective of minority populations. Adequate owner compensation for removal of residences and structures and acquisition of property would reduce the impacts to less than significant. Total property tax revenue lost to Baldwin County at Silverhill NOLF would be \$16,786, which would be insignificant relative to the total annual property tax collected by Baldwin County.

4.8.3 Alternative 3: Barin NOLF and Choctaw NOLF

Under Alternative 3, there would be no impacts on socioeconomics and environmental justice concerns for Barin NOLF, since no additional property would be acquired. There would not be any expansion at the Choctaw NOLF site, and no private residences or structures would need to be relocated there.

4.8.4 Alternative 4: Silverhill NOLF and Summerdale NOLF

Approximately 441 acres of private land would be acquired under this alternative. Impacts from Alternative 4 would be the same as Alternative 2 for the expansion of Silverhill NOLF and similar

to the Proposed Action for Summerdale NOLF. A total of 54 single family residences and 44 other structures would be removed at Summerdale NOLF due to the extension of runways to a length of 5,000 feet. Relocation of County Road 38 and County Road 36 would involve the removal of four additional residences. An additional \$4,143 in tax revenue would be lost to Baldwin County at Summerdale NOLF. Total lost tax revenue for both NOLFs would be \$25,726. Adequate owner compensation for removal of residences and structures and acquisition of property would reduce the impacts to less than significant, but resident relocation impacts would be the greatest of all alternatives considered.

4.8.5 Alternative 5: Barin NOLF and Wolf NOLF

Approximately 205 acres of private land would be acquired under this alternative. Alternative 5 would have the same socioeconomic and environmental justice impacts as the Proposed Action for the Barin NOLF expansion. No residences or other buildings would be purchased or relocated around Wolf NOLF due to implementation of Alternative 5. A total of \$3,907 in property tax revenue would be lost to Baldwin County at Wolf NOLF, a relatively insignificant amount when compared to tax revenue for the entire county. Private property acquired around Wolf NOLF would consist of agricultural and silviculture land, and owners would be adequately compensated; therefore, the impacts would be insignificant.

4.8.6 Alternative 6: Barin NOLF and Single Runways at Summerdale and Silverhill NOLFs

Approximately 219 acres of private land would be purchased under this alternative. Alternative 6 would have the same socioeconomic and environmental justice impacts as the Proposed Action for the Barin NOLF expansion. Twelve single family residences would be purchased and removed as part of the Summerdale NOLF runway expansion. Six single family residences would be purchased and removed as part of the Silverhill NOLF runway expansion. Total property tax revenue lost to Baldwin County for Summerdale and Silverhill NOLFs would be \$10,357. Adequate owner compensation for removal of residences and structures and acquisition of property would occur, thus, the impacts would not be significant.

4.8.7 Alternative 7: Barin NOLF and Existing Runways at Summerdale NOLF (10-28 and 16-34)

Approximately 232 acres of private land would be purchased under Alternative 7 near Barin and Summerdale NOLFs. Impacts at Barin NOLF would be the same as for the Proposed Action. A total of 27 single family residences and 30 other small buildings would be purchased and

removed as part of the Summerdale NOLF runway expansions. One residence would be purchased and removed due to relocation of County Road 36. One church is located adjacent to the AICUZ for Summerdale NOLF, and would experience a minor increase in aircraft noise. Total property tax revenue lost to Baldwin County at Summerdale NOLF would be \$9,172, an insignificant amount relative to total property tax revenue for Baldwin County. Adequate owner compensation would be offered for removal of residences and structures and acquisition of property; therefore, the impacts would be insignificant.

4.8.8 Alternative 8: Barin NOLF and Summerdale NOLF (Runway 16-34 and New Runway 9-27)

Approximately 238 acres of private land would be acquired to implement Alternative 8. Socioeconomic impacts at Barin NOLF would be the same as for the Proposed Action. A total of 17 single family residences and 20 other buildings would be purchased and removed as part of the Summerdale NOLF runway construction. One residence would be purchased and removed due to the relocation of County Road 36.

One church is located adjacent to the AICUZ for the extended runways at Barin NOLF, and would experience a minor increase in aircraft noise from the Proposed Action. One church is located adjacent to the AICUZ for Summerdale NOLF, and would experience a minor increase in aircraft noise from the Proposed Action. Total tax revenue lost to Baldwin County would be \$8,941 at Summerdale NOLF and \$10,153 at Barin NOLF. This amount of property tax revenue would be considered insignificant relative to the total property tax revenue collected annually by Baldwin County (\$39.6 million).

No environmental justice concerns and special risks to children related to construction activity or aircraft operations due to safety and noise would occur, since adequate precautions to prevent unauthorized entrance into construction sites would be utilized, and property acquisition would occur irrespective of minority populations. Adequate owner compensation for removal of residences and structures and acquisition of property would reduce the impacts to less than significant.

4.8.9 Alternative 9: Barin NOLF, New Runway 9-27 at Summerdale NOLF and Existing Runway 16-24 at Silverhill NOLF

Approximately 225 acres of private land would be purchased under this alternative. Alternative 9 would have the same socioeconomic and environmental justice impacts as the Proposed

Action for the Barin NOLF expansion. Two single family residences and five other buildings would be purchased and removed as part of the new Summerdale NOLF runway construction. Six single family residences and eight smaller buildings would be removed at Silverhill NOLF. Total property tax revenue lost to Baldwin County for Summerdale and Silverhill NOLFs would be \$8,565. Adequate owner compensation for removal of residences and structures and acquisition of property would occur, and the impacts would be insignificant.

4.8.10 No Action Alternative

Under the No Action alternative, there would be no runway and clear zone extensions at NASWF NOLFs. No impacts on socioeconomic resources, environmental justice concerns, or special risks to children would occur with the implementation of the No Action Alternative.

4.9 CULTURAL RESOURCES

All of the action alternatives considered for modifying NOLFs for T-6 operations, except for the No Action Alternative, include some combination of extending existing runways or building additional runways, relocation of roads from Type I Clear Zones, and removal of structures from all clear zones. Those construction activities that involve ground disturbing activities have the potential to disturb any existing cultural deposits. Extending existing runways or building additional runways would require ground disturbance to create a level, paved all-weather landing surface. Creating Type I Clear Zones would require permanent removal of any existing vegetation to the ground surface. Removal of vegetation may require ground disturbance to clear stumps and roots from the earth and leveling the ground surface. Type III Clear zones only require trimming vegetation to the required height restriction and demolition of any structures. Provided the buildings being removed are not historic properties, creating Type I and Type III Clear Zones is not likely to cause any substantial ground disturbance or impacts on cultural resources. Relocation of roads from Type I Clear Zones would involve ground disturbances to the APE of the alternate road footprint chosen.

No additional cultural resource ground surveys have been performed for any of the private properties that might be purchased for this project. No right-of-entry (ROE) has been received to allow any additional surveys. Prior to construction of any of the runways, clear zones or roads being proposed in this EA, consultation with the SHPO would occur, and surveys for cultural resources would be conducted, if required. In order to facilitate the required surveys

and SHPO clearance under Section 106 of the NHPA, a letter agreement with the SHPO would be negotiated, in which detailed actions and surveys for each portion of the construction process are defined and agreed between NASWF and the SHPO. The NASWF 2000 ICRMP defines the process for evaluating and mitigating cultural resources impacts of future actions, and could provide a basis for the agreement.

The potential impacts on cultural resources for each action alternative are summarized below.

4.9.1 Alternative 1: Proposed Action

At Barin NOLF, a portion of the Area of Potential Effect (APE) selected for the construction of a Type I Clear Zone at the north end of Runway 6-34 has been previously surveyed for cultural resources (HDC 2002) and none were found. Although no ground disturbances are expected from construction of Type III Clear Zones, a portion of the area chosen for construction of a Type III Clear Zone at the western end of Runway 9-27 has been previously surveyed (Gage 1997) and no cultural resources were found.

At Barin NOLF, the construction of runway extensions and Type I Clear Zones would require ground disturbing activities and vegetation removal in areas that have not previously been surveyed, and would be subjected to the appropriate procedures outlined in the letter agreement and the NASWF 2000 ICRMP for compliance with Federal historic preservation law.

Doc McDuffie Road would require relocation from the Type I Clear Zone at the western end of Runway 9-27 at Barin NOLF. When the alternative property location for the road is purchased, the APE for the new road would also be subjected to the appropriate procedures outlined in the letter agreement and the NASWF 2000 ICRMP for compliance with Federal historic preservation law.

At Summerdale NOLF, ground disturbance is expected for runway extensions and construction. Presently, the areas where Type I Clear Zones are proposed are under cultivation and would not require extensive ground disturbance to clear, although some disturbance may be necessary to make the clear zone surface level with the runway surfaces. No cultural resources surveys have been reported for those areas of Summerdale NOLF where ground disturbing activity is proposed. Prior to construction, these areas will undergo the appropriate compliance procedures outlined in the letter agreement and the NASWF 2000 ICRMP.

Following cultural resource surveys of areas that would be disturbed by construction, and SHPO consultation in compliance with Section 106 of the NHPA, no significant impacts on cultural resources are expected as a result of the Proposed Action.

4.9.2 Alternative 2: Barin NOLF and Silverhill NOLF

Ground disturbance is expected to occur during construction of the runway extensions. The areas selected for Type I Clear Zones are presently under cultivation and would require minimal ground disturbance, if any. At present no cultural resources surveys have been reported for any of the lands at Silverhill NOLF included in the APE for this alternative action. Prior to construction and ground disturbing activity, the areas would undergo the appropriate compliance procedures outlined in the letter agreement and the NASWF 2000 ICRMP, and if resources are found, consultation with the SHPO, and appropriate mitigation, would be undertaken such that the impacts would be insignificant.

4.9.3 Alternative 3: Barin NOLF and Choctaw NOLF

Reducing the required area needed at Barin NOLF under this alternative would greatly reduce potential impacts on cultural resources; however, this alternative does not eliminate ground disturbance in areas not previously investigated for cultural resources. Ground disturbance would still occur in the Type I Clear Zone construction areas. Prior to construction activities, the areas of limited ground disturbance would undergo the appropriate compliance procedures outlined in the letter agreement and the NASWF 2000 ICRMP.

Choctaw NOLF is officially owned by Eglin AFB, although the Navy is permitted to use the field. Under this alternative, Choctaw NOLF would not require modification to accommodate solo T-6 operations, and there would be no impacts on cultural resources.

4.9.4 Alternative 4: Silverhill NOLF and Summerdale NOLF

Implementation of Alternative 4 would involve ground disturbing construction at Summerdale NOLF in areas not previously surveyed for cultural resources. Prior to construction activities, the areas where limited ground disturbance would occur would undergo the appropriate compliance procedures outlined in the letter agreement and the NASWF 2000 ICRMP. Cultural resources impacts at Silverhill NOLF would be the same as those discussed for the Proposed Action.

4.9.5 Alternative 5: Barin NOLF and Wolf NOLF

Impacts on cultural resources at Barin NOLF would be the same as those discussed for the Proposed Action.

The runway extensions at Wolf NOLF would require ground disturbing activity. Most of the areas proposed for Type I Clear Zones are presently clear and would require little vegetation removal, although topography may require some landscape modification to make the Type I Clear Zones level with the runway surfaces. Presently, no cultural resources surveys have been reported for the construction APE at Wolf NOLF. Prior to construction activities, the areas of limited ground disturbance would undergo the appropriate compliance procedures outlined in the letter agreement and the NASWF 2000 ICRMP.

4.9.6 Alternative 6: Barin NOLF and Single Runways at Summerdale and Silverhill NOLFs

Impacts on cultural resources at Barin NOLF would be the same as for the Proposed Action. Cultural resources impacts at Summerdale and Silverhill NOLFs would be the same as those discussed under Alternative 2 and the Proposed Action.

4.9.7 Alternative 7: Barin NOLF and Existing Runways at Summerdale NOLF (10-28 and 16-34)

Cultural resources impacts at Barin NOLF would be the same as for the Proposed Action. The runway extensions and clear zones at Summerdale NOLF would involve ground disturbance beyond the property limits for the field into areas that have not been surveyed for cultural resources. Prior to construction activities, the areas where the limited ground disturbance would occur would undergo the appropriate compliance procedures outlined in the letter agreement and the NASWF 2000 ICRMP.

4.9.8 Alternative 8: Barin NOLF and Summerdale NOLF (Runway 16-34 and New Runway 9-27)

Impacts on cultural resources at Barin NOLF and Summerdale NOLF would be the same as for the Proposed Action, with the addition of impacts associated with the relocation of County Road 36 at Summerdale NOLF. Prior to construction activities, the areas where the limited ground disturbance would occur would undergo the appropriate compliance procedures outlined in the letter agreement and the NASWF 2000 ICRMP; therefore, cultural resource impacts would be insignificant.

4.9.9 Alternative 9: Barin NOLF, New Runway 9-27 at Summerdale NOLF and Existing Runway 16-24 at Silverhill NOLF

Cultural resources impacts at Barin NOLF would be the same as for the Proposed Action. The new runway at Summerdale NOLF would involve ground disturbance beyond the property limits for the field, into areas that have not been surveyed for cultural resources. Prior to construction activities, the areas where the limited ground disturbance would occur would undergo the appropriate compliance procedures outlined in the letter agreement and the NASWF 2000 ICRMP; therefore, cultural resource impacts would be insignificant.

4.9.10 No Action Alternative

Under the No Action Alternative, no ground altering activities would be associated with construction activities. Therefore, there would be no impact on cultural resources at any of the NOLFs in the South MOA for NASWF.

4.10 TRANSPORTATION

4.10.1 Alternative 1: Proposed Action

Extension of runways and Type I Clear Zones at Barin NOLF would require the relocation of approximately 850 feet of Doc McDuffie Road, an improved dirt road located at the west end of Runway 9-27. This section of road is currently located on Navy property, and would be relocated to the south along the edge of the Navy property as shown previously in Figure 1-4. No structures would be affected by the road relocation. The affected section of the road consists of a right-angle turn, and a similar right-angle turn would be incorporated in the relocation; therefore, there would be no significant effect on traffic flow or traffic patterns. The relocated road would be constructed prior to removing the existing turn to avoid the need for traffic detours during construction.

Lassiter Farm Road, located along the east side of the current Summerdale NOLF boundary, would be closed or relocated east of the Type I Clear Zones for Runway 10-28 and Runway 4-22. This road provides local access through Summerdale NOLF to residences and structures that will be removed as part of the Proposed Action, so transportation impacts would be minimal. The road is a dirt road that connects County Road 36 and County Road 38. The removal of this road would not significantly affect the connectivity between the two larger county roads, since Harms Road, located along the west edge of the field, would not be impacted.

With adequate road design and additional ROW property purchase, no significant transportation impacts would result from the Proposed Action.

4.10.2 Alternative 2: Barin NOLF and Silverhill NOLF

Transportation impacts at Barin NOLF would be the same as described for the Proposed Action. Raines Road, a local paved road along the northeast side of Silverhill NOLF, would be removed within the Type I Clear Zone for Runway 9-27. This road provides access to residences in that area which would also be removed; and, thus, the road would be no longer needed. Therefore, the impacts on transportation for Alternative 2 would be insignificant.

4.10.3 Alternative 3: Barin NOLF and Choctaw NOLF

There would be no transportation impacts at Barin NOLF, since no roads are located within Class I Clear Zones. No additional construction is proposed at Choctaw NOLF; therefore, there would be no impacts on transportation for Alternative 3.

4.10.4 Alternative 4: Silverhill NOLF and Summerdale NOLF

Transportation impacts at Silverhill NOLF would be the same as described for Alternative 2. The transportation impacts at Summerdale NOLF would be similar to those described for the Proposed Action. County Road 38, north of Summerdale NOLF, would also be relocated in the same manner as County Road 36 to the south (see Figure 2-6). An estimated 27 acres of land would be purchased for the ROW for both road relocations. The impacts on transportation for Alternative 4 would be temporary and insignificant, since the new roads would be constructed prior to closing the old roads, and transportation would return to pre-project conditions after construction.

4.10.5 Alternative 5: Barin NOLF and Wolf NOLF

Transportation impacts at Barin NOLF would be the same as described for the Proposed Action. No public roads would be affected by runway extensions and Type I Clear Zones at Wolf NOLF; however, planned expansion of County Road 95 (Alabama Department of Transportation [ADOT] 2008) to accommodate additional traffic from the proposed new Wolf Bay bridge would pose additional traffic safety concerns at the south end of Runway 4-22 due to the proximity of the paved runway and Type I Clear Zone to the road. The impacts on transportation for Alternative 5 would be insignificant, since no roads would be relocated at Wolf NOLF.

4.10.6 Alternative 6: Barin NOLF and Single Runways at Summerdale and Silverhill NOLFs

Transportation impacts at Barin NOLF would be the same as described for the Proposed Action. Lassiter Farm Road would be affected by the runway extensions and Type I Clear Zone for Runway 10-28 at Summerdale, as described for Proposed Action; and Raines Road would be affected at Silverhill NOLF, as described for Alternative 2. Therefore, the impacts on transportation for Alternative 6 would be insignificant.

4.10.7 Alternative 7: Barin NOLF and Existing Runways at Summerdale NOLF (10-28 and 16-34)

Transportation impacts at Barin NOLF would be the same as described for the Proposed Action. Transportation impacts at Summerdale NOLF would be the very similar to the Proposed Action, with relocation of County Road 36 and Lassiter Farm Road. Therefore, the impacts on transportation for Alternative 7 would be insignificant.

4.10.8 Alternative 8: Barin NOLF and Summerdale NOLF (Runway 16-34 and New Runway 9-27)

Transportation impacts at Barin NOLF would be the same as for the Proposed Action. Extension of runways and Type I Clear Zones at Summerdale NOLF would require the relocation of County Road 36 at the south end of Runway 16-34 as shown previously in Figure 2-9. This road is a straight paved county road that extends a significant distance east and west of the impacted area. Relocation would involve moving the current road footprint to the south, and would require acquisition of an additional 14 acres of ROW (private property) in order to comply with standard ADOT road construction specifications to avoid turns in the road that would introduce safety concerns and speed limit restrictions. Temporary traffic detours around the relocated road construction area would be minimized by construction of the new road prior to closure of the existing road, and normal traffic flow would return to prior conditions when construction is completed. Therefore, transportation impacts as a result of Alternative 8 would be insignificant.

4.10.9 Alternative 9: Barin NOLF, New Runway 9-27 at Summerdale NOLF and Existing Runway 16-24 at Silverhill NOLF

Transportation impacts at Barin NOLF would be the same as described for the Proposed Action. Lassiter Farm Road would be affected by runway extensions and Type I Clear Zones at Summerdale NOLF as described for the Proposed Action, but County Road 36 would not be

affected. Raines Road would be impacted at Silverhill NOLF, as described for Alternative 2. Therefore, the impacts on transportation for Alternative 9 would be insignificant.

4.10.10 No Action Alternative

There would be no alteration of roads or traffic patterns as a result of the No Action Alternative, because the No Action Alternative precludes the extension of runways and clear zones at NOLFs in the south MOA.

4.11 AIRSPACE AND AIR TRANSPORTATION SAFETY

Airspace and air transportation safety issues involve impacts on air navigation near public and military airports, particularly within TRSAs and instrument approach or standard traffic patterns for airports. Conflicts between NASWF training flights and established air traffic patterns would pose a safety concern for student pilots and instructors, as well as other GA traffic.

4.11.1 Alternative 1: Proposed Action

Navigation between NASWF and Barin and Summerdale NOLFs by training flights would not involve any conflicts with traffic at other nearby airports. Training with T-34 aircraft is ongoing at these two NOLFs, and no conflicting air traffic concerns are present.

4.11.2 Alternative 2: Barin NOLF and Silverhill NOLF

Navigation between NASWF and Barin and Silverhill NOLFs by training flights would not involve any conflicts with traffic at other nearby airports. Training with T-34 aircraft is ongoing at these two NOLFs, and no conflicting air traffic concerns are present.

4.11.3 Alternative 3: Barin NOLF and Choctaw NOLF

Navigation between NASWF and Choctaw NOLF would involve operations adjacent to the Pensacola Regional Airport TRSA, and training operations over Choctaw NOLF would involve potential incursions into the base of the restricted airspace of that TRSA, as well as conflicts with approaches to Runway 26 at Pensacola Regional Airport. Restrictions in Area 2915 to the east would limit approaches and pattern traffic in that area. The heavy use of Choctaw NOLF by other Navy aircraft, as well as USAF aircraft from Eglin AFB, particularly advanced jet aircraft, would pose a serious safety risk for student pilots, since Choctaw would be a designated solo training field. Despite the use of Choctaw NOLF as an overflow field for TW-5

operations, the potential air traffic conflicts at Choctaw NOLF would be great enough that Choctaw NOLF would likely not be considered as a primary NOLF for NASWF T-6 solo training operations.

4.11.4 Alternative 4: Silverhill NOLF and Summerdale NOLF

Navigation between NASWF and Summerdale and Silverhill NOLFs by training flights would not involve any conflicts with traffic at other nearby airports. Training with T-34 aircraft is ongoing at these two NOLFs, and no conflicting air traffic concerns are present.

4.11.5 Alternative 5: Barin NOLF and Wolf NOLF

Navigation between NASWF and Wolf NOLF would involve operations adjacent to the Pensacola Regional Airport TRSA, and training operations over Wolf NOLF would involve potential incursions into the base of the restricted airspace of the NAS Pensacola TRSA. Wolf NOLF is also located in proximity to the approach and departure pattern for advanced jet aircraft operating on Runway 7-25 at NAS Pensacola, and in proximity to the instrument approach pattern for Jack Edwards Airport in Gulf Shores, Alabama. Horak Skydiving Field to the north would limit operations and approaches from that direction. Potential air traffic conflicts with training operations at Wolf NOLF would be great enough that Wolf NOLF would likely not be considered as a primary NOLF for NASWF T-6 dual training operations.

4.11.6 Alternative 6: Barin NOLF and Single Runways at Summerdale and Silverhill NOLFs

Navigation between NASWF and Barin, Summerdale and Silverhill NOLFs by training flights would not involve any conflicts with traffic at other nearby airports. Training with T-34 aircraft is ongoing at these NOLFs, and no conflicting air traffic concerns are present.

4.11.7 Alternative 7: Barin NOLF and Existing Runways at Summerdale NOLF (10-28 and 16-34)

Navigation between NASWF and Barin and Summerdale NOLFs by training flights would not involve any conflicts with traffic at other nearby airports. Training with T-34 aircraft is ongoing at these two NOLFs, and no conflicting air traffic concerns are present.

4.11.8 Alternative 8: Barin NOLF and Summerdale NOLF (Runway 16-34 and New Runway 9-27)

Navigation between NASWF and Barin and Summerdale NOLFs by training flights would not involve any conflicts with traffic at other nearby airports. Training with T-34 aircraft is ongoing at these two NOLFs, and no conflicting air traffic concerns are present.

4.11.9 Alternative 9: Barin NOLF, New Runway 9-27 at Summerdale NOLF and Existing Runway 16-24 at Silverhill NOLF

Navigation between NASWF and Barin, Summerdale and Silverhill NOLFs by training flights would not involve any conflicts with traffic at other nearby airports. Training with T-34 aircraft is ongoing at these NOLFs, and no conflicting air traffic concerns are present.

4.11.10 No Action Alternative

There would be no alteration of training operations or air traffic as a result of the No Action Alternative, because the No Action Alternative precludes the extension of runways and clear zones for T-6 operations at NOLFs in the South MOA.

4.12 SOLID AND HAZARDOUS MATERIALS AND WASTES

4.12.1 Alternative 1: Proposed Action

The potential exists for petroleum, oil, and lubricants (POL) storage and use at the runway construction areas to maintain and refuel construction equipment during construction activities; however, these activities would include primary and secondary containment measures. Clean-up materials (e.g., oil mops) would also be maintained at the site to allow immediate action in case an accidental spill occurs. Drip pans would be provided for stationary equipment to capture any POL accidentally spilled during maintenance activities or leaks from the equipment.

An Environmental Condition of Property (ECP) investigation would be conducted for all private property prior to acquisition by the Navy in order to clear the acquired property of any environmental hazard or risk. Appropriate testing and mitigation would be accomplished, if necessary, for any property found to contain hazardous materials that would present a risk to the Navy or the public.

Assuming the implementation of BMPs to control POL, and mitigation for any hazardous materials or conditions found in the ECPs, the Proposed Action would not result in a significant

hazard to the public or environment regarding the transport, use, or disposal of hazardous materials.

4.12.2 Alternative 2: Barin NOLF and Silverhill NOLF

The impacts on solid and hazardous materials or wastes from the implementation of Alternative 2 would be the same as described for the Proposed Action.

4.12.3 Alternative 3: Barin NOLF and Choctaw NOLF

The impacts on solid and hazardous materials or wastes from the implementation of Alternative 3 would be the same as described for the Proposed Action.

4.12.4 Alternative 4: Silverhill NOLF and Summerdale NOLF

The impacts on solid and hazardous materials or wastes from the implementation of Alternative 4 would be the same as described for the Proposed Action.

4.12.5 Alternative 5: Barin NOLF and Wolf NOLF

The impacts on solid and hazardous materials or wastes from the implementation of Alternative 5 would be the same as described for the Proposed Action.

4.12.6 Alternative 6: Barin NOLF and Single Runways at Summerdale and Silverhill NOLFs

The impacts on solid and hazardous materials or wastes from the implementation of Alternative 6 would be the same as described for the Proposed Action.

4.12.7 Alternative 7: Barin NOLF and Existing Runways at Summerdale NOLF (10-28 and 16-34)

The impacts on solid and hazardous materials or wastes from the implementation of Alternative 7 would be the same as described for the Proposed Action.

4.12.8 Alternative 8: Barin NOLF and Summerdale NOLF (Runway 16-34 and New Runway 9-27)

The impacts on solid and hazardous materials or wastes from the implementation of Alternative 8 would be the same as described for the Proposed Action.

4.12.9 Alternative 9: Barin NOLF, New Runway 9-27 at Summerdale NOLF and Existing Runway 16-24 at Silverhill NOLF

The impacts on solid and hazardous materials or wastes from the implementation of Alternative 9 would be the same as described for the Proposed Action.

4.12.10 No Action Alternative

No impacts on solid and hazardous materials or wastes would occur as a result of the No Action Alternative because no construction or clearing would occur at any NOLFs in the South MOA.

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SECTION 5.0
CUMULATIVE IMPACTS

5.0 CUMULATIVE IMPACTS

A cumulative impact is defined in 40 CFR §1508.7 as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.” By Memorandum dated June 24, 2005, from the Chairman of the CEQ to the Heads of Federal Agencies, entitled “Guidance on the Consideration of Past Actions in Cumulative Effects Analysis”, CEQ made clear its interpretation that “generally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions” and that the “CEQ regulations do not require agencies to catalogue or exhaustively list and analyze all individual past actions.”

5.1 PAST ACTIONS

NASWF was established in 1943 as an auxiliary NAS and has been used to train Naval aviators since that time. The NOLFs surrounding NASWF were also established around the same time, and were also used in training operations. Over time, the Navy’s mission at NASWF has changed due to transition from the original AT-6 training aircraft to the T-34 aircraft, and now to the T-6 JPATS aircraft.

Some fixed-wing NOLFs at NASWF were declared excess, and were returned to local government entities for reuse (*e.g.*, west portion of Barin Field). Others were converted for helicopter training. Hurricanes Ivan and Katrina damaged some NASWF facilities, and resulted in discontinued use of some NOLFs for landing operations (Wolf and Holley), although training maneuvers continue at those fields. NAS Pensacola also suffered extensive damage as a result of Hurricane Ivan, resulting in the removal, renovation and replacement of numerous facilities and structures, some of which were of historical significance. The historical structure impacts at NAS Pensacola were mitigated through consultation with the Florida SHPO and ACHP in accordance with Section 106 of the NHPA, so that there were no significant cumulative impacts.

The Navy has completed runway and clear zone extensions for T-6 operations at Brewton NOLF, a civilian field located in the North MOA.

5.2 PRESENT AND PROPOSED ACTIONS

An EA has been completed for runway and clear zone extensions at Evergreen NOLF, also a civilian field, in the NASWF North MOA to accommodate T-6 operations (Navy 2008b). Runways at the field would be extended to a length of 5,000 feet with Type I and Type III Clear Zones at the ends of the runways. No significant impacts were identified as a result of that proposed action.

An EA was completed in 2008 for Santa Rosa County's (SRC) Whiting Aviation Park, Naval Air Station Whiting Field, Milton, Florida (Navy 2008a). The proposed project would create a civilian aviation park on 269 acres adjacent to the NASWF South Field. No significant impacts were identified in the EA, and the project was finally covered by a Categorical Exemption (CATEX) for NEPA evaluation purposes.

Eglin AFB completed an Environmental Impact Statement (EIS) and issued a Record of Decision (ROD) for the 2005 Base Closure and Realignment Commission (BRAC) action which would relocate the Army 7th Special Forces Group Airborne to Eglin AFB from Fort Bragg, North Carolina, and locate the Joint Strike Fighter (JSF) Initial Joint Training Site to Eglin AFB (USAF 2008). Directly related to the NASWF alternative actions is the reconfiguration of Choctaw NOLF for use by JSF F-35 aircraft. Impacts related to the BRAC action would occur in Santa Rosa County, Florida, and would not be directly related to the NASWF NOLFs in Baldwin County, Alabama; thus, they would not contribute to cumulative adverse impacts in the area of interest (AOI).

NAS Pensacola completed an EA and FONSI for the BRAC action to relocate the USAF Undergraduate Navigator Training Program to NAS Pensacola from Randolph AFB (Navy 2007b). No significant impacts were identified for that proposed action.

Baldwin County, along with ADOT, is proposing to build a new bridge over Wolf Bay to connect the beach areas of Orange Beach with the relatively undeveloped areas north of Wolf Bay. This new bridge, along with new construction and improvements to County Road 95 with extensions to I-10 to the north, would result in increased development of the relatively rural areas around Wolf NOLF (City of Orange Beach 2007, ADOT 2008). Baldwin County is also proposing to expedite traffic flow on the toll bridge over the Intracoastal Waterway on the Foley Beach

Expressway to improve traffic flow on the expressway, as well as construction of an extension of the expressway directly to I-10, bypassing Highway 59. This would result in heavier traffic on the Foley Beach Expressway, which passes directly west of Barin NOLF. The extension of the Foley Beach Expressway directly to I-10 would also put that new roadway near Summerdale NOLF (ADOT 2008). Since the modifications of NOLFs would be in place by the time these road improvements are constructed, and future road extensions would be routed around the expanded NOLFs, there should be no cumulative impacts as a result of the Foley Beach Expressway extension.

5.3 CUMULATIVE IMPACTS OF THE PROPOSED ACTION

When taken in consideration with other ongoing and proposed construction projects proposed at NASWF, minor adverse cumulative impacts are anticipated for biological resources, noise, air quality and socioeconomics as a result of the implementation of the Proposed Action. The Proposed Action would cause a minor cumulative loss of vegetated areas in the Florida panhandle and south Alabama area and the loss of some habitat that supports relatively common wildlife species, as well as state protected species. All of these vegetated areas are located adjacent to similar common habitat and do not comprise significant sections of larger tracts of functional habitat. New construction projects in addition to the Proposed Action would have short-term impacts on air quality from combustible emissions and noise from heavy equipment operation during construction activities; however, following the completion of construction projects, air quality and noise levels would return to pre-construction conditions, and no significant cumulative impacts would occur. Continued operations of T-6 aircraft at NOLFs Barin and Summerdale would result in a minor increase in noise near those fields, but the increased noise would not exceed 60 dBA DNL for receptors near the NOLFs; and the reduction of operations at NOLFs Silverhill and Wolf would result in a cumulative reduction in noise effects at those fields. Therefore, the cumulative noise impacts from aircraft operations at NOLFs in Baldwin County would be minimal.

Cumulative impacts are anticipated for local and regional land use due to the conversion and purchase of private property for military use; however, the purchase and conversion would not be significant when compared to total resources in the AOI; and the reduction in taxable property in Baldwin County would not result in a significant impact on property tax collections in the county. Conversion of taxable property for future road construction would result in additional

cumulative effects on land use, but those effects cannot be quantified at this time. Transportation in Baldwin County would not be significantly affected by the re-routing of local roads as a result of the Proposed Action; and the interruption of traffic on those roads would be minimal, and normal transportation patterns would resume when the relocation of the roads is completed. New and proposed construction and improvements for north-south transportation corridors in Baldwin County would result in additional development and loss of habitat, as well as improved traffic flow; but the Proposed Action will have been completed by the time the proposed transportation projects are constructed, and the new construction would be planned to avoid the expanded NOLFs. Therefore, there would be no significant cumulative impacts on transportation.

Since no cultural resource impacts are involved with the Proposed Action, no cumulative cultural resource impacts would occur, when considered with other impacts of past and proposed actions in the Baldwin County area.

5.4 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS

Any construction and extension of new runways and clear zones in support of the T-6 aircraft deployment at NASWF would require the commitment of various resources. Those resources would include the commitment of labor, capital, energy, biological resources, building materials, and land resources. Short-term commitments of labor, capital, and fossil fuels would result directly from construction and indirectly from the services necessary at the construction sites. Since the proposed use of the land is for a military installation, the commitment of land resources is long-term. Once any construction, renovation, or maintenance as a result of the Proposed Action has been accomplished, there would be an irreversible and irretrievable commitment of those resources required for construction.

SECTION 6.0
PLANS, PERMITS, AND MITIGATION MEASURES



6.0 PLANS, PERMITS, AND MITIGATION MEASURES

The following is a list of plans, permits, and mitigation measures associated with the Proposed Action. The need for these requirements was developed through cooperation between the proponent and interested parties involved in the Proposed Action. These requirements are considered part of the Proposed Action, and would be implemented through the Proposed Action project's initiation. The proponent is responsible for adherence to and coordination with the listed entities to complete the plans, permits, and environmental design measures.

6.1 PLANS

- SWPPP – A SWPPP is required for land disturbance greater than 5 acres, as part of the Alabama NPDES storm water permit.

6.2 PERMITS

- General permit for storm water discharge from construction activities (NPDES).
- CWA Section 404 permit and Section 401 water quality certification for dredge and fill activities within waters of the U.S or wetlands.

6.3 ENVIRONMENTAL DESIGN MEASURES

6.3.1 Soils

Soil erosion control can be greatly enhanced with the use of BMPs, which are designed to reduce the impacts of non-point source pollution during construction and maintenance activities. BMPs include such things as buffers around water bodies to reduce the risk of siltation, and placement of culverts where streams need to be traversed. BMPs will greatly reduce the amount of soil lost to runoff during heavy rain events and ensure the integrity of the construction site. Revegetation of temporarily disturbed construction areas will be needed to ensure long-term recovery of the area and to prevent significant soil erosion problems. In accordance with EO 13112, native seeds and plants will be used for revegetation to assist in the conservation and enhancement of native wildlife and minimize the spread of invasive plant species.

6.3.2 Water Resources

Stormwater is managed at the NASWF complex according to the 2000 SWPPP. The SWPPP is required by the Installation's NPDES stormwater permit. Because the NASWF SWPPP does not apply to the NOLFs, a SWPPP will also be developed for the extension of runways and leveling and clearing of Type I Clear Zones. Vegetated drainage swales or other features will be constructed to reduce potential impacts on surface waters.

6.3.3 Biological Resources

The Migratory Bird Treaty Act requires that Federal agencies coordinate with the USFWS if construction activity would result in the "take" of a migratory bird. If construction or clearing activities are scheduled during the breeding season (typically February 15 through August 31), surveys will be performed to identify active nests. If construction activities will result in the "take" of a migratory bird, coordination with the USFWS and the ADCNR will be conducted, and applicable permits will be obtained prior to construction or clearing activities. Another mitigation measure that would be considered is to schedule all construction activities outside the nesting season, thus, negating the requirement for nesting bird surveys.

The U.S. Navy forestry fund will be reimbursed for the removal of any trees from NASWF property. If any timber is harvested for the project, the Natural Resources Department will conduct a timber estimate, and the contractor will pay the Navy Forestry Account fair market value for the timber. The timber will then become the property of the contractor for his disposal.

6.3.4 Cultural Resources

Coordination with the SHPO (Alabama Historical Commission) and interested Native American Tribes would be conducted as part of the NHPA Section 106 process, and would include the completion and submittal of any final survey reports required. A letter agreement would be initiated between NASWF and the SHPO to ensure that the consultation and coordination required under the NHPA would be completed. If cultural deposits are discovered during ground disturbing activities, all work will halt in the affected area, and additional coordination with the SHPO will be conducted.

6.3.5 Air Quality

Impacts on air quality are expected to be minimal. As a result, no mitigation is required. The implementation of BMPs to minimize fugitive dust emissions is recommended. As previously

indicated, grading activities associated with the construction phase create the majority of these emissions. The emissions produced will be on a temporary basis and will create an elevated short-term PM-10 concentration, which will fall off rapidly with distance from the source. Therefore, it is anticipated that the effects on overall air quality would be minor. In order to further minimize the potential impact on air quality, reasonable precautions, such as wetting disturbed soil to reduce dust and sequential scheduling of ground disturbance to minimize exposed soil, will be taken to reduce the emission of unconfined particulate matter. All construction equipment will be kept in good operating condition to minimize exhaust emissions.

6.3.6 Noise

No additional noise impacts would result from aircraft operations, and current noise impacts around the affected NOLFs could be reduced from current T-34 impacts. Based on noise modeling completed, no mitigation would be necessary for noise impacts from T-6 operations.

6.3.7 Socioeconomics

Private property acquired by the Navy would be purchased at fair market value, and resident relocation would be accomplished according to the Uniform Relocation Assistance & Real Property Acquisition Policies Act of 1970 (as amended - 1987), Public Law 91-646. The following is a summary of actions required under the Act.

- Public Law 91-646 provides for fair and equitable treatment of persons whose property will be acquired or who will be displaced because of programs or projects financed with Federal funds.
- Eligibility
- Own and occupy 180 days prior to offer (90 days for tenants)
- Purchase and occupy decent, safe and sanitary (DSS) dwelling within 1 year
- File claim within 18 months
- Homeowners Relocation Benefits
- Moving costs (actual or fixed)
- Replacement Housing Payment
 - Price Differential
 - Increased Mortgage Interest Cost
 - Incidental Expenses
- Comparable Replacement Dwelling
- Functionally equivalent

- Decent, safe and sanitary
- Adequate size
- Similar proximity to public services and employment
- Site typical in size for neighborhood
- Currently available
- Within financial means
- Tenants
 - Moving Costs (actual or fixed)
 - Rental Assistance or
 - Down Payment Assistance
- Appraisal
- Appraisal determines market value of property and is based on existing, verified market data within local area
- Appraisals are prepared by an Independent Contract Appraiser, reviewed and approved by Navy Appraiser

6.3.8 Transportation

Minimal traffic interruptions would be ensured by completing construction of new road alignments prior to relocating existing roads. Traffic flow and speed limits would be maintained by relocating roads to the same level of service after construction.

6.3.9 Solid and Hazardous Wastes

To minimize potential impacts from solid and hazardous materials during construction, all fuels, waste oils and solvents will continue to be properly collected and stored in tanks or drums, as appropriate. All vehicles will have drip pans during storage to contain minor spills and drips. Although it would be unlikely for a major spill to occur, any spill will be contained immediately with the application of an absorbent material (e.g., granular, pillow, sock). Any spill will be reported immediately to the on-site environmental personnel, who will notify appropriate Federal and state agencies. A designated environmental advisor will be on-site during construction activities in case of such accidents.

All used oil and solvents will continue to be recycled, if possible. All non-recyclable hazardous and regulated wastes will continue to be collected, characterized, labeled, stored, transported,

and disposed of in accordance with all Federal, state, and local regulations, including proper waste manifesting procedures.

An ECP report will be prepared for each private property parcel prior to purchase by the Navy, and any necessary corrective actions identified in the ECP reports will be accomplished.

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SECTION 7.0
LIST OF PREPARERS



7.0 LIST OF PREPARERS

Name	Agency or Organization	Area of Responsibility	Years of Experience	EA Project Responsibility
Steve Oivanki	GSRC	Project Manager	20	EA Project Manager
Sean Heath	NAVFAC-SE	Technical Project Manager	8	Biology – EA Technical Project Manager
Randy Roy	NASWF	Operational Liaison Officer	25	Public information, outreach and coordination
CAPT James Vandiver	NASWF	TW-5 Deputy Commodore	25	Air operations training requirements
LCDR Leaf Ballast	NAVFAC	NASWF Public Works Officer	20	Public works and NOLF construction and maintenance
LCDR David Hoten	NASWF	TW-5 Transition Team	20	T-34 to T-6 transition requirements
LCDR David Persky	NASWF	TW-5 Transition Team	17	T-34 to T-6 transition requirements
CDR Mark Kekeisen	NASWF	TW-5 Future Operations Officer	17	T-34 to T-6 transition requirements
CDR Thomas Vinson	NASWF	Air Operations Officer	20	Air operations requirements
Bob Asmus	NASWF	Assistant Air Operations Officer	30	Air operations requirements
James Holland	NAVFAC	Civil Engineer	25	NASWF Public Works and airfield construction and maintenance
Ron Joyner	NAVFAC	Facilities Planning	15	NASWF facilities planning and design
Danny Cook	NAVFAC	Assistant Public Works Officer	34	NASWF Public Works
Larry Fischer	NAVFAC	Real Estate Officer	15	Real estate actions and requirements
Shanna McCarty	GSRC	Socioeconomics	3	Natural resources and socioeconomic research
Sharon Newman	GSRC	GIS and graphics	14	GIS analysis and graphics preparation
Bretton Somers	GSRC	Cultural Resources	9	Archaeological research and documentation
Steve Kolian	GSRC	Air quality, Noise	12	Natural resources, noise and air impacts analysis
Carmen Ward	SAIC	Aircraft noise modeling	18	T-6 alternatives noise and airspace analysis
Greg Lacy	GSRC	Biological surveys, wetlands	10	NEPA and natural resources
Maria Reid	GSRC	Biological surveys, wetlands	6	NEPA and natural resources
Eric Webb	GSRC	Technical review	17	Natural resources and NEPA review
Chris Ingram	GSRC	Technical Review	33	Natural resources and NEPA review

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SECTION 8.0
LIST OF CONTACTS



8.0 LIST OF CONTACTS

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SECTION 9.0
REFERENCES AND APPLICABLE DOCUMENTS



9.0 REFERENCES AND APPLICABLE DOCUMENTS

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SECTION 10.0
ACRONYMS/ABBREVIATIONS

10.0 ACRONYMS/ABBREVIATIONS

ACHP – Advisory Council on Historic Preservation
ACMP – Alabama Coastal Management Program
ADCNR – Alabama Department of Conservation and Natural Resources
ADEM – Alabama Department of Environmental Management
ADOT – Alabama Department of Transportation
AFB – Air Force Base
AICUZ – Air Installation Compatible Use Zone
APZ – Accident Potential Zone
ATC – Air Training Command
BMP – Best Management Practice
BRAC – Base Closure and Realignment Commission
CAA – Clean Air Act
CEQ – Council on Environmental Quality
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
CFR – Code of Federal Regulations
CHRIMP – Consolidated Hazardous Material Reutilization and Inventory Management Program
CNATRA – Chief of Naval Air Training
CO – Carbon Monoxide
CWA – Clean Water Act
CZMA – Coastal Zone Management Act
dB – Decibels
dBA – A-weighted Sound Level
DNL – Day-Night Average Sound Level
DoD – Department of Defense
DoN – Department of the Navy
E – Endangered
EA – Environmental Assessment
EBS – Environmental Baseline survey
EO – Executive Order
FCMP – Florida Coastal Management Program
FEMA – Federal Emergency Management Agency
FHWA – Federal Highway Administration
FNAI – Florida Natural Areas Inventory
FONSI – Finding of No Significant Impact
FPPA – Farmland Protection Policy Act
GA – General Aviation
GPD – Gallons per Day
GSRC – Gulf South Research Corporation
HUD – Housing and Urban Development (Department of)
HWMP – Hazardous Waste Management Plan
ICRMP – Integrated Cultural Resources Management Plan
INRMP – Integrated Natural Resources Management Plan
IRP – Installation Restoration Plan
JPATS – Joint Primary Aircraft Training System
JSF – Joint Strike Fighter
L_{dn} – day-night average sound level
MOA – Military Operating Area
NL – Not Listed

NAAQS – National Ambient Air Quality Standards
NAS – Naval Air Station
NASWF – NAS Whiting Field
NAVFAC – Naval Facilities Engineering Command
NAVSUP – Naval Supply Systems Command
NEPA – National Environmental Policy Act
NHPA – National Historic Preservation Act
NMFS – National Marine Fisheries Service
NO_x – Nitrogen Oxides
NOAA – National Oceanic and Atmospheric Administration
NOLF – Navy Outlying Landing Field
NPDES – National Pollution Discharge Elimination System
NRCS – Natural Resources Conservation Service
NRCP – National Register of Historic Places
O₃ – Ozone
OPNAVINST – Chief of Naval Operations Instruction
OSHA – Occupational Safety and Health Administration
PA – Programmatic Agreement
Pb – Lead
PL – Public Law
PM-2.5 – Particulate Matter less than 2.5 Microns
PM-10 – Particulate Matter less than 10 Microns
POL – Petroleum, Oil, and Lubricants
PPEL – Practice Precautionary Emergency Landing
PSD – Prevention of Significant Deterioration
PTE – Potential-to-Emit
RNAV – Area Navigation
ROI – Region of Influence
ROW – Right of Way
SHPO – State Historical Preservation Officer
SO₂ – Sulfur Dioxides
SPCCP – Spill Prevention, Control, and Countermeasures Plan
SR – State Route
SRC – Santa Rosa County
SSC – Species of Special Concern
SWPPP – Stormwater Pollution Prevention Plan
TACAN – TACTical Air Navigation
TRSA – Terminal Radar Service Area
TW-5 – Training Air Wing Five
UFC – Unified Facilities Criteria
U.S. – United States
USACE – United States Army Corps of Engineers
USAF – U.S. Air Force
USC – United States Code
USEPA – United States Environmental Protection Agency
USFWS – United States Fish and Wildlife Service
°F – Degrees Fahrenheit

APPENDIX A
State of Alabama Species of Concern

Definition of Heritage Ranks

The Alabama Natural Heritage Program uses the Heritage ranking system developed by The Nature Conservancy. Each species is assigned two ranks; one representing its range-wide or global status (G rank), and one representing its status in the state (S rank). Species with a rank of 1 are most critically imperiled; those with a rank of 5 are most secure.

Global Ranking System

G1 Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

G2 Imperiled – At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

G3 Vulnerable – At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.

G4 Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.

G5 Secure – Common; widespread and abundant.
GX Presumed Extinct (species) – Not located despite intensive searches and virtually no likelihood of rediscovery.

Eliminated (ecological communities) – Eliminated throughout its range, with no restoration potential due to extinction of dominant or characteristic species.

GH Of historical occurrence throughout its range.
Possibly Extinct (species) – Missing; known from only historical occurrences but still some hope of rediscovery.

Presumed Eliminated – (Historic, ecological communities)-Presumed eliminated throughout its range, with no or virtually no likelihood that it will be rediscovered, but with the potential for restoration, for example, American Chestnut Forest.

GU Unrankable – Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.

GNR Not ranked to date.

G#T# Intraspecific Taxon (trinomial) – The status of infraspecific taxa (subspecies or varieties) are indicated by a "T-rank" following the species' global rank. Rules for assigning T-ranks follow the same principles outlined above for global conservation status ranks. A T-rank cannot imply the subspecies or variety is more abundant than the species as a whole-for example, a G1T2 cannot occur. At this time, the T rank is not used for ecological communities.

State Ranking System

S1 Critically imperiled in Alabama because of extreme rarity (5 or fewer occurrences of very few remaining individuals or acres) or because of some factor(s) making it especially vulnerable to extirpation from Alabama.

S2 Imperiled in state because of rarity (6 to 20 occurrences or few remaining individuals or acres) or because of some factor(s) making it very vulnerable to extirpation from Alabama.

S3 Rare or uncommon in Alabama (on the order of 21 to 100 occurrences).

S4 Apparently secure in Alabama, with many occurrences.

S5 Demonstrably secure in Alabama and essentially "ineradicable" under present conditions.

SX Presumed Extirpated – Species or community is believed to be extirpated from Alabama. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.

SH Historical (Possibly Extirpated) – Species or community occurred historically in Alabama, and there is some possibility that it may be rediscovered. Its presence may not have been verified in the past 20-40 years. A species or community could become SH without such a 20-40 year delay if the only known occurrences in a nation or state/province were destroyed or if it had been extensively and unsuccessfully looked for. The SH rank is reserved for species or communities for which some effort has been made to relocate occurrences, rather than simply using this status for all elements not known from verified extant occurrences.

SNR Unranked – State conservation status not yet assessed.

SA Accidental in Alabama, including species (usually birds or butterflies) recorded once or twice or only at very great intervals, hundreds or even thousands of miles outside their usual range; a few of these species may even have bred on the one or two occasions they were recorded.

SU Unrankable – Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.

SE An exotic established in Alabama.

Variant Ranks and Rank Modifiers

G#G# Range Rank – A numeric range rank (e.g., G2G3) is used to indicate the range of uncertainty in the status of a species or community (e.g., an element may be given a G-rank of G2G3, indicating global status is somewhere between imperiled and vulnerable). Ranges cannot skip more than one rank (e.g., GU should be used rather than G1G4). Also applies to state ranks (e.g., S2S3)

HYB Hybrid

Q Questionable taxonomy – Taxonomic distinctiveness of this entity at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, or the inclusion of this taxon in another taxon, with the resulting taxon having a lower-priority conservation priority.

? Inexact Numeric Rank – Denotes inexact numeric rank (e.g., G2?)

Special State Ranking for Migrants

SB Regularly occurring, migratory and present only during the breeding season. A rank of S3B indicates a species uncommon during the breeding season (spring/summer) in Alabama.

SN Regularly occurring, usually migratory and typically non-breeding species in Alabama; this category includes migratory birds, bats, sea turtles, and cetaceans which do not breed in Alabama but pass through twice a year or may remain in winter. A rank of S2B,S5N indicated a rare breeder but a common winter resident.

Note: Species that have resident breeding populations that are augmented in winter by non-breeding migrants may have dual ranks, one each for the breeding (B) and non-breeding (N) components.

Rare, Threatened, & Endangered Species & Natural Communities Documented in Baldwin County, Alabama

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status	State Priority ¹
<u>Amphibians</u>						
<i>Ambystoma bishopi</i>	Reticulated Flatwoods Salamander ⁴	G2G3	S1	LT	SP	P1
<i>Amphiuma means</i>	Two-toed Amphiuma	G5	S3			
<i>Amphiuma pholeter</i>	One-toed Amphiuma	G3	S1			P2
<i>Desmognathus auriculatus</i>	Southern Dusky Salamander	G5	S2			
<i>Rana capito</i>	Gopher Frog	G3	S2			
<i>Rana heckscheri</i>	River Frog ⁵	G5	S1			
<i>Siren lacertina</i>	Greater Siren	G5	S3			
<u>Birds</u>						
<i>Aimophila aestivalis</i>	Bachman's Sparrow ⁵	G3	S3			P2
<i>Ammodramus henslowii</i>	Henslow's Sparrow	G4	S2N			P1
<i>Ammodramus maritimus fisheri</i>	Louisiana Seaside Sparrow	G4T4	S3			P2
<i>Ammodramus nelsoni</i>	Nelson's Sharp-tailed Sparrow	G5	S3N			P2
<i>Anas fulvigula</i>	Mottled Duck	G4	S2N,S3B			
<i>Charadrius alexandrinus</i>	Southeastern Snowy Plover	G4T3Q	S1B,S2N		SP	P1
<i>Charadrius alexandrinus</i>	Snowy Plover	G4	S1B,S2N		SP	P1
<i>Charadrius melodus</i>	Piping Plover	G3	S1N	LE, LT ⁶	SP	P1
<i>Coturnicops noveboracensis</i>	Yellow Rail	G4	S2N			P2
<i>Egretta rufescens</i>	Reddish Egret	G4	S1B,S3N		SP	P2
<i>Elanoides forficatus</i>	Swallow-tailed Kite	G5	S2			P2
<i>Grus canadensis pulla</i>	Mississippi Sandhill Crane ⁵	G5T1	SH	LE	SP	
<i>Haliaeetus leucocephalus</i>	Bald Eagle	G5	S3B	BGEPA ⁷	SP	
<i>Ictinia mississippiensis</i>	Mississippi Kite	G5	S3			
<i>Ixobrychus exilis</i>	Least Bittern	G5	S2N,S4B			P2
<i>Laterallus jamaicensis</i>	Black Rail	G4	S2N			P2
<i>Mycteria americana</i>	Wood Stork ³	G4	S2N	LE ⁸	SP	P2
<i>Picoides borealis</i>	Red-cockaded Woodpecker	G3	S2	LE	SP	P1
<i>Sternula antillarum</i>	Least Tern	G4	S2B,S4N	PS:LE ⁹		
<u>Crustaceans</u>						
<i>Camabarus acanthura</i>	Thornytail Crayfish ⁵	G4G5	S3			
<i>Cambarus lesliei</i>	Angular Dwarf Crayfish ⁵	G3	S3			P2
<i>Cambarus miltus</i>	Rusty Grave Digger	G1G2	S1			P2
<i>Fallicambarus burrisi</i>	Burrowing Bog Crayfish ⁵	G3	S1			P2
<i>Fallicambarus byersi</i>	Lavender Burrowing Crayfish ⁵	G4	S2			
<i>Fallicambarus fodiens</i>	Digger Crayfish ⁵	G5	S3			
<i>Fallicambarus oryctes</i>	Flatwoods Digger ⁵	G4	S1			P2
<i>Orconectes lancifer</i>	Shrimp Crayfish ⁵	G5	S1			
<i>Procambarus bivittatus</i>	Ribbon Crayfish ⁵	G5	S3S4			
<i>Procambarus escambiensis</i>	Escambia Crayfish ⁵	G2	S1			P2
<i>Procambarus evermanni</i>	Panhandle Crayfish	G4	S3			
<i>Procambarus lagniappe</i>	Lagniappe Crayfish	G2	S1			P2
<i>Procambarus shermani</i>	Gulg Crayfish ⁵	G4	S2			
<u>Fish</u>						
<i>Acipenser fulvescens</i>	Lake Sturgeon ⁵	G3G4	SX		SP	SX

<i>Acipenser oxyrinchus desotoi</i>	Gulf Sturgeon ³	G3T2	S1	LT	SP	P2
<i>Ammocrypta bifascia</i>	Florida Sand Darter	G4	S3			
<i>Atractosteus spatula</i>	Alligator Gar	G3G4	S2			
<i>Crystallaria asprella</i>	Crystal Darter	G3	S3		SP	
<i>Cycleptus elongatus</i>	Blue Sucker	G3G4	S2S3			
<i>Cycleptus meridionalis</i>	Southeastern Blue Sucker	G3G4	S3			
<i>Elassoma evergladei</i>	Everglades Pygmy Sunfish	G5	S3			
<i>Enneacanthus gloriosus</i>	Bluespotted Sunfish	G5	S3			
<i>Enneacanthus obesus</i>	Banded Sunfish	G5	S1			
<i>Etheostoma fusiforme</i>	Swamp Darter	G5	S3			
<i>Fundulus blaire</i>	Western Starhead Topminnow	G4	S3			
<i>Fundulus chrysotus</i>	Golden Topminnow	G5	S3			
<i>Fundulus cingulatus</i>	Banded Topminnow	G4	S2			
<i>Fundulus confluentus</i>	Marsh Killifish	G5	S2			
<i>Fundulus escambia</i>	Russetfin Topminnow	G4	S3			
<i>Fundulus jenkinsi</i>	Saltmarsh Topminnow	G3	S1	SC ¹⁰		
<i>Fundulus pulvereus</i>	Bayou Killifish	G5	S2			
<i>Heterandria formosa</i>	Least Killifish	G5	S3			
<i>Hiodon tergisus</i>	Mooneye	G5	S3S4			
<i>Hybognathus nuchalis</i>	Mississippi Silvery Minnow	G5	S4			
<i>Leptolucania ommata</i>	Pygmy Killifish	G5	S1			
<i>Lucania parva</i>	Rainwater Killifish	G5	S3			
<i>Lythrurus roseipinnis</i>	Cherryfin Shiner	G5	S2			
<i>Noturus mocturnus</i>	Freckled Madtom	G5	S3			
<i>Notropis chalybaeus</i>	Ironcolor Shiner ⁵	G4	SH		SP	P1
<i>Notropis maculatus</i>	Taillight Shiner	G5	S3			
<i>Notropis melanostomus</i>	Blackmouth Shiner	G2	S1			
<i>Notropis petersoni</i>	Coastal Shiner	G5	S2			
<i>Perca flavescens</i>	Yellow Perch	G5	S3			
<i>Percina lenticula</i>	Freckled Darter	G2	S2S3			
<i>Percina suttkusi</i>	Gulf Logperch	G5	S3			
<i>Poecilia latipinna</i>	Sailfin Molly	G5	S2			
<i>Polyodon spathula</i>	Paddlefish	G4	S3		SP ¹¹	
<i>Pteronotropsis signipinnis</i>	Flagfin Shiner	G5	S3			
<i>Scaphirhynchus suttkusi</i>	Alabama Sturgeon	G1	S1	LE	SP	P1

Insects

<i>Ceraclea resurgens</i>	Caddisfly	G5	S1			
<i>Chimarra ferculata</i>	Caddisfly	G4	S1			
<i>Hydropsyche decalda</i>	Caddisfly	G4G5	S1			
<i>Hydroptila scheiringi</i>	A Caddisfly	G1G2	S1			
<i>Micrasema sp. 1</i>	Undescribed Caddisfly	G2	S2			
<i>Neotrichia mobilensis</i>	Caddisfly	G1G2	S1S2			
<i>Nyctiophylax morsei</i>	Caddisfly	G2	S1			
<i>Orthotrichia instabilis</i>	Changeable Orthotrichian Microcaddisfly	G3	S1			
<i>Oxyethira anabola</i>	Caddisfly	G4G5	S1			
<i>Oxyethira lumipollex</i>	Caddisfly	G2	S2			
<i>Oxyethira sininsigne</i>	Caddisfly	G3G4	S1			
<i>Phylocentropus harrisi</i>	Caddisfly	G1G2	S1S2			
<i>Polycentropus clinei</i>	A Caddisfly	G5	SNR			
<i>Polycentropus floridensis</i>	Florida Brown Checkered Summer Sedge	G2	SNR			

<i>Trienodes sp. 1</i>	Undescribed Caddisfly	G1	S1				
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Mammals

<i>Peromyscus polionotus ammobates</i>	Alabama Beach Mouse ²	G5T1	S1	LE	SP	P1
<i>Peromyscus polionotus trissyllepsis</i>	Perdido Key Beach Mouse	G5T1	S1	LE	SP	P1
<i>Sylvilagus palustris</i>	Marsh Rabbit ¹²	G5T2	S3			P2
<i>Trichechus manatus</i>	West Indian Manatee	G2	S1	LE	SP	P1
<i>Trichechus manatus</i>	West Indian Manatee	G2G3	S1	LE	SP	P1
<i>Ursus americanus</i>	Black Bear	G5T2	S2			P1

Mussels

<i>Elliptio crassidens</i>	Elephant-ear	G5	S5			
<i>Fusconaia ebena</i>	Ebonyshell	G4G5	S5			
<i>Glebula rotundata</i>	Round Pearlshell	G4G5	S3			
<i>Lampsilis teres</i>	Yellow Sandshell	G5	S5			
<i>Leptodea fragilis</i>	Fragile Papershell	G5	S5			
<i>Plectomerus dombeyanus</i>	Bankclimber	G5	S4			
<i>Pleurobema taitianum</i>	Heavy Pigtoe ³	G1	S1	LE	SP	P1
<i>Potamilus inflatus</i>	Alabama Heelsplitter ³	G1G2Q	S1	LT	SP	P1
<i>Potamilus purpuratus</i>	Bleufer	G5	S5			
<i>Quadrula apiculata</i>	Southern Mapleleaf	G5	S5			
<i>Quadrula asperata</i>	Alabama Orb	G4	S4			

Natural Communities

<i>(Stillingia aquatica) / Panicum tenerum - Dichanthelium erectifolium Herbaceous Vegetation</i>	(corkwood) / Southeastern Panicgrass - Erectleaf Witchgrass Herbaceous Vegetation	G2?	SNR			
<i>Aristida beyrichiana - Rhynchospora oligantha - Carphophorus pseudoliatris - Sarracenia (alata, flava, leucophylla) Herbaceous Vegetation</i>	Slash Pine Seep, Coastal Plain Pitcher Plant Flat	G2	S2			
<i>Aristida beyrichiana - Rhynchospora oligantha - Panicum nudicaule - (Eurybia eryngiifolia) Herbaceous Vegetation</i>	East Gulf Coastal Plain Seepage Bog (upper Terrace Type)	G2	S2			
<i>Baccharis halimifolia - Iva frutescens - Morella cerifera - (Ilex vomitoria) Shrubland</i>	Coastal Salt Shrub Thicket	G4?	SNR			
<i>Chamaecyparis thyoides / Magnolia virginiana - Cliftonia monophylla / Orontium aquaticum - Sphagnum spp. Forest</i>	Gulf Coastal Plain Streamside White-cedar Swamp	G2G3	S1			
<i>Cladium mariscus ssp. jamaicense - Woodwardia virginica Herbaceous Vegetation</i>	Sawgrass Head	G2?	SNR			
<i>Eleocharis (elongata, equisetoides) - Rhynchospora tracyi Semipermanently Flooded Herbaceous Vegetation</i>	Coastal Plain Spikerush - Beaksedge Wetland	G3?	SNR			
<i>Eleocharis elongata - Panicum tenerum - Nymphaea odorata Herbaceous Vegetation</i>	Gulf Coast Spikerush Interdune Swale	G2?	SNR			
<i>Hypericum reductum - Licania michauxii / Andropogon capillipes - Polygonella gracilis - Xyris caroliniana Dwarf-shrubland</i>	East Gulf Coastal Plain Dwarf Shrubland	G2	SNR			
<i>Ilex vomitoria - Quercus (geminata, virginiana) - Morella cerifera - Serenoa repens Shrubland</i>	Gulf Coast Dune Oak - Yaupon Scrub	G2G3	SNR			
<i>Juncus roemerianus - Herbaceous Vegetation</i>	Needlerush High Marsh	G5	S2S3			
<i>Magnolia virginiana - Nyssa biflora / Carpinus caroliniana / Thelypteris noveboracensis - Athyrium filix-femina Forest</i>	Atlantic/east Gulf Coastal Plain Sweetbay - Blackgum Streamhead Forest	G3G4	S2			
<i>Nelumbo lutea Herbaceous Vegetation</i>	American Lotus Aquatic Wetland	G4?	SNR			
<i>Nyssa biflora / Itea virginica - Cephalanthus</i>	Swamp Blackgum Depression Forest	G3G4	S1			

<i>occidentalis Depression Forest</i>					
<i>Panicum virgatum</i> - (<i>Cladium mariscus</i> ssp. <i>jamaicense</i> , <i>Juncus roemerianus</i>) Herbaceous Vegetation	Southern Switchgrass Tidal Fringe Grassland	G3?	S1		
<i>Pinus (palustris, elliotii</i> var. <i>elliotii</i>) / (<i>Quercus geminata</i>) / <i>Serenoa repens</i> / <i>Aristida beyrichiana</i> Woodland	Longleaf/slash Pine Scrubby Flatwoods	G3?	S3		
<i>Pinus clausa</i> / <i>Quercus geminata</i> - <i>Quercus myrtifolia</i> - <i>Conradina canescens</i> Woodland	Panhandle Sand Pine Dune Scrub	G1	S1		
<i>Pinus elliotii</i> var. <i>elliotii</i> / <i>Ilex vomitoria</i> - <i>Serenoa repens</i> - <i>Morella cerifera</i> Woodland	Maritime Slash Pine Upland Flatwoods	G2G3	SNR		
<i>Pinus elliotii</i> var. <i>elliotii</i> / <i>Spartina patens</i> - <i>Juncus roemerianus</i> - (<i>Panicum virgatum</i>) Woodland	Slash Pine / Saltmeadow Cordgrass - Black Needlerush - (switchgrass) Woodland	G3?	SNR		
<i>Pinus palustris</i> - (<i>Pinus elliotii</i> var. <i>elliotii</i>)/ <i>Ctenium aromaticum</i> - <i>Carphephorus pseudoliatris</i> - (<i>Sarracenia alata</i>) Woodland	East Gulf Coastal Plain Wet Longleaf Pine Savanna	G3?	S2		
<i>Pinus palustris</i> / <i>Quercus laevis</i> / <i>Aristida beyrichiana</i> - <i>Pityopsis aspera</i> Woodland	Longleaf Pine / Turkey Oak Woodland	G3	S2		
<i>Pinus palustris</i> / <i>Quercus marilandica</i> / <i>Schizachyrium scoparium</i> - <i>Schizachyrium tenerum</i> - <i>Rhexia alifanus</i> Woodland	Mississippi Loam Hills Longleaf Forest	G2G3	S1		
<i>Quercus laurifolia</i> - <i>Fraxinus pennsylvanica</i> - <i>Nyssa aquatica</i> / <i>Sabal minor</i> Tidal Forest	Northern Gulf Tidal Laurel Oak - Ash - Tupelo Forest	G3?	S3		
<i>Quercus lyrata</i> - <i>Carya aquatica</i> Forest	Overcup Oak - Water Hickory Bottomland Forest	G4G5	SNR		
<i>Quercus myrtifolia</i> - <i>Quercus geminata</i> - <i>Ceratiola ericoides</i> - <i>Conradina canescens</i> Shrubland	Florida Panhandle Coastal Scrub Oak Stands	G2	SNR		
<i>Quercus texana</i> - <i>Celtis laevigata</i> - <i>Ulmus (americana, crassifolia)</i> - (<i>Gleditsia triacanthos</i>) Forest	Nuttall Oak - Sugarberry Bottomland Forest	G4G5	SNR		
<i>Quercus virginiana</i> - (<i>Pinus elliotii</i> var. <i>elliotii</i> , <i>Sabal palmetto</i>) / <i>Persea borbonia</i> - <i>Callicarpa americana</i> Forest	Maritime Live Oak Hammock	G2	SNR		
<i>Quercus virginiana</i> - (<i>Pinus taeda</i>) / (<i>Sabal minor, Serenoa repens</i>) Forest	Outer Coastal Plain Live Oak Levee Forest	G3G4	SNR		
<i>Rhynchospora macra</i> - <i>Rhynchospora stenophylla</i> - <i>Panicum nudicaule</i> - <i>Xyris chapmanii</i> - <i>Carex exilis herbaceous</i> Vegetation	East Gulf Coastal Plain Muck Bog	G1	S1		
<i>Schizachyrium maritimum</i> - (<i>Heterotheca subaxillaris</i>) Herbaceous Vegetation	Gulf Of Mexico Dune Grassland	G2	S1		
<i>Sesuvium portulacastrum</i> - <i>Atriplex</i> spp. - <i>Suaeda</i> spp. Sparse Vegetation	Coastal Bay Shore / Succulent Beach	G3	SNR		
<i>Spartina alterniflora</i> - <i>Juncus roemerianus</i> - <i>Distichlis spicata</i> Louisianian Zone Salt Tidal Herbaceous Vegetation	Gulf Coast Cordgrass Salt Marsh	G5	S2S3		
<i>Spartina patens</i> - <i>Setaria parviflora</i> - <i>Hydrocotyle bonariensis</i> Herbaceous Vegetation	Saltmeadow Cordgrass - Yellow Foxtail Grass - Beach Pennywort Herbaceous Vegetation	G3	SNR		
<i>Taxodium ascendens</i> - <i>Cliftonia monophylla</i> - <i>Pinus elliotii</i> var. <i>elliotii</i> - <i>Chamaecyparis thyoides</i> / <i>Hypericum nitidum</i> - <i>Cladium mariscus</i> ssp. <i>jamaic</i>	Northern Gulf Tidal Pond-cypress Forest	G2?	S1		
<i>Taxodium ascendens</i> / <i>Ilex myrtifolia</i> Depression Forest	Pond-cypress / Myrtle Dahoon Depression Forest	G3?	S1S2		
<i>Taxodium ascendens</i> / <i>Magnolia virginiana</i> / <i>Cladium mariscus</i> ssp. <i>jamaicense</i> Forest	Gulf Coast Pond-cypress Dune Swale	G1	S1		
<i>Taxodium distichum</i> - <i>Nyssa aquatica</i> / <i>Fraxinus</i>	Cypress - Tupelo Semipermanently Flooded	G5	S2S3		

<i>caroliniana</i> Forest	Brownwater Swamp					
<i>Uniola paniculata</i> - <i>Panicum amarum</i> var. <i>amarulum</i> - <i>Iva imbricata</i> Herbaceous Vegetation	Northern Gulf Embryonic Beach Dune	G3	S1S2			

Reptiles

<i>Apalone ferox</i>	Florida Softshell	G5	S2		SP-P	
<i>Caretta caretta</i>	Loggerhead Sea Turtle	G3	S1	LT	SP	P1
<i>Chelonia mydas</i>	Green Sea Turtle ¹³	G3	S1	LE, LT ¹⁴	SP	P1
<i>Crotalus adamanteus</i>	Eastern Diamondback Rattlesnake	G4	S3			P2
<i>Dermochelys coriacea</i>	Leatherback Sea Turtle ¹⁵	G2	SNA	LE	SP	P1
<i>Drymarchon couperi</i>	Eastern Indigo Snake ¹⁶	G3	S1	LT	SP	P1, possibly extirpated
<i>Farancia erythrogramma</i>	Rainbow Snake	G4	S3			P1
<i>Gopherus polyphemus</i>	Gopher Tortoise	G3	S3	PS:LT ¹⁷	SP	P2
<i>Graptemys nigrinoda delticola</i>	Delta Map Turtle ²	G3T2Q	S2		SP	
<i>Graptemys pulchra</i>	Alabama Map Turtle	G4	S3		SP	
<i>Heterodon simus</i>	Southern Hognose Snake	G2	SH		SP	P1, possibly extirpated
<i>Lampropeltis calligaster rhombomaculata</i>	Mole Kingsnake	G5T5	S3			
<i>Lampropeltis getula getula</i>	Eastern Kingsnake	G5T5	S4			P2
<i>Lepidochelys kempii</i>	Kemp's Ridley Sea Turtle ³	G1	SNA	LE	SP	P1
<i>Macrochelys temminckii</i>	Alligator Snapping Turtle	G3G4	S3		SP	P2
<i>Malaclemys terrapin pileata</i>	Mississippi Diamondback Terrapin	G4T3Q	S2		SP	P2
<i>Micrurus fulvius</i>	Eastern Coral Snake	G5	S3			P2
<i>Nerodia clarkii clarkii</i>	Gulf Salt Marsh Snake	G4T4	S2		SP	
<i>Nerodia cyclopion</i>	Green Water Snake	G5	S2			
<i>Nerodia fasciata</i>	Southern Water Snake	G5	S4			
<i>Nerodia taxispilota</i>	Brown Water Snake	G5	S3			
<i>Ophisaurus mimicus</i>	Mimic Glass Lizard ⁵	G3	S2			P2
<i>Pituophis melanoleucus mugitus</i>	Florida Pine Snake	G4T3	S2		SP	P2
<i>Pseudemys alabamensis</i>	Alabama Redbelly Turtle	G1	S1	LE	SP	P1
<i>Rhadinaea flavilata</i>	Pine Woods Snake	G4	S2			

Vascular Plants

<i>Acorus calamus</i>	Sweetflag	G4?	S1			
<i>Agalinis aphylla</i>	Leafless False-foxglove	G3G4	S2			
<i>Agalinis linifolia</i>	Flax-leaf False-foxglove	G4?	S2			
<i>Agrimonia incisa</i>	Incised Groovebur	G3	S2			
<i>Aristida simpliciflora</i>	Southern Three-awned Grass	G3G4	S1			
<i>Arnoglossum sulcatum</i>	Indian-plantain	G3	S2S3			
<i>Botrychium jenmanii</i>	Alabama Grapefern	G3G4	S1			
<i>Bulbostylis warei</i>	Ware's Hairsedge	G3G4	SH			
<i>Burmanna capitata</i>	Bluethreads	G5	S2			
<i>Calopogon multiflorus</i>	Many-flowered Grass-pink	G2G3	S1			
<i>Canna flaccida</i>	Bandana-of-the-everglades	G4?	S1			
<i>Carex exilis</i>	Coast Sedge	G5	S1			
<i>Chrysopsis godfreyi</i>	Godfrey's Golden-aster	G2	S1			
<i>Cirsium lecontei</i>	Le Conte's Thistle	G2G3	S1			
<i>Cladium mariscoides</i>	Twig Rush	G5	S1			
<i>Coreopsis gladiata</i>	Southeastern Tickseed	G4G5	S2			
<i>Epidendrum conopseum</i>	Green-fly Orchid	G4	S2			
<i>Eriocaulon texense</i>	Texas Pipewort	G4	S2			
<i>Euphorbia discoidalis</i>	Euphorbia	G3?Q	S2?			

<i>Fothergilla gardenii</i>	Dwarf Witch-alder	G3G4	S1			
<i>Gordonia lasianthus</i>	Loblolly Bay	G5	S1			
<i>Habenaria quinqueseta</i> var. <i>quinqueseta</i>	Michaux Orchid	G4G5T4?	S1			
<i>Helenium brevifolium</i>	Little Leaf Sneezeweed	G4	S1			
<i>Helenium vernale</i>	Spring Sneezeweed	G4?	S2			
<i>Helianthemum arenicola</i>	Coastal-sand Frostweed	G3	S1			
<i>Hypericum reductum</i>	Atlantic St. John's-wort	G5	S2			
<i>Ilex amelanchier</i>	Serviceberry Holly	G4	S2			
<i>Kalmia hirsute</i>	Hairy Laurel	G5	S2			
<i>Lachnocaulon digynum</i>	Pineland Bogbutton	G3	S2			
<i>Liatris chapmanii</i>	Chapman's Gay-feather	G5	SH			
<i>Lilium iridollae</i>	Panhandle Lily	G2	S1			
<i>Lindera subcoriacea</i>	Bog Spicebush	G2G3	S1			
<i>Linum macrocarpum</i>	Flax	G2	S1			
<i>Lycopodiella cernua</i>	Nodding Clubmoss	G5	S1S2			
<i>Nuphar lutea</i> ssp. <i>ulvacea</i>	West Florida Cowlily	G5T2	S1			
<i>Panicum nudicaule</i>	Naked-stemmed Panic Grass	G3Q	S2			
<i>Peltandra sagittifolia</i>	Spoon-flower	G3G4	S2			
<i>Penstemon multiflorus</i>	Many-flower Beardtongue	G4	S1			
<i>Pinguicula planifolia</i>	Chapman's Butterwort	G3?	S1S2			
<i>Pinus clausa</i>	Sand Pine	G4	S2			
<i>Platanthera integra</i>	Yellow Fringeless Orchid	G3G4	S2			
<i>Pleea tenuifolia</i>	Rush False-asphodel	G4	S1S2			
<i>Polanisia tenuifolia</i>	Slenderleaf Clammy-weed	G5	S1			
<i>Polygala crenata</i>	Crenate Milkwort	G4?	S1			
<i>Polygala hookeri</i>	Hooker Milkwort	G3	S1S2			
<i>Polygonella macrophylla</i>	Large-leaved Jointweed	G3	S1			
<i>Ponthieva racemosa</i>	Shadow-witch Orchid	G4G5	S2			
<i>Potamogeton floridanus</i>	Florida Pondweed	G1	S1			
<i>Pteroglossaspis ecristata</i>	Crestless Eulophia	G2G3	S1			
<i>Quercus minima</i>	Dwarf Live Oak	G5	S2			
<i>Rhynchospora crinipes</i>	Hairy-peduncled Beakrush	G2	S1			
<i>Rhynchospora pleiantha</i>	Brown Beakrush	G3	S1			
<i>Rhynchospora stenophylla</i>	Chapman Beakrush	G4	S2			
<i>Rhynchospora tracyi</i>	Tracy's Beak Rush	G4	S1			
<i>Sabatia brevifolia</i>	Short-leaved Pink	G3G4	S1			
<i>Sageretia minutiflora</i>	Tiny-leaved Buckthorn	G4	S1			
<i>Sarracenia leucophylla</i>	Whitetop Pitcher-plant	G3	S3			
<i>Sarracenia rubra</i> ssp. <i>wherryi</i>	Wherry's Sweet Pitcher-plant	G4T3	S3			
<i>Schwalbea americana</i>	Chaffseed	G2G3	S1	LE		
<i>Selaginella ludoviciana</i>	Gulf Spike-moss	G3G4	S1S2			
<i>Sideroxylon thornei</i>	Swamp Buckthorn	G2	S1			
<i>Stilingia aquatica</i>	Water Toothleaf	G4G5	S1			
<i>Thalia dealbata</i>	Powdery Thalia	G4	S1			
<i>Utricularia inflata</i>	Swollen Bladderwort	G5	S1S2			
<i>Utricularia olivacea</i>	Dwarf Bladderwort	G4	S1			
<i>Vitis rotundifolia</i> var. <i>munsoniana</i>	Munson Grape	G5T4?	S1			
<i>Xyris chapmanii</i>	Chapman's Yellow-eyed Grass	G3	S1			
<i>Xyris drummondii</i>	Drummond's Yellow-eyed Grass	G3	S3			
<i>Xyris scabrifolia</i>	Harper's Yellow-eyed Grass	G3	S1S2			

¹ Priority as identified in the State Wildlife Action Plan and its list of Species of Greatest Conservation Concern (for more information on SWAP, see <http://www.outdooralabama.com/research-mgmt/swcs/>).

² Alabama endemic.

³ No occurrence record in ALNHP database but the US Fish & Wildlife Service (<http://www.fws.gov/daphne/es/specieslst.html#Baldwin>) lists this species as occurring in Baldwin County.

⁴ Historic occurrence, not documented in Alabama since 1981.

⁵ Historic occurrence.

⁶ Listed by USFWS as Endangered in Great Lakes watersheds of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin; Listed as Threatened elsewhere, including Alabama.

⁷ The Bald Eagle was removed from the Federal List of Endangered and Threatened Wildlife (delisted) June 2007, but is still protected by provisions of the Bald and Golden Eagle Protection Act. For further information and guidelines on bald eagle protocol, go to: <http://www.fws.gov/southeast/es/baldeagle/>

⁸ Listed by USFWS as Endangered in Alabama, Florida, Georgia, and South Carolina; not listed elsewhere.

⁹ *Sterna antillarum* subspecies complex; some subspecies are federally listed. Listed by USFWS as Endangered on the U.S. west coast (subspecies browni) and on interior U.S. rivers, except within 50 miles of the coast.

¹⁰ Listed as a species of concern by the National Marine Fisheries Service (Federal Register 69(73):19975-19979, available at <http://www.nmfs.noaa.gov/pr/pdfs/fr/fr64-19975.pdf>)

¹¹ *Polydon spathula* protected by Regulations 220-2-.94, page 63, and 220-2-.43, page 62, of the Alabama Regulations for 2007-2008 on Game, Fish, and Fur Bearing Animals.

¹² Historic occurrence, no recent information

¹³ Possible occurrence

¹⁴ Listed as Threatened throughout most of its range, including Alabama, except in Florida and Mexico where it is listed as Endangered.

¹⁵ Occasional visitor but not known to nest in state.

¹⁶ Historical occurrence. Potential to occur in county.

¹⁷ Listed by USFWS as Threatened west of the Mobile and Tombigbee rivers in Alabama, Mississippi, and Louisiana.

USFWS Designated Critical Habitat in Baldwin County, Alabama

Scientific Name	Common Name	Global Rank	State Rank	Federal Status	State Status	State Priority
Birds						
<i>Charadrius melodus</i>	Piping Plover	G3	S1N	LE, LT	SP	P1
Mammals						
<i>Peromyscus polionotus ammobates</i>	Alabama Beach Mouse	G5T1	S1	LE	SP	P1
<i>Peromyscus polionotus trissyllepsis</i>	Perdido Key Beach Mouse	G5T1	S1	LE	SP	P1

Location: coastal beaches

APPENDIX B
Supplemental Air Quality Information

CALCULATION SHEET-COMBUSTABLE EMISSIONS-BALDWIN COUNTY

Assumptions for Combustable Emissions					
Type of Construction Equipment	Num. of Units	HP Rated	Hrs/day	Days/yr	Total hp-hrs
Water Truck	2	300	8	200	960000
Diesel Road Compactors	2	100	8	200	320000
Diesel Dump Truck	2	300	8	200	960000
Diesel Excavator	2	300	8	120	576000
Diesel Hole Trenchers	0	175	8	120	0
Diesel Bore/Drill Rigs	0	300	8	120	0
Diesel Cement & Mortar Mixers	12	300	8	200	5760000
Diesel Cranes	2	175	8	90	252000
Diesel Graders	2	300	8	120	576000
Diesel Tractors/Loaders/Backhoes	2	100	8	120	192000
Diesel Bull Dozers	2	300	8	120	576000
Diesel Front End Loaders	2	300	8	120	576000
Diesel Fork Lifts	2	100	8	120	192000
Diesel Generator Set	2	40	8	120	76800

Emission Factors							
Type of Construction Equipment	VOC g/hp-hr	CO g/hp-hr	NOx g/hp-hr	PM-10 g/hp-hr	PM-2.5 g/hp-hr	SO2 g/hp-hr	CO2 g/hp-hr
Water Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Road Compactors	0.370	1.480	4.900	0.340	0.330	0.740	536.200
Diesel Dump Truck	0.440	2.070	5.490	0.410	0.400	0.740	536.000
Diesel Excavator	0.340	1.300	4.600	0.320	0.310	0.740	536.300
Diesel Trenchers	0.510	2.440	5.810	0.460	0.440	0.740	535.800
Diesel Bore/Drill Rigs	0.600	2.290	7.150	0.500	0.490	0.730	529.700
Diesel Cement & Mortar Mixers	0.610	2.320	7.280	0.480	0.470	0.730	529.700
Diesel Cranes	0.440	1.300	5.720	0.340	0.330	0.730	530.200
Diesel Graders	0.350	1.360	4.730	0.330	0.320	0.740	536.300
Diesel Tractors/Loaders/Backhoes	1.850	8.210	7.220	1.370	1.330	0.950	691.100
Diesel Bull Dozers	0.360	1.380	4.760	0.330	0.320	0.740	536.300
Diesel Front End Loaders	0.380	1.550	5.000	0.350	0.340	0.740	536.200
Diesel Fork Lifts	1.980	7.760	8.560	1.390	1.350	0.950	690.800
Diesel Generator Set	1.210	3.760	5.970	0.730	0.710	0.810	587.300

CALCULATION SHEET-COMBUSTABLE EMISSIONS-BALDWIN COUNTY

Emission factors (EF) were generated from the NONROAD2005 model for the 2006 calendar year. The VOC EFs includes exhaust and evaporative emissions. The VOC evaporative components included in the NONROAD2005 model are diurnal, hotsoak, running loss, tank permeation, hose permeation, displacement, and spillage. The construction equipment age distribution in the NONROAD2005 model is based on the population in U.S. for the 2006 calendar year.

Emission Calculations							
Type of Construction Equipment	VOC tons/yr	CO tons/yr	NOx tons/yr	PM-10 tons/yr	PM-2.5 tons/yr	SO2 tons/yr	CO2 tons/yr
Water Truck	0.465	2.190	5.808	0.434	0.423	0.783	567.045
Diesel Road Paver	0.130	0.522	1.728	0.120	0.116	0.261	189.086
Diesel Dump Truck	0.465	2.190	5.808	0.434	0.423	0.783	567.045
Diesel Excavator	0.216	0.825	2.920	0.203	0.197	0.470	340.417
Diesel Hole Cleaners\Trenchers	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Bore/Drill Rigs	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Diesel Cement & Mortar Mixers	3.872	14.726	46.210	3.047	2.983	4.634	3362.281
Diesel Cranes	0.122	0.361	1.588	0.094	0.092	0.203	147.239
Diesel Graders	0.222	0.863	3.002	0.209	0.203	0.470	340.417
Diesel Tractors/Loaders/Backhoes	0.391	1.737	1.528	0.290	0.281	0.201	146.226
Diesel Bull Dozers	0.229	0.876	3.021	0.209	0.203	0.470	340.417
Diesel Front End Loaders	0.241	0.984	3.174	0.222	0.216	0.470	340.354
Diesel Aerial Lifts	0.419	1.642	1.811	0.294	0.286	0.201	146.162
Diesel Generator Set	0.102	0.318	0.505	0.062	0.060	0.069	49.705
Total Emissions	6.876	27.234	77.104	5.619	5.484	9.013	6536.396

Conversion factors	
Grams to tons	1.102E-06

CALCULATION SHEET-TRANSPORTATION COMBUSTABLE EMISSIONS-BALDWIN COUNTY

Construction Worker Personal Vehicle Commuting to Construction Site-Passenger and Light Duty Trucks									
Pollutants	Emission Factors		Assumptions				Results by Pollutant		
	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of cars	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	60	90	20	20	0.16	0.19	0.35
CO	12.4	15.7	60	90	20	20	1.48	1.87	3.34
NOx	0.95	1.22	60	90	20	20	0.11	0.15	0.26
PM-10	0.0052	0.0065	60	90	20	20	0.00	0.00	0.00
PM 2.5	0.0049	0.006	60	90	20	20	0.00	0.00	0.00

Heavy Duty Trucks Delivery Supply Trucks to Construction Site									
Pollutants	Emission Factors		Assumptions				Results by Pollutant		
	10,000-19,500 lb Delivery Truck	33,000-60,000 lb semi trailer rig	Mile/day	Day/yr	Number of trucks	Number of trucks	Total Emissions Cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	0.29	0.55	60	90	2	2	0.00	0.01	0.01
CO	1.32	3.21	60	90	2	2	0.02	0.04	0.05
NOx	4.97	12.6	60	90	2	2	0.06	0.15	0.21
PM-10	0.12	0.33	60	90	2	2	0.00	0.00	0.01
PM 2.5	0.13	0.36	60	90	2	2	0.00	0.00	0.01

Pollutants	Emission Factors		Assumptions				Results by Pollutant		
	Passenger Cars g/mile	Pick-up Trucks, SUVs g/mile	Mile/day	Day/yr	Number of Cars	Number of trucks	Total Emissions cars tns/yr	Total Emissions Trucks tns/yr	Total tns/yr
VOCs	1.36	1.61	30	90	0	0	-	0.00	-
CO	12.4	15.7	30	90	0	0	-	0.00	-
NOx	0.95	1.22	30	90	0	0	-	0.00	-
PM-10	0.0052	0.0065	30	90	0	0	-	0.00	-
PM 2.5	0.0049	0.006	30	90	0	0	-	0.00	-

Truck Emission Factor Source: USEPA 2005 Emission Facts: Average annual emissions and fuel consumption for gasoline-fueled passenger cars and light trucks. EPA 420-F-05-022 August 2005. Emission rates were generated using MOBILE.6 highway vehicle emission factor model.

CALCULATION SHEET-FUGITIVE DUST-BALDWIN COUNTY

Construction Fugitive Dust Emissions

Construction Fugitive Dust Emission Factors

	Emission Factor	Units	Source
General Construction Activities	0.19	ton PM10/acre-month	MRI 1996; EPA 2001; EPA 2006
New Road Construction	0.42	ton PM10/acre-month	MRI 1996; EPA 2001; EPA 2006

PM2.5 Emissions

PM2.5 Multiplier	0.10	(10% of PM10 emissions assumed to be PM2.5)	EPA 2001; EPA 2006
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Control Efficiency

	0.50	(assume 50% control efficiency for PM10 and PM2.5 emissions)	EPA 2001; EPA 2006
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Project Assumptions

Construction Area (0.19 ton PM10/acre-month)

Duration of Construction Project	9	months
Length	0	miles
Length (converted)	18000	feet
Width	150	feet
Area	61.98	acres

Conversion Factors

0.000022957	acres per sq feet
5280	feet per mile

Staging Areas

Duration of Construction Project		months
Length		miles
Length (converted)		feet
Width		feet
Area	0.00	acres

	Project Emissions (tons/year)			
	PM10 uncontrolled	PM10 controlled	PM2.5 uncontrolled	PM2.5 controlled
Costruction Area (0.19 ton PM10/acre-month)	105.99	53.00	10.60	5.30
Staging Areas	0.00	0.00	0.00	0.00
Total	105.99	53.00	10.60	5.30

Construction Fugitive Dust Emission Factors

General Construction Activities Emission Factor

0.19 ton PM10/acre-month Source: MRI 1996; EPA 2001; EPA 2006

The area-based emission factor for construction activities is based on a study completed by the Midwest Research Institute (MRI) Improvement of Specific Emission Factors (BACM Project No. 1), March 29, 1996. The MRI study evaluated seven construction projects in Nevada and California (Las Vegas, Coachella Valley, South Coast Air Basin, and the San Joaquin Valley). The study determined an average emission factor of 0.11 ton PM10/acre-month for sites without large-scale cut/fill operations. A worst-case emission factor of 0.42 ton PM10/acre-month was calculated for sites with active large-scale earth moving operations. The monthly emission factors are based on 168 work-hours per month (MRI 1996). A subsequent MRI Report in 1999, Estimating Particulate Matter Emissions From Construction Operations, calculated the 0.19 ton PM10/acre-month emission factor by applying 25% of the large-scale earthmoving emission factor (0.42 ton PM10/acre-month) and 75% of the average emission factor (0.11 ton PM10/acre-month). The 0.19 ton PM10/acre-month emission factor is referenced by the EPA for non-residential construction activities in recent procedures documents for the National Emission Inventory (EPA 2001; EPA 2006).

The 0.19 ton PM10/acre-month emission factor represents a refinement of EPA's original AP-42 area-based total suspended particle (TSP) emission factor in Section 13.2.3 Heavy Construction Operations. In addition to the EPA, this methodology is also supported by the South Coast Air Quality Management District and the Western Regional Air Partnership (WRAP) which is funded by the EPA and is administered jointly by the Western Governor's Association and the National Tribal Environmental Council. The emission factor is assumed to encompass a variety of non-residential construction activities including building construction (commercial, industrial, institutional, governmental), public works, and travel on unpaved roads. The EPA National Emission Inventory documentation assumes that the emission factors are uncontrolled and recommends a control efficiency of 50% for PM10 and PM2.5 in PM nonattainment areas.

New Road Construction Emission Factor

0.42 ton PM10/acre-month Source: MRI 1996; EPA 2001; EPA 2006

The emission factor for new road construction is based on the worst-case conditions emission factor from the MRI 1996 study described above (0.42 tons PM10/acre-month). It is assumed that road construction involves extensive earthmoving and heavy construction vehicle travel resulting in emissions that are higher than other general construction projects. The 0.42 ton PM10/acre-month emission factor for road construction is referenced in recent procedures documents for the EPA National Emission Inventory (EPA 2001; EPA 2006).

PM2.5 Multiplier

0.10

PM2.5 emissions are estimated by applying a particle size multiplier of 0.10 to PM10 emissions. This methodology is consistent with the procedures documents for the National Emission Inventory (EPA 2006).

Control Efficiency for PM10 and PM2.5

0.50

The EPA National Emission Inventory documentation recommends a control efficiency of 50% for PM10 and PM2.5 in PM nonattainment areas. Wetting controls will be applied during project construction (EPA 2006).

References:

EPA 2001. *Procedures Document for National Emissions Inventory, Criteria Air Pollutants, 1985-1999*. EPA-454/R-01-006. Office of Air Quality Planning and Standards, United States Environmental Protection Agency. March 2001.

EPA 2006. *Documentation for the Final 2002 Nonpoint Sector (Feb 06 version) National Emission Inventory for Criteria and Hazardous Air Pollutants*. Prepared for: Emissions Inventory and Analysis Group (C339-02) Air Quality Assessment Division Office of Air Quality Planning and Standards, United States Environmental Protection Agency. July 2006.

MRI 1996. *Improvement of Specific Emission Factors (BACM Project No. 1)*. Midwest Research Institute (MRI). Prepared for the California South Coast Air Quality Management District, March 29, 1996.

CALCULATION SHEET-SUMMARY OF EMISSIONS-BALDWIN COUNTY

Proposed Action Construction Emissions for Criteria Pollutants (tons per year)						
Emission source	VOC	CO	NOx	PM-10	PM-2.5	SO2
Combustable Emissions	6.88	27.23	77.10	5.62	5.48	9.01
Construction Site-fugitive PM-10	NA	NA	NA	53.00	5.30	NA
Construction Workers Commuter & Trucking	0.36	3.40	0.47	0.01	0.01	NA
Total emissions	7.24	30.63	77.57	58.62	10.79	9.01
De minimis threshold	NA	NA	NA	NA	NA	NA

APPENDIX C
Correspondence and Consultation



Press Release

Naval Air Station Whiting Field Public Affairs Office

USS Essex Street, Suite 206, Milton FL 32570
(850) 623-7651 ext 30 Comm / (850) 623-7601 Fax

FOR IMMEDIATE RELEASE

**March 13, 2009
Release # 09-12**

Public Comments Still Encouraged on NOLF Extension Plans

Naval Facilities Command and Naval Air Station Whiting Field representatives are continuing to take comments from residents of Baldwin County, Ala. pertaining to the proposed runway extensions of Navy outlying fields (NOLF) in the area.

Residents near the NOLFs Silverhill, Summerdale, Barin, and Wolf are encouraged to review a publicly accessible website that highlights the various options available to the Navy, the need for the extensions, and place for comments directed to the planners. The web site link is <http://www.navyolfextensions.com/index.html>

"We are analyzing the impacts of all alternatives that meet the operational requirements of Whiting Field and environmental impacts," said Sean Heath, Environmental Assessment Planner for the project. "The Navy would sincerely like to minimize impacts to the citizens of Baldwin County as we move forward to meet the requirements of the new T-6B aircraft."

Naval Air Station Whiting Field and Training Air Wing FIVE, the base's major tenant command, provide primary flight training to nearly 60 percent of all Navy and Marine Corps aviators as well as to U. S. Coast Guard aviators, select Air Force pilots and flight students from Allied foreign countries. The current training aircraft was implemented in 1977 and is aging. The T-34 Turbo Mentor is slated to begin transitioning to the T-6B Texan later this year. The transition is expected to be complete by 2015.

The T-6B has greater horsepower, increased range, improved avionics, and lower operational costs. However, the aircraft needs longer runways for safe landing operations.

The Navy held a public forum in Summerdale in January to discuss options for the extensions and nearly 200 residents attended. The Navy extended the 30 day deadline for public comments to enable greater public participation in the decision making process. The website will provide up to date information on the plans as well as give people potentially affected by the plans another avenue to make their opinions known.

The tentative date for the draft environmental assessment and the preferred alternative is May 15. There will be another 30 day public comment period following the announcement of the desired option and the final decision is slated to be determined by Sep. 15.

"Input from the public is a vital part of this process. We have gone beyond what is required by law to solicit that input and we welcome the comments. We read them all carefully and use them as part of our evaluation criteria as we work toward our final decision," Heath said.

- 30 -

Editor's note: Media partners with questions about this release should call the NAS Whiting Field Public Affairs Office at (850) 623-7651 extension #30 or (850) 501-0433 cell.



DEPARTMENT OF THE NAVY

COMMANDING OFFICER
NAS WHITING FIELD
7550 USS ESSEX STREET SUITE 200
MILTON, FLORIDA 32570-6155

IN REPLY REFER TO

5090
Ser N00/9117
02 APR 09

The Honorable Jo Bonner
Member of Congress
1302 North McKenzie Street
Foley, AL 36535

Dear Congressman Bonner:

SUBJ: ENVIRONMENTAL ASSESSMENT FOR THE EXTENSION OF RUNWAYS AT NAVY
OUTLYING LANDING FIELDS (NOLFS) TO ACCOMMODATE THE T-6 JOINT
PRIMARY AIRCRAFT TRAINING SYSTEM AT NAS WHITING FIELD, FLORIDA

Thank you for your letter regarding comments from Dr. Michael Quinn. Understandably, some of the residents of Alabama have comments and questions regarding the project. To date, we have received approximately 400 comments. The continued support Alabama has provided to the military is important and greatly appreciated. The Navy is committed to environmental preservation and being a good neighbor. The intent of this environmental assessment (EA) is to inform the public about the proposed project and identify potential impacts. The Navy is dedicated to conducting a thorough, transparent analysis of the proposed project.

In 1995, the Department of Defense selected the T-6 to replace the T-34C as the new Joint Primary Aircraft Training System aircraft for the joint U.S. military forces. The T-6 is scheduled to arrive at NAS Whiting Field in 2009, with delivery occurring through 2015. The propellers of the T-6 cannot be reversed to slow the aircraft after landing and the brakes/tires are not conducive for landings on fields suitable for the T-34. Because of this, the T-6 requires a minimum safe runway length of 4,000 feet for dual operations (i.e., instructor and student pilot) and 5,000 feet for solo operations (i.e., student pilot). Currently, only NOLFs Brewton and Choctaw meet this runway length requirement.

The process for selecting the airfield alternatives involves looking at existing capability and expected operational criteria. The construction of a new NOLF is cost prohibitive. Training requirements necessitate at least two T-6 capable NOLFs in the northern Military Operating Area (MOA) and at least two in the southern MOA. Of the thirteen NOLFs NAS Whiting Field uses, eight are for fixed wing. The remaining five are for helicopter use only. The eight fixed wing NOLFs are Barin (A1), Brewton (A1), Choctaw (F1), Evergreen (A1), Holley (F1), Silverhill (A1), Summerdale (A1), and Wolf (A1). NOLF Brewton already meets the T-6 criteria. A proposed plan to expand Evergreen for the joint use of civilian/military aircraft is

undergoing analysis with the support of the City of Evergreen and the Federal Aviation Administration. Based on a preliminary analysis of issues, impacts, and operational requirements, NOLFs Holley and Wolf have been eliminated as alternatives for this project. Brewton and Evergreen are both in the northern MOA. That leaves four NOLFs to be considered as alternatives in the southern MOA; Barin, Choctaw, Silverhill, and Summerdale.

The National Environmental Policy Act (NEPA) process for this project is just beginning, and the analysis of potential impacts for the four NOLFs being considered is underway. A draft environmental assessment (EA) is scheduled for release to the public for comments in mid-May of this year. After evaluation of all impacts and responses to the draft EA, a decision will be made to determine if further NEPA analysis is necessary. It is premature to try and select a preferred alternative at this early stage of the ongoing NEPA analysis. When the draft EA is available, we will forward a copy to your office for comment.

Construction is initially planned to begin in Fiscal Year 2010. A final decision on NOLF runway extensions will not take place until the NEPA analysis is complete. The projected completion date for the NEPA analysis is October 2009.

I want to thank you again for your letter. The Navy is dedicated to working with the State of Alabama as we move forward to meet the additional requirements of the new trainer aircraft. Please feel free to contact me for any additional questions or comments regarding the proposed project. I can be reached at (850) 623-7121, fax: (850) 623-7757, or by email at enrique.sadsad@navy.mil.

Sincerely,



E. L. SADSAD
Captain, U.S. Navy

Copy to:
CNRSE
OLA
Senator Richard Selby
Senator Jeff Sessions

Press Release

Naval Air Station Whiting Field Public Affairs Office

USS Essex Street, Suite 206, Milton FL 32570
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FOR IMMEDIATE RELEASE

**April 3, 2009
Release # 09-17**

First Public Comment Period on NOLF Extension to Close

Naval Facilities Command (NAVFAC) and Naval Air Station Whiting Field representatives are scheduled to close their first public comment period pertaining to the proposed runway extensions of Navy outlying fields (NOLF) in the Baldwin County, Ala. Area, Monday, April 6 at 4 p.m .

Closing the comment period will enable the NAVFAC representatives to review public input and incorporate that information into the Environmental Assessment (EA). Once the draft EA is published, tentatively in mid to late May, the Navy's desired option will be announced both publicly and through the website www.navyolfextensions.com.

Following the release of the draft EA, there will be an additional 30 day public comment period on the desired option.

Residents near the NOLFs Silverhill, Summerdale, Barin, and Wolf are encouraged to continue to review the website for current information on the project

Naval Air Station Whiting Field and Training Air Wing FIVE, the base's major tenant command, provide primary flight training to nearly 60 percent of all Navy and Marine Corps aviators as well as U. S. Coast Guard aviators, select Air Force pilots and flight students from Allied foreign countries. The current training aircraft was implemented in 1977 and is aging. The T-34 Turbo Mentor is slated to begin transitioning to the T-6B Texan later this year. The transition is expected to be complete by 2015.

The T-6B has greater horsepower, increased range, improved avionics, and lower operational costs. However, the aircraft needs longer runways for safe landing operations.

The final decision on the project is scheduled to be made Sept. 15, 2009.

Editor's note: Media partners with questions about this release should call the NAS Whiting Field Public Affairs Office at (850) 623-7651 extension #30 or (850) 501-0433 cell.

Press Release

Naval Air Station Whiting Field Public Affairs Office

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FOR IMMEDIATE RELEASE

**April 10, 2009
Release # 09-21**

Navy No Longer Considering NOLF Wolf for Runway Extension

Naval Air Station (NAS) Whiting Field and Naval Facilities Engineering Command have pulled Navy Outlying Field (NOLF) Wolf from consideration in the proposed runway extension project in Baldwin County, Ala.

The project team is reviewing NOLF runways that could be extended to accommodate the T-6 Texan aircraft that NAS Whiting Field will be receiving to replace the T-34 Turbo Mentor planes currently in use.

Two of the outlying fields in Baldwin County would need to have runways extended to ensure the training mission at NAS Whiting Field could continue to be met. NOLF Wolf was one of the options initially considered, but due to airspace limitations caused by its proximity to NAS Pensacola and Pensacola Regional Airport it has been removed from immediate consideration.

"Navy Outlying Landing Field Wolf will no longer be fully evaluated in the Environmental Assessment (EA) process as a viable alternative for this proposed project," said Sean Heath, a Naval Facilities Engineering Command (NAVFAC) representative.

The EA review will continue to look at NOLF Barin, NOLF Summerdale and NOLF Silverhill combinations as NAS Whiting Field and NAVFAC work toward a single preferred alternative. The draft EA is tentatively scheduled to be released in mid-May. Following release of the draft EA, the public will have another 30-day period to provide input to NAVFAC pertaining to the proposed action.

"The Navy appreciates the comments received so far and looks forward to receiving public comments on the draft EA," said Heath.

- 30 -

Editor's note: Media partners with questions about this release should call the NAS Whiting Field Public Affairs Office at (850) 623-7651 extension #30 or (850) 501-0433 cell.



DEPARTMENT OF THE NAVY

COMMANDING OFFICER
NAS WHITING FIELD
7550 USS ESSEX STREET SUITE 200
MILTON, FLORIDA 32570-6155

IN REPLY REFER TO

5090
Ser N00/ 9148
07 MAY 09

The Honorable Jo Bonner
Member of Congress
1302 North McKenzie Street
Foley, AL 36535

Dear Congressman Bonner:

SUBJECT: INQUIRY TO REVIEW JACKSON MUNICIPAL AIRPORT TO
ACCOMMODATE THE T-6 JOINT PRIMARY AIRCRAFT TRAINING
SYSTEM (JPATS)

Thank you for your letter regarding comments from Mayor Richard Long. The Navy is dedicated to conducting a thorough analysis of the proposed project. The purpose of the project is to provide suitable Navy Outlying Landing Field (NOLF) facilities in the Southern Military Operating Area that can accommodate the landing and takeoff requirements of the JPATS T-6 aircraft.

The process for selecting the airfield alternatives involves analysis of current capability and expected operational criteria. Training Air Wing FIVE has conveyed a requirement for two T-6 capable NOLFs in the Northern Military Operating Area (MOA) and two in the Southern MOA. NOLF Brewton meets the T-6 criteria. A plan to expand Middleton Airport's runways for joint use of civilian/military aircraft is in work with the support of the City of Evergreen and the Department of the Navy. Brewton and Evergreen are both in the Northern MOA. Based on a preliminary analysis of issues, impacts, and operational requirements, NOLF Holley and NOLF Wolf were eliminated as alternatives for this project. The remaining NOLFs meeting the scoping criteria in the Southern MOA are Barin, Choctaw, Silverhill, and Summerdale. Unfortunately, Jackson Municipal Airport does not meet the operational criteria to accommodate the T-6. The airport is located out of the area requested by Training Air Wing FIVE and validated by Chief of Naval Air Training (under the Southern MOA).

I want to thank you again for your letter. The Navy is dedicated to working with the State of Alabama as we move forward to meet the additional requirements of the new trainer

aircraft. Please feel free to contact me for any additional questions or comments regarding the proposed project. I can be reached at (850) 623-7121, FAX: (850) 623-7757, or by email at enrique.sadsad@navy.mil.

Sincerely,

A handwritten signature in black ink, appearing to read "E. L. SADSAD". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

E. L. SADSAD
Captain, U.S. Navy

Copy to:
CNRSE
OLA
Senator Richard Shelby
Senator Jeff Sessions



DEPARTMENT OF THE NAVY

COMMANDING OFFICER
NAS WHITING FIELD
7550 USS ESSEX STREET SUITE 200
MILTON, FLORIDA 32570-6155

IN REPLY REFER TO

5090
Ser N00/9161
22 MAY 09

The Honorable Jo Bonner
Member of Congress
1302 North McKenzie Street
Foley, AL 36535

Dear Congressman Bonner:

SUBJECT: ENVIRONMENTAL ASSESSMENT AND AIRCRAFT NOISE CONCERNS FOR
THE EXTENSION OF RUNWAYS AT NAVY OUTLYING LANDING FIELDS
(NOLFS) TO ACCOMMODATE THE T-6 JOINT PRIMARY AIRCRAFT
TRAINING SYSTEM AT NAS WHITING FIELD, FLORIDA

Thank you for your letter regarding comments from Colonel Peter Quinn. Understandably, some of the residents of Alabama have comments and questions regarding the project. To date, we have received approximately 400 comments. The continued support Alabama has provided to the military is important and greatly appreciated. The Navy is committed to environmental preservation and being a good neighbor. The intent of this environmental assessment (EA) is to inform the public about the proposed project and to identify potential impacts. The Navy is dedicated to conducting a thorough, transparent analysis of the proposed project.

In 1995, the Department of Defense selected the T-6 to replace the T-34C as the new Joint Primary Aircraft Training System aircraft for the joint U.S. military forces. The T-6 is scheduled to arrive at NAS Whiting Field in 2009, with delivery occurring through 2015. The propellers of the T-6 cannot be reversed to slow the aircraft after landing and the brakes/tires are not conducive for landings on fields suitable for the T-34. Because of this, the T-6 requires a minimum safe runway length of 4,000 feet for dual operations (i.e., instructor and student pilot) and 5,000 feet for solo operations (i.e., student pilot).

The process for selecting the airfield alternatives involves looking at existing capability and expected operational criteria. All viable options are being evaluated in the EA. The National Environmental Policy Act (NEPA) process for this project is underway, and the analysis of potential impacts for the proposed action is still being evaluated. Environmental and operational factors are being assessed to minimize potential impacts on the environment. Some of the factors associated with the proposed action include: land use, soils, biological resources, coastal zone management, historic and cultural resources, air quality, noise, water resources, socioeconomics, and aesthetics. The estimated release of the draft EA

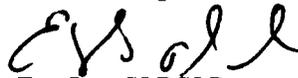
5090
Ser N00/9161
22 MAY 09

for the proposed runway extension project has been moved from May 15 to the end of June 2009. This will provide an opportunity for Navy representatives to more fully evaluate alternatives for expanding runways at NOLFs to accommodate T-6 aircraft operations. The extra time may also help to further reduce potential impacts on the environment and the communities near the fields. After evaluation of all impacts and responses to the draft EA, a decision will be made to determine if further NEPA analysis is necessary. It is premature to try and select a preferred alternative at this early stage of the ongoing NEPA analysis. When the draft EA is available, we will forward a copy to your office for comment.

A final decision on NOLF runway extensions will not take place until the NEPA analysis is complete. The projected completion date for the NEPA analysis is October 2009.

I want to thank you again for your letter. The Navy is dedicated to working with the State of Alabama as we move forward to meet the additional requirements of the new trainer aircraft. Please feel free to contact me for any additional questions or comments regarding the proposed project. I can be reached at (850) 623-7121, FAX: (850) 623-7757, or by email at Enrique.sadsad@navy.mil.

Sincerely,



E. L. SADSAD
Captain, U.S. Navy

Copy to:
CNRSE
OLA
Senator Richard Shelby
Senator Jeff Sessions



DEPARTMENT OF THE NAVY

COMMANDING OFFICER
NAS WHITING FIELD
7550 USS ESSEX STREET SUITE 200
MILTON, FLORIDA 32570-6155

IN REPLY REFER TO

5090
Ser N00/9186

JUN 17 2009

The Honorable Jo Bonner
Member of Congress
1302 North McKenzie Street
Foley, AL 36535

Dear Congressman Bonner:

SUBJ: EXTENSION OF RUNWAYS AT NAVY OUTLYING LANDING FIELDS
(NOLFS) TO ACCOMMODATE THE T-6 JOINT PRIMARY AIRCRAFT
TRAINING SYSTEM AT NAS WHITING FIELD, MILTON, FLORIDA

Thank you for your letter regarding comments from Mr. and Mrs. Andersen. Understandably, some of the residents of Alabama have comments and questions regarding the project. The continued support Alabama has provided to the military is important and greatly appreciated. The Navy is committed to environmental preservation and being a good neighbor. The Navy is dedicated to conducting a thorough, transparent analysis of the proposed project.

In 1995 the Department of Defense selected the T-6 to replace the T-34C as the new Joint Primary Aircraft Training System aircraft for the joint U.S. military forces. The T-6 is scheduled to arrive at NAS Whiting Field in 2009 with delivery occurring through 2015. The propellers of the T-6 cannot be reversed to slow the aircraft after landing and the brakes/tires are not conducive for landings on fields suitable for the T-34. Because of this, the T-6 requires a minimum safe runway length of 4,000 feet for dual operations (i.e., instructor and student pilot) and 5,000 feet for solo operations (i.e., student pilot).

The process for selecting an airfield alternative involves looking at existing capability and expected operational criteria. The process for this project is underway, and the analysis of potential impacts for the proposed action is still being evaluated. Environmental and operational factors are being assessed to minimize potential impacts on the environment. Some of the factors associated with the proposed action include: Land use, soils, biological resources, coastal zone management,

5090
Ser N00/9186
JUN 17 2009

historic and cultural resources, air quality, noise, water resources, socioeconomics, and aesthetics. It is premature to try and select a preferred alternative at this early stage of the project. A final decision on NOLF runway extensions will not take place until the National Environmental Policy Act (NEPA) process is complete.

I want to thank you again for your letter. The Navy is dedicated to working with the State of Alabama as we move forward to meet the additional requirements of the new trainer aircraft. Please feel free to contact me for any additional questions or comments regarding the proposed project. I can be reached at (850)623-7121, fax: (850) 623-7757, or by email at Enrique.Sadsad@navy.mil.

Sincerely,



E. L. SADSAD
Captain, U.S. Navy
Commanding Officer
NAS Whiting Field

Copy to:
CNRSE
OLA
Senator Richard Shelby
Senator Jeff Sessions

Media Advisory

Naval Air Station Whiting Field Public Affairs Office

USS Essex Street, Suite 206, Milton FL 32570
(850) 623-7651 ext 30 Comm / (850) 623-7601 Fax

FOR IMMEDIATE RELEASE

**June 25, 2009
Release # 09-37**

DEADLINE FOR RELEASE OF RUNWAY EXTENSION DRAFT EA EXTENDED UNTIL FALL 2009

As Naval Facilities Engineering Command Southeast and Naval Air Station (NAS) Whiting Field began reviewing various alternatives for expanding the NAS Whiting Outlying Landing Fields to accommodate the T-6 aircraft operations, it became clear that all of the alternatives would exceed \$1,000,000. When this threshold is met, land acquisition projects require review by the Under Secretary of Defense for Acquisition, Technology, and Logistics, which will delay release of the Draft Environmental Assessment (EA) to the public until fall 2009.

Residents near the NOLFs Silverhill, Summerdale, and Barin are encouraged to continue to review the website, www.navyolfextensions.com, for current information on the project.

Naval Air Station Whiting Field and Training Air Wing FIVE, the base's major tenant command, provide primary flight training to nearly 60 percent of all Navy and Marine Corps aviators as well as U. S. Coast Guard aviators, select Air Force pilots and flight students from Allied foreign countries. The current training aircraft was implemented in 1977 and is aging. The T-34C Turbo Mentor is slated to begin transitioning to the T-6B Texan later this year. The transition is expected to be complete by 2015.

The T-6B operates much more similarly to fleet aircraft than does the T-34, which will substantially enhance training operations at NAS Whiting Field.

The final decision on the project is scheduled to be made in early spring 2010.

- 30 -

Editor's Note: Media partners wishing more information should call the Naval Air Station Whiting Field Public Affairs Office at (850) 623-7651 ext. 1-30 or 850-501-0433 cell.

Press Release

Naval Air Station Whiting Field Public Affairs Office

USS Essex Street, Suite 206, Milton FL 32570
(850) 623-7651 ext 30 Comm / (850) 623-7601 Fax

FOR IMMEDIATE RELEASE

**June 30, 2010
Release # 10-41**

NAS Whiting Field Runway Extension Project Resumes - *Waiver Approval Granted from Under Secretary of Defense*

Naval Facilities Command (NAVFAC) and Naval Air Station Whiting Field (NASWF) representatives have received the waiver approval from the Office of the Under Secretary of Defense for Installations and Environment. The process to extend runways at Navy outlying fields (NOLF) in Baldwin County can now resume.

NAVFAC and NASWF are in the process of completing the Environmental Assessment and expect to have the final package assembled by late-July. This package will include the desired option for the runway extension project. Information from the package will be made available to local media, sent to local and state representatives, and placed in an advertisement in local papers.

Residents near the NOLFs Silverhill, Summerdale, and Barin, are encouraged to review a publicly accessible website, <http://www.navyolfextensions.com/index.html>. In addition to providing information about the desired option and the reasons for the extension project, the site provides a forum for comments to project planners. Once the draft Environmental Assessment with the desired option is announced, there will be a 30-day public comment period where community members may communicate with base and NAVFAC representatives, through the website forum, to express opinions, voice concerns or relate information about the project.

"We consider each comment carefully and are truly concerned about minimizing the affect this project will have on the local community," Thomas Currin, Environmental Assessment Planner for the project said. "However, this project is necessary to support the current and future flight training mission in Northwest Florida."

Naval Air Station Whiting Field and Training Air Wing FIVE, the base's major tenant command, provide primary flight training to nearly 60 percent of all Navy and Marine Corps aviators as well as to U. S. Coast Guard aviators, select Air Force pilots and flight students from allied foreign countries. The current training aircraft was implemented in 1977 and is aging. The T-34 Turbo Mentor has already begun transitioning to the T-6B Texan. The transition is expected to be complete by 2015.

Editor's note: Media partners with questions about this release should call the NAS Whiting Field Public Affairs Office at (850) 623-7651 extension #30 or (850) 501-0433 cell.

July 8, 2009

This letter is addressed to:

Richard Shelby, US Senator
Jeff Sessions, US Senator (copy to Mr. Sessions via web e-mail)
Bryan Parker, Jo Bonner's aid. (e-mail)
Thomas Vinson, Commander NAS Operations (e-mail)
Jo Bonner, Congressman Alabama's 1st district (copy to Mr. Bonner via House web e-mail)
Ed Bishop, Baldwin Co. Commission (e-mail)

Dear Sirs,

Over the past few weeks, I have had phone conversations with Cmdr. Vinson regarding the flight training operations occurring at the NAS Whiting Silverhill field. Specifically, the issues are:

1. Low Level (600-700 feet) flight training by **trainees** directly over a subdivision of 120+ homes.
2. Planes making sharp banking turns directly over residential areas.
3. Flights beginning at 9am and ending after 6:30pm.
4. Pass over rate at one every 2-3 minutes..... That's 200-250 flyovers per day!
5. Almost daily operations.

Cmdr. Vinson agrees that the data shown above is correct and that the flyover rate can be as high as 250 per day. He also stated that they will do nothing to change these operations.

Cmdr. Vinson has replied that the Navy is within its rules governing these operations. He has said that these OLFs have been in place for a very long time and this is true although some have been "abandoned" for periods of time in the past. Shame of the Baldwin Co. Commission for allowing residential land use this close to the Silverhill field. Shame on the developers, builders and real estate agents for not alerting home buyers of this issue. But the fact is that the homes **are** here and are providing huge tax revenues for the State of Alabama and Baldwin County. Things Change!

My questions are:

1. Is it really the RIGHT thing to do? According to Cmdr. Vinson, the Navy is operating within their rules. But, is it REALLY right to be flying at 600 feet over densely populated subdivisions at the rate of 250 flights per day?
2. Would you want this over your house?
3. Is this the way the Navy wants to treat its neighbors?
4. Would you want trainees flying 600 feet over your kids in the back yard?
5. What revenue does Alabama / Baldwin get for putting up with these noise and safety issues?

These flight operations have a significant impact on SAFETY, quality of life and real estate values.

One of these days there will be a flight crash (God forbid) that puts lives in danger on the ground. Then we will be searching for the "guilty" and questioning why we are doing low level flight training operations over residential areas.

Things change.....and the Navy needs to look to more uninhabited areas for these activities. My family and I are staunch supporters of our military. We believe in having the strongest fighting force in the world and this will keep us free.

Thanks for the support you can give. Your feedback is wanted and appreciated.

Tom and Terry-Jo Gibson
11817 Halcyon Loop
Daphne, AL.
36526
251-621-8960
gibsonstt@bellsouth.net



DEPARTMENT OF THE NAVY

COMMANDING OFFICER
NAS WHITING FIELD
7550 USS ESSEX STREET SUITE 200
MILTON, FLORIDA 32570-6155

IN REPLY REFER TO

5090
Ser N00/9197
16 JUL 09

The Honorable Jo Bonner
Member of Congress
1302 North McKenzie Street
Foley, AL 36535

Dear Congressman Bonner:

SUBJ: EXTENSION OF RUNWAYS AND AIRCRAFT NOISE CONCERNS AT NAVY
OUTLYING LANDING FIELDS (NOLFS) TO ACCOMMODATE THE T-6
JOINT PRIMARY AIRCRAFT TRAINING SYSTEM AT NAVAL AIR
STATION WHITING FIELD, MILTON, FLORIDA

Thank you for your letter regarding comments from Mr. and Mrs. Gibson. Understandably, some of the residents of Alabama have comments and questions regarding the project. The continued support Alabama has provided to the military is important and greatly appreciated. The Navy is committed to environmental preservation and being a good neighbor. The Navy is dedicated to conducting a thorough, transparent analysis of the proposed project.

In 1995, the Department of Defense selected the T-6 to replace the T-34C as the new Joint Primary Aircraft Training System aircraft for the joint U.S. military forces. The T-6 is scheduled to arrive at NAS Whiting Field in 2009 with delivery occurring through 2015. The propellers of the T-6 cannot be reversed to slow the aircraft after landing and the brakes/tires are not conducive for landings on fields suitable for the T-34. Because of this, the T-6 requires a minimum safe runway length of 4,000 feet for dual operations (i.e., instructor and student pilot) and 5,000 feet for solo operations (i.e., student pilot).

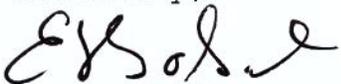
The process for selecting an airfield alternative involves looking at existing capability and expected operational criteria. The process for this project is underway, and the analysis of potential impacts for the proposed action is still being evaluated. Environmental and operational factors are being assessed to minimize potential impacts on the environment. Some of the factors associated with the proposed action include: land use, soils, biological resources, coastal zone management,

5090
Ser N00/ 9197
16 JUL 09

historic and cultural resources, air quality, noise, water resources, socioeconomics, and aesthetics. It is premature to try and select a preferred alternative at this early stage of the project. A final decision on NOLF runway extensions will not take place until the National Environmental Policy Act (NEPA) process is complete.

Mr. and Mrs. Gibson's comments in regard to noise concerns were reviewed by Training Air Wing (TRAWING) FIVE. Established patterns, specifically aircraft operations utilizing the westbound runway, do fly in close proximity to the Avalon subdivision. Unfortunately, the residents' property is located in a subdivision that was built approximately one mile north of NOLF Silverhill. The location places the southern residences near and/or adjacent to the normal downwind pattern. These types of operations have been conducted for several decades. TRAWING FIVE has always been vigilant in reviewing operating procedures to ensure operations are conducted with the utmost safety, and are highly sensitive to the concerns of the private citizens affected by operations. After review of Mr. Gibson's concern, TRAWING FIVE found that there appears to be no deviations to standard operating procedures.

I want to thank you again for your letter. The Navy is dedicated to working with the State of Alabama as we move forward to meet the additional requirements of the new trainer aircraft. Please feel free to contact me for any additional questions or comments regarding the proposed project. I can be reached at (850) 623-7121, fax: (850) 623-7757, or by email at Enrique.Sadsad@navy.mil.

Sincerely,

E. L. SADSAD
Captain, U.S. Navy

Copy to:
CNRSE
OLA
Governor Bob Riley
Senator Richard Shelby
Senator Jeff Sessions



DEPARTMENT OF THE NAVY

COMMANDING OFFICER
NAS WHITING FIELD
7550 USS ESSEX STREET SUITE 200
MILTON, FLORIDA 32570-6155

IN REPLY REFER TO

5090
Ser N00/9202
28 JUL 09

The Honorable Jo Bonner
Member of Congress
1302 North McKenzie Street
Foley, AL 36535

Dear Congressman Bonner:

SUBJ: EXTENSION OF RUNWAYS AND AIRCRAFT NOISE CONCERNS AT NAVY
OUTLYING LANDING FIELDS (NOLFS) TO ACCOMMODATE THE T-6
JOINT PRIMARY AIRCRAFT TRAINING SYSTEM AT NAVAL AIR
STATION WHITING FIELD, MILTON, FLORIDA

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The process for selecting an airfield alternative involves looking at existing capability and expected operational criteria. The process for this project is underway, and the analysis of potential impacts for the proposed action is still being evaluated. Environmental and operational factors are being assessed to minimize potential impacts on the environment. Some of the factors associated with the proposed action include: land use, soils, biological resources, coastal zone management,

5090
Ser N00/9202
28 JUL 09

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Mr. and Mrs. Gibson's comments in regard to noise concerns were reviewed by Training Air Wing (TRAWING) FIVE. Established patterns, specifically aircraft operations utilizing the westbound runway, do fly in close proximity to the Avalon subdivision. Unfortunately, the residents' property is located in a subdivision that was built approximately one mile north of NOLF Silverhill. The location places the southern residences near and/or adjacent to the normal downwind pattern. These types of operations have been conducted for several decades. TRAWING FIVE has always been vigilant in reviewing operating procedures to ensure operations are conducted with the utmost safety, and are highly sensitive to the concerns of the private citizens affected by operations. After review of Mr. Gibson's concern, TRAWING FIVE found that there appears to be no deviations to standard operating procedures.

I want to thank you again for your letter. The Navy is dedicated to working with the State of Alabama as we move forward to meet the additional requirements of the new trainer aircraft. Please feel free to contact me for any additional questions or comments regarding the proposed project. I can be reached at (850) 623-7121, fax: (850) 623-7757, or by email at Enrique.Sadsad@navy.mil.

Sincerely,



E. L. SADSAD
Captain, U.S. Navy

Copy to:
CNRSE
OLA
Senator Richard Shelby
Senator Jeff Sessions



DEPARTMENT OF THE NAVY

COMMANDING OFFICER
NAS WHITING FIELD
7550 USS ESSEX STREET SUITE 200
MILTON, FLORIDA 32570-6155

IN REPLY REFER TO

5090
Ser N00/0033
11 Feb 10

The Honorable Richard Shelby
Member of Senate
113 Saint Joseph Street
Mobile, AL 36602

Dear Senator Shelby:

SUBJECT: FLIGHT TRAINING OPERATIONS AT NAVY OUTLYING LANDING
FIELD SILVERHILL

Thank you for your letter regarding comments from Mr. and Mrs. Gibson. Navy Accident Potential Zones (APZs) are areas in the vicinity of airfield runways where an aircraft mishap is most likely to occur, if one were to occur. While the likelihood of a mishap is remote, the Navy recommends that land uses within APZs be minimal or low density to ensure the maximum protection of public health and property. APZs are unique to military airfields. In the 1960s and 1970s, the military recognized the need to establish buffers around airfield runways. The military collected accident data from all the military services to determine the areas of the runway where accidents are most likely to occur. These areas are represented by the Clear Zone, APZ 1, and APZ 2. Mr. and Mrs. Gibson's property is located outside these identified zones.

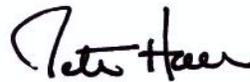
The established patterns, specifically aircraft operations utilizing the westbound runway do fly in close proximity to the Avalon subdivision. Unfortunately, the resident's property is located in a subdivision that was built approximately one mile north of Navy Outlying Landing Field. The location places the southern residences near and or adjacent to the normal downwind pattern. These types of operations have been conducted for several decades. Training Air Wing FIVE has always been vigilant in reviewing operating procedures to ensure operations are conducted with the utmost safety and are highly sensitive to the concerns of private citizens. After a thorough review of Mr. Gibson's concern, Training Air Wing FIVE concluded that no deviations to standard operating procedures have occurred.

I want to thank you again for your letter. The Navy is dedicated to working with the State of Alabama as we move

5090
Ser N00/0033
11 Feb 10

forward to train the finest aviators in the world. Please feel free to contact me for any additional questions or comments. I can be reached at (850)623-7121, fax: (850) 623-7757, or by email: peter.hall1@navy.mil.

Sincerely,

A handwritten signature in black ink that reads "Peter Hall". The signature is written in a cursive style with a large, stylized initial "P".

PETER HALL
Captain, U.S. Navy

Copy to:
CNRSE
OLA
Senator Jeff Sessions

Scanned to LF
for town halls

January 25, 2010

Send to
NAS -

→ Richard Shelby, US Senator
Jeff Sessions, US Senator
E. L. Sadsad, Captain, U. S. Navy
Jo Bonner, U. S. Congressman Alabama's 1st district
Trip Pittman, Senator, AL State Legislature
Bob Riley, Governor, Alabama
Ed Bishop, Baldwin Co. Commission

Dear Sirs,

Attached to this letter is a copy of an article from today's Mobile Press Register regarding the crash of a Whiting Field T34C trainer in Lake Pontchartrain on Saturday January 23, 2010. Please be reminded of another crash of a Whiting Field T34C trainer less than two years ago (March 14, 2008) near Birmingham.

Also attached is a letter that I sent to you all in July 2009 that addresses our concerns with these low level flight training operations over residential areas. As you re-read this letter let me remind you of dangers of low level flight training with trainees flying over residential areas at the rate of 200-250 flights per day 7 days per week. The T34C trainer crashes are documented. It's just a matter of time, but it will happen and people on the ground will be killed or injured.

There are thousands of residential properties surrounding the OLFs and as the economy picks up the population density will increase.

What make sense is for the Navy to move these operations to more remote uninhabited areas.

Sincerely,

Tom & Terry Gibson
11817 Halcyon Loop
Daphne, AL. 36526
251-621-8960
gibsonstt@bellsouth.net

Search under way for Navy pilot after crash

▶ Another pilot recovered after plane lands in Lake Pontchartrain

The Times-Picayune

NEW ORLEANS — The

U.S. Coast Guard continued searching Sunday for a Navy pilot after the airplane he and another pilot were aboard crash landed in Lake Pontchartrain late Saturday.

The first pilot was recovered Saturday, having received minor injuries. The names of the pilots have not been released.

The Pensacola News Journal reported that the plane was a Whiting Field Naval Air Station-stationed a T-34C Turbomenter conducting a routine cross-country training mission.

The Eighth Coast Guard District Command Center received a call at approximately 6:40 p.m. Saturday, from the air traffic control at the Lakefront Airport stating that a Navy T-34 training plane was no longer visible on radar. The Coast Guard launched two small boats and a helicopter.

The Coast Guard today has been searching a

5-by-7-mile area, with the center of the search approximately 1 mile north of Lakefront Airport.

Initial reports were that both pilots were clinging to the aircraft before it sank. Coast Guard crews have searched through the night.

Also searching are two small boats and crews from the Louisiana Department of Wildlife and Fisheries.

Weather conditions at the time of the crash were: air temperature 50 degrees Fahrenheit, water temperature 52 degrees Fahrenheit and the winds were calm.

The last time a Whiting Field plane went down was March 14, 2008, when a T-34C Turbomenter crashed into Chandler Mountain about 60 miles north of Birmingham. The 2008 crash killed Maj. David Yaggy, 34, of Pensacola, and 2nd Lt. Alexander Prezioso, 23, of Lake Worth, according to the Pensacola News Journal.

RICHARD SHELBY
ALABAMA

RANKING MEMBER—COMMITTEE ON BANKING, HOUSING,
& URBAN AFFAIRS

COMMITTEE ON APPROPRIATIONS

RANKING MEMBER—SUBCOMMITTEE ON COMMERCE,
JUSTICE, SCIENCE, & RELATED AGENCIES

SPECIAL COMMITTEE ON AGING

304 RUSSELL SENATE OFFICE BUILDING
WASHINGTON, DC 20510-0103
(202) 224-5744

<http://shelby.senate.gov>
E-mail: senator@shelby.senate.gov

United States Senate
WASHINGTON, DC 20510-0103

STATE OFFICES:

- 1800 FIFTH AVENUE NORTH
321 FEDERAL BUILDING
BIRMINGHAM, AL 35203
(205) 731-1384
- HUNTSVILLE INTERNATIONAL AIRPORT
1000 GLENN HEARN BOULEVARD
BOX 20127
HUNTSVILLE, AL 35824
(256) 772-0460
- 113 SAINT JOSEPH STREET
445 U.S. COURTHOUSE
MOBILE, AL 36602
(251) 694-4164
- 15 LEE STREET
FMJ FEDERAL BLDG., SUITE 208
MONTGOMERY, AL 36104
(334) 223-7303
- 1118 GREENSBORO AVENUE, #240
TUSCALOOSA, AL 35401
(205) 759-5047

January 29, 2010

Capt. E.L. Sadsad
Commanding Officer
U.S. Navy
NAS Whiting Field
7550 USS Essex Street Suite 200
Milton, FL 32570-6155

Dear Capt. Sadsad:

I am enclosing a letter I received from Mr. And Mrs. Tom Gibson.

Any information you may have regarding this matter would be appreciated in order for me to respond to my constituent's inquiry.

Sincerely,



Richard Shelby

RCS/trj
Enclosure

PLEASE RESPOND TO MY MOBILE OFFICE

Media Advisory

Naval Air Station Whiting Field Public Affairs Office

USS Essex Street, Suite 206, Milton FL 32570
(850) 623-7651 ext 30 Comm / (850) 623-7601 Fax

FOR IMMEDIATE RELEASE

**Dec. 24, 2009
Release # 09-72**

DEADLINE FOR RELEASE OF RUNWAY EXTENSION DRAFT EA EXTENDED UNTIL SPRING 2010

Authorization for potential purchase of properties associated with the runway extensions for Navy Outlying Fields (NOLFs) in Baldwin County, Ala. are still pending. The Environmental Assessment (EA) for the project cannot move forward until such authorization is granted. Naval Facilities Engineering Command and Naval Air Station Whiting Field will release further information on proposed options upon the completion of the review by the Office of the Secretary of the Navy.

Residents near the NOLFs Silverhill, Summerdale, and Barin are encouraged to continue to review the website, www.navyolfextensions.com, for current information on the project.

Naval Air Station Whiting Field and Training Air Wing FIVE, the base's major tenant command, provide primary flight training to nearly 60 percent of all Navy and Marine Corps aviators as well as U. S. Coast Guard aviators, select Air Force pilots and flight students from Allied foreign countries. The current training aircraft was introduced in 1977 and is nearing the end of its service life. The T-34C Turbo Mentor is slated to begin transitioning to the T-6B Texan later this year. The transition is expected to be complete by 2015.

The T-6B operates much more similarly to fleet aircraft than does the T-34, which will substantially enhance training operations at NAS Whiting Field.

The preliminary decision on the Environmental Assessment is scheduled to be made in early spring 2010.

Editor's Note: Media partners wishing more information should call the Naval Air Station Whiting Field Public Affairs Office at (850) 623-7651 ext. 1-30 or 850-501-0433 cell.

JO BONNER

1ST DISTRICT, ALABAMA

ASSISTANT REPUBLICAN WHIP

REPUBLICAN POLICY COMMITTEE

SERVING BALDWIN, CLARKE,
ESCAMBIA, MOBILE, MONROE AND
WASHINGTON COUNTIES

COMMITTEES:
APPROPRIATIONS
BUDGET
ETHICS

ALAN C. SPENCER
CHIEF OF STAFF

Congress of the United States
House of Representatives

Washington, DC 20515

February 13, 2009

Honorable Donald C. Winter
Secretary
U.S. Department of the Navy
1000 Navy Pentagon
Washington, DC 20350-1000

RE: Mr. David Lawrenz
P. O. Box 183
Gulf Shores, AL 36547

Dear Mr. Secretary:

The attached communication is submitted for your consideration.

If you will advise me of your action in this matter and have the letter returned to me with your reply, I will appreciate it.

With kindest regards, I am

Sincerely,



Jo Bonner
Member of Congress

JB:bp

Enclosure

PLEASE RESPOND TO: CONGRESSMAN JO BONNER
1302 NORTH MCKENZIE STREET
FOLEY, AL 36535

ATTN: BRYAN PARKER
E-mail: bryan.parker@mail.house.gov



February 6, 2009

Jo Bonner
U.S. House of Representatives
11 North Water St.
Suite 15290
Mobile, AL 36602

Enclosed is my letter to the US Navy opposing the expansion of Wolf Field in south Baldwin County.

Any help you can give is appreciated.

Sincerely,

A handwritten signature in blue ink, appearing to read "David Lawrenz", is written over the word "Sincerely,". The signature is fluid and cursive, with a large initial "D" and "L".

David Lawrenz



January 30, 2009

Mr. Sean Heath
Naval Facilities Engineering Command Southeast
Box 30
Building 903
NAS Jacksonville
Jacksonville, FL 32212

Dear Mr. Heath:

I was very pleased to meet you at the public planning meeting in Summerdale last night. Thank you, and I commend the United States Navy (the Navy) for having that meeting and for being so open.

The Navy has some very legitimate needs in accommodating its new training aircraft and I can appreciate the challenges you face. Providing our military pilots proper training is essential and I fully support that.

However, I oppose any facilities improvement option that expands WOLF Field in south Alabama or the expansion of operations there for the following reasons:

1. Conflict with the airspace of NAS Pensacola , both restricted space and East-West Runway operations
2. Conflict with restricted airspace of Pensacola Regional Airport
3. Conflict with airspace operations at Jack Edwards Airport located merely 8 miles west of Wolf Field in Gulf Shores
4. Conflict with existing community development and planned residential/resort development in this prime waterfront location
5. Substantially more wetlands filling required than any other alternative being considered

The issues of airspace conflict are easily verifiable by your capable staff and are already partially acknowledged by the Navy. The required wetlands filling and direct environmental impact is also, as you acknowledge, twice that of the

other considered alternative sites. The issue of conflict with surrounding development is nothing new to you either.

In 1986, I participated with the Whiting Field Command in reviewing and completing the then-new Naval Aviation Training Systems (NATS) plan. Marty Martin and Captain C.L. Lavinder were very good at bringing in community leaders to participate in that plan. That final plan presented in August of '86 was an acknowledgement of the logic of directing future training operations away from the rapidly growing coastal areas along the Gulf of Mexico.

Many of the then-existing and foreseeable problems for Navy aviation training were a result of the intense residential and commercial growth experienced along the gulf coast. By happenstance, these formerly unpopulated areas, in the early part of the 1900's, were the very areas chosen at that time by the Navy for location and construction of the presently existing outlying fields.

Wolf Field is a clear epitome of such a field. Wolf is located in an area adjacent to the waterfront of Perdido and Wolf Bay. The City of Orange Beach abuts the south boundary of Wolf Field and our company has an extensive Eco-Tourism development underway on the 2000 acres we own adjacent to Wolf Field. Furthermore, a major North-South transportation corridor is also under development that will traverse very close to the west boundary of Wolf.

For all of these reasons, Wolf is an inappropriate candidate for expansion and increased usage. A better compromise between military and public needs is to be found in the outlying fields north and away from the rapidly growing coastline.

I'd be very glad to provide you with more details or to attend any meetings that you suggest. Please call me any time at 251 979 4625.

Again, thanks for the way you all are handling this !

Sincerely,

David Lawrenz

JO BONNER
1ST DISTRICT, ALABAMA

ASSISTANT REPUBLICAN WHIP
REPUBLICAN POLICY COMMITTEE

SERVING BALDWIN, CLARKE,
ESCAMBIA, MOBILE, MONROE AND
WASHINGTON COUNTIES

Congress of the United States
House of Representatives

Washington, DC 20515
March 10, 2009

COMMITTEES:
APPROPRIATIONS
BUDGET
ETHICS
ALAN C. SPENCER
CHIEF OF STAFF

Rear Admiral Mark Ferguson
Chief of Legislative Affairs
U.S. Department of the Navy
1300 Navy Pentagon
Washington, DC 20350-1300

RE: Mr. Christopher Quinn
P.O. Box 2066
Gulfport, MS 39505

Dear Rear Admiral Ferguson:

The attached communication is submitted for your consideration.

If you will advise me of your action in this matter and have the letter returned to me with your reply, I will appreciate it.

With kindest regards, I am

Sincerely,



Jo Bonner
Member of Congress

JB:bp

Enclosure

PLEASE RESPOND TO: CONGRESSMAN JO BONNER
1302 NORTH MCKENZIE STREET
FOLEY, AL 36535

ATTN: BRYAN PARKER
E-mail: bryan.parker@mail.house.gov

09-03-24P07:50 RCVD

3 February 2009

Congressman Jo Bonner
2236 Rayburn House Office Building
Washington, DC 20515

Dear Congressman Bonner:

The U.S. Navy is in the process of preparing an Environmental Assessment, as they propose to lengthen runways at the NOLFs (Navy Outlying Landing Fields) within Baldwin County. The purpose is to accommodate the newer T-6 ~~turbocharged training aircraft.~~

020
Sir, this venture of the Navy will be quite detrimental to hundreds and hundreds of existing property owners. Not to mention the future residents, as Baldwin County is growing quite rapidly in these outlying areas. Many of the airfield expansions would destroy such things as family cemetery's, wetlands, and reduce property values as the "clear zones" invade people's property. On a personal note, the Silverhill expansion would affect our family property, where our mother still resides.

Could the Navy not explore other alternatives, such as expanding their use of controlled public use airports? The very aircraft concerned here, the T-6, heavily utilizes the Trent Lott International Airport in Pascagoula, MS. These lower traffic type airports thrive on the traffic count, and would certainly welcome the business.

I ask that you please look into this matter, and see if there is a different course of action the Navy can take that would not affect so many people. Thank you sir.

Sincerely,


Christopher R. Quinn

OFFICE OF THE GOVERNOR

BOB RILEY
GOVERNOR



STATE CAPITOL
MONTGOMERY, ALABAMA 36130

(334) 242-7100
FAX: (334) 242-0937

STATE OF ALABAMA

February 25, 2009

Ms. Camille Destafney
Regional Environmental Program Director
Naval Facilities Engineering Command Southeast
Box 30, Building 930
Jacksonville, FL 32212-0030

Mr. Sean Heath
Naval Facilities Engineering Command Southeast
Box 30, Building 930
NAS Jacksonville
Jacksonville, FL 32212

Dear Ms. Destafney and Mr. Heath,

I have become aware of the Navy's proposal to expand two of the four Navy Outlying Landing Fields (NOLFs) which serve Naval Air Station (NAS) Whiting in Florida, and which are located in Baldwin County, Alabama.

Alabama has always been supportive of our military, and you can rest assured that we will continue to do everything we can to assist the men and women in uniform who keep our country safe. It is also very important that we develop our state in a manner that protects our natural and economic resources. Accordingly, as Governor of Alabama, these possible expansions are of significant interest to me.

Compared to our neighboring states, Alabama has a very limited amount of Gulf coastline and coastal area. As Governor, it is my duty and responsibility to safeguard these limited coastal areas and to maximize their potential for the citizens of Alabama in terms of environmental preservation, recreational use, tourism and commercial potential.

It appears the Navy's current proposal runs directly counter to these interests. For example, the Navy's proposal to expand the Wolf NOLF could have a substantial effect on this State's continued economic development of its coastal area. The Wolf NOLF is located in the heart of this area and is surrounded by some of this State's most valuable coastal property. In addition, an alternative access road and toll bridge are planned through this area, connecting the City of Orange Beach to Interstate 10, which would further increase its economic development potential and maximize its potential for use by other citizens of Alabama.

The expansion of Wolf NOLF would directly affect both the economic potential and the potential use of this coastal area by the citizens of Alabama.

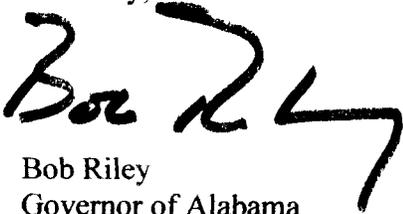
With the above in mind, I would appreciate your answers to the following:

1. News reports say that NAS Whiting has thirteen NOLF airfields. Please explain the process of how four of these airfields (all four of which are located in Alabama) were chosen for possible expansion and by what criteria were the other nine discarded?
2. Please quantify for me the positive economic impact, if any, that the expansion of one or more of these airfields would have on the Alabama Gulf Coast area.
3. Please explain the decision timeline and the construction timeline for this project.

Given the scarce amount of coastal area in Alabama, as you make your Environmental Assessment (EA) for this effort, I am also requesting that the Navy do a full Environmental Impact Statement (EIS) for each of the Alabama NOLFs that you are considering for expansion. I am especially insistent on an EIS for the Wolf NOLF, given it is located in the heart of Alabama's coastal area. I believe that a Finding of No Significant Impact (FONSI) is not appropriate for Wolf NOLF, and I will be very disappointed if such a decision is made.

Thank you for your attention to this matter. Please forward your answers to me as soon as reasonably convenient, so I can further evaluate your plans.

Sincerely,

A handwritten signature in black ink, appearing to read "Bob Riley". The signature is stylized and somewhat cursive, with a large initial "B" and "R".

Bob Riley
Governor of Alabama

CC: U.S. Senator Richard Shelby
U.S. Senator Jeff Sessions
U.S. Representative Jo Bonner

PRESS-REGISTER

LEGAL AFFIDAVIT

Account Number: 1098002

Name: GULF SOUTH RESEARCH CORP.

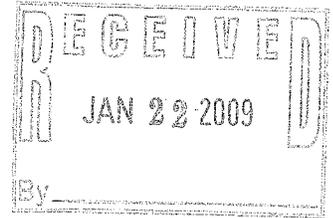
Period Ending: 01/19/09

Sale Rep: Christine Bevins

Billing Inquiries Please Call: (251) 219-5424 or
(251) 219-5405

GULF SOUTH RESEARCH CORP.
8081 GSRI AVENUE
BATON ROUGE, LA 70820

- Press - Register
Lock Box 1712
Mobile, AL 36633-1712



START DATE	END DATE	AD NUMBER	P.O. NUMBER / DESCRIPTION	SAU SIZE	BILLED UNITS	TIMES RUN	AMOUNT
01/16	01/18	I01445617-01162009	NAVY OUTLYING FIELDS/PUBLIC MEETING NOTIFICATI	329 Words	329	3	338.94
TOTAL:							338.94

Mecia Carlson being sworn, says that she is bookkeeper of Press-Register which publishes a daily newspaper in the City and County of Mobile, State of Alabama: and attached notice appeared in the issue of

Press-Register 1/16/2009, 1/17/2009, 1/18/2009

Mecia Carlson
Sworn to and subscribed before me this 19th day of January 2009

Brandi W. Cook
NOTARY PUBLIC

FOR QUESTIONS CONCERNING THIS AFFIDAVIT,
PLEASE CALL MECIA CARLSON AT (251) 219-5418.
YOU CAN PLACE A LEGAL NOTICE BY EMAIL OR FAX:
LEGALS@PRESS-REGISTER.COM OR FAX# (251) 219-5037

PUBLIC MEETING NOTIFICATION

Environmental Assessment for Providing T-6 JPATS Solo Capability at Navy Outlying Fields, Naval Air Station Whiting Field, Florida

The U.S. Navy is preparing an Environmental Assessment for the overlay and extension of runway surfaces at existing Navy outlying landing fields (NOLF) to provide two 5,000-foot long runways with 1,000-foot long overruns and 2,000-foot long clear zones at each end of the runways in compliance with T-6 solo landing requirements, and two 4,000-foot long runways with the same overruns and clear zones to accommodate dual T-6 landing requirements. NOLFs being considered are Barrin, Summerdale, Silverhill and Wolf, all located in Baldwin County, Alabama. The proposed action is necessary to facilitate the transition of Navy flight training at Naval Air Station Whiting Field from the current T-34 aircraft to the new Joint Primary Aircraft Training System (JPATS) T-6 aircraft, which requires longer runways for safe landing.

The modifications to the selected NOLFs would include the purchase of additional private property and easements, removal of some structures, relocation of some occupants and realignment of some roadways.

The U.S. Navy is currently in the scoping process to obtain information or data that would facilitate the decision making process. Your participation in the decision making process is important, and you are encouraged to provide input to the environmental review process. A public meeting to present the details of the proposed NOLF modifications and the potential impacts is being held at the Summerdale Community Center, 300 West Jackson, Summerdale, Alabama on January 29, 2009 from 6 to 9 pm. The U.S. Navy requests your presence at this meeting to discuss the proposed project and

to receive answers to any questions you might have concerning the project.

Maps showing the project details can be obtained by request from: Mr. Sean Heath, Naval Facilities Engineering Command Southeast, Box 30, Building 903, NAS Jacksonville, Jacksonville FL 32212; by email to Sean.Heath@navy.mil or via facsimile at (904) 542-6345.

PRESS REGISTER
JAN. 16, 17, 18, 2009

**PUBLIC MEETING
NOTIFICATION**

Environmental Assessment for
Providing T-6 JPATS Solo Capa-
bility at Navy Outlying Fields,
Naval Air Station Whiting Field,
Florida

The U.S. Navy is preparing an Environmental Assessment for the overlay and extension of runway surfaces at existing Navy outlying landing fields (NOLF) to provide two 5,000-foot long runways with 1,000-foot long overruns and 2,000-foot long clear zones at each end of the runways in compliance with T-6 solo landing requirements, and two 4,000-foot long runways with the same overruns and clear zones to accommodate dual T-6 landing requirements. NOLFs being considered are Barin, Summerdale, Silverhill and Wolf, all located in Baldwin County, Alabama. The proposed action is necessary to facilitate the transition of Navy flight training at Naval Air Station Whiting Field from the current T-34 aircraft to the new Joint Primary Aircraft Training System (JPATS) T-6 aircraft, which requires longer runways for safe landing.

The modifications to the selected NOLFs would include the purchase of additional private property and easements, removal of some structures, relocation of some occupants and realignment of some roadways.

The U.S. Navy is currently in the scoping process to obtain information or data that would facilitate the decision making process. Your participation in the decision making process is important, and you are encouraged to provide input to the environmental review process. A public meeting to present the details of the proposed NOLF modifications and the potential impacts is being held at the Summerdale Community Center, 300 West Jackson, Summerdale, Alabama on January 29, 2009 from 6 to 9 pm. The U.S. Navy requests your presence at this meeting to discuss the proposed project and to receive answers to any questions you might have concerning the project.

Maps showing the project details can be obtained by request from: Mr. Sean Health, Naval Facilities Engineering Command Southeast, Box 3D, Building 503, NAS Jacksonville, Jacksonville FL 32212, by email to Sean.Health@navy.mil or via facsimile at (904) 542-6345.

PRESS REGISTER
JAN. 16, 17, 18, 2009

ATTN: Steve

225-761-8077



DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST
JACKSONVILLE, FL 32212-0030

5090
Ser N45/003
January 16, 2009

Representative Stephen McMillan
P.O. Box 776
Bay Minette, AL 36507

Dear Mr. McMillan:

SUBJ: ENVIRONMENTAL ASSESSMENT FOR THE EXTENSION OF RUNWAYS AT
NAVY OUTLYING LANDING FIELDS TO ACCOMMODATE THE T-6 JOINT
PRIMARY AIRCRAFT TRAINING SYSTEM AT NAS WHITING FIELD,
FLORIDA

NAS Whiting Field will begin the transition of Navy primary flight training from the current T-34 aircraft to the new Joint Primary Aircraft Training System (JPATS) T-6 aircraft in 2009. The T-6 landing requirements will require expansion of Navy outlying landing fields (NOLFs), involving extension of runways and acquisition of additional clear zones for flight safety, in order to fulfill the training mission at NAS Whiting Field. NOLFs Barin, Summerdale, Silverhill, and Wolf, all located in Baldwin County, Alabama, are being considered for expansion. The expansion will require acquisition of private property adjacent to two or more fields, removal of existing structures and vegetation, and relocation of some roads. An Environmental Assessment (EA) is being prepared to assess the potential impacts of each of the alternatives for the proposed action on the human and natural environment and to provide guidance to the Navy for choosing the preferred NOLFs, in accordance with the National Environmental Policy Act (NEPA).

A public meeting will be held in the area to present the project to local residents and local officials, and to receive comments and concerns regarding the proposed action alternatives. The meeting is scheduled for 6:00 to 9:00 pm on January 29, 2009 at the Summerdale Community Center, 300 West Jackson, Summerdale, AL. Attached is a map showing the locations of the fields being considered for expansion.

5090
Ser N45/003
January 16, 2009

Your comments and concerns regarding the proposed action are welcome in order to fully evaluate the impacts of the project. Requests for further project details or questions can be directed to: Sean Heath, Naval Facilities Engineering Command Southeast, Box 30, Building 903, NAS Jacksonville, Jacksonville FL 32212: or by email to: Sean.Heath@navy.mil.

Sincerely,



Camille Destafney
Regional Environmental
Program Director

Enclosure: (1)



DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST
JACKSONVILLE, FL 32212-0030

5090
Ser N45/004
January 16, 2009

Senator Lee Pittman
Pittman Tractor Company, Inc.
P.O. Box 1812
Daphne, AL 36526

Dear Mr. Pittman:

SUBJ: ENVIRONMENTAL ASSESSMENT FOR THE EXTENSION OF RUNWAYS AT
NAVY OUTLYING LANDING FIELDS TO ACCOMMODATE THE T-6 JOINT
PRIMARY AIRCRAFT TRAINING SYSTEM AT NAS WHITING FIELD,
FLORIDA

NAS Whiting Field will begin the transition of Navy primary flight training from the current T-34 aircraft to the new Joint Primary Aircraft Training System (JPATS) T-6 aircraft in 2009. The T-6 landing requirements will require expansion of Navy outlying landing fields (NOLFs), involving extension of runways and acquisition of additional clear zones for flight safety, in order to fulfill the training mission at NAS Whiting Field. NOLFs Barin, Summerdale, Silverhill, and Wolf, all located in Baldwin County, Alabama, are being considered for expansion. The expansion will require acquisition of private property adjacent to two or more fields, removal of existing structures and vegetation, and relocation of some roads. An Environmental Assessment (EA) is being prepared to assess the potential impacts of each of the alternatives for the proposed action on the human and natural environment and to provide guidance to the Navy for choosing the preferred NOLFs, in accordance with the National Environmental Policy Act (NEPA).

A public meeting will be held in the area to present the project to local residents and local officials, and to receive comments and concerns regarding the proposed action alternatives. The meeting is scheduled for 6:00 to 9:00 pm on January 29, 2009 at the Summerdale Community Center, 300 West Jackson, Summerdale, AL. Attached is a map showing the locations of the fields being considered for expansion.

5090
Ser N45/004
January 16, 2009

Your comments and concerns regarding the proposed action are welcome in order to fully evaluate the impacts of the project. Requests for further project details or questions can be directed to: Sean Heath, Naval Facilities Engineering Command Southeast, Box 30, Building 903, NAS Jacksonville, Jacksonville FL 32212: or by email to: Sean.Heath@navy.mil.

Sincerely,



Camille Destafney
Regional Environmental
Program Director

Enclosure: (1)



DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST
JACKSONVILLE, FL 32212-0030

5090
Ser N45/002
January 16, 2009

The Honorable Jo Bonner
Member of Congress
1302 North McKenzie Street
Foley, AL 36535

Dear Congressman Bonner:

SUBJ: ENVIRONMENTAL ASSESSMENT FOR THE EXTENSION OF RUNWAYS AT
NAVY OUTLYING LANDING FIELDS TO ACCOMMODATE THE T-6 JOINT
PRIMARY AIRCRAFT TRAINING SYSTEM AT NAS WHITING FIELD,
FLORIDA

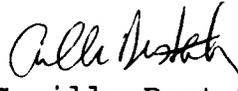
NAS Whiting Field will begin the transition of Navy primary flight training from the current T-34 aircraft to the new Joint Primary Aircraft Training System (JPATS) T-6 aircraft in 2009. The T-6 landing requirements will require expansion of Navy outlying landing fields (NOLFs), involving extension of runways and acquisition of additional clear zones for flight safety, in order to fulfill the training mission at NAS Whiting Field. NOLFs Barin, Summerdale, Silverhill, and Wolf, all located in Baldwin County, Alabama, are being considered for expansion. The expansion will require acquisition of private property adjacent to two or more fields, removal of existing structures and vegetation, and relocation of some roads. An Environmental Assessment (EA) is being prepared to assess the potential impacts of each of the alternatives for the proposed action on the human and natural environment and to provide guidance to the Navy for choosing the preferred NOLFs, in accordance with the National Environmental Policy Act (NEPA).

A public meeting will be held in the area to present the project to local residents and local officials, and to receive comments and concerns regarding the proposed action alternatives. The meeting is scheduled for 6:00 to 9:00 pm on January 29, 2009 at the Summerdale Community Center, 300 West Jackson, Summerdale, AL. Attached is a map showing the locations of the fields being considered for expansion.

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Ser N45/002
January 16, 2009

Your comments and concerns regarding the proposed action are welcome in order to fully evaluate the impacts of the project. Requests for further project details or questions can be directed to: Sean Heath, Naval Facilities Engineering Command Southeast, Box 30, Building 903, NAS Jacksonville, Jacksonville FL 32212: or by email to: Sean.Heath@navy.mil.

Sincerely,



Camille Destafney
Regional Environmental
Program Director

Enclosure: (1)



DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST
JACKSONVILLE, FL 32212-0030

5090
Ser N45/005
January 16, 2009

The Honorable Jeff Sessions
United States Senate
Colonial Bank Center, Suite 2300-A
41 W. I-65 Service Road N.
Mobile, AL 36608

Dear Senator Sessions:

SUBJ: ENVIRONMENTAL ASSESSMENT FOR THE EXTENSION OF RUNWAYS AT
NAVY OUTLYING LANDING FIELDS TO ACCOMMODATE THE T-6 JOINT
PRIMARY AIRCRAFT TRAINING SYSTEM AT NAS WHITING FIELD,
FLORIDA

NAS Whiting Field will begin the transition of Navy primary flight training from the current T-34 aircraft to the new Joint Primary Aircraft Training System (JPATS) T-6 aircraft in 2009. The T-6 landing requirements will require expansion of Navy outlying landing fields (NOLFs), involving extension of runways and acquisition of additional clear zones for flight safety, in order to fulfill the training mission at NAS Whiting Field. NOLFs Barin, Summerdale, Silverhill, and Wolf, all located in Baldwin County, Alabama, are being considered for expansion. The expansion will require acquisition of private property adjacent to two or more fields, removal of existing structures and vegetation, and relocation of some roads. An Environmental Assessment (EA) is being prepared to assess the potential impacts of each of the alternatives for the proposed action on the human and natural environment and to provide guidance to the Navy for choosing the preferred NOLFs, in accordance with the National Environmental Policy Act (NEPA).

A public meeting will be held in the area to present the project to local residents and local officials, and to receive comments and concerns regarding the proposed action alternatives. The meeting is scheduled for 6:00 to 9:00 pm on January 29, 2009 at the Summerdale Community Center, 300 West Jackson, Summerdale, AL. Attached is a map showing the locations of the fields being considered for expansion.

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Ser N45/005
January 16, 2009

Your comments and concerns regarding the proposed action are welcome in order to fully evaluate the impacts of the project. Requests for further project details or questions can be directed to: Sean Heath, Naval Facilities Engineering Command Southeast, Box 30, Building 903, NAS Jacksonville, Jacksonville FL 32212: or by email to: Sean.Heath@navy.mil.

Sincerely,



Camille Destafney
Regional Environmental
Program Director

Enclosure: (1)



DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST
JACKSONVILLE, FL 32212-0030

5090
Ser N45/001
January 16, 2009

The Honorable Richard Shelby
United States Senate
308 U.S. Court House
113 St. Joseph Street
Mobile, AL 36602

Dear Senator Shelby:

SUBJ: ENVIRONMENTAL ASSESSMENT FOR THE EXTENSION OF RUNWAYS AT
NAVY OUTLYING LANDING FIELDS TO ACCOMMODATE THE T-6 JOINT
PRIMARY AIRCRAFT TRAINING SYSTEM AT NAS WHITING FIELD,
FLORIDA

NAS Whiting Field will begin the transition of Navy primary flight training from the current T-34 aircraft to the new Joint Primary Aircraft Training System (JPATS) T-6 aircraft in 2009. The T-6 landing requirements will require expansion of Navy outlying landing fields (NOLFs), involving extension of runways and acquisition of additional clear zones for flight safety, in order to fulfill the training mission at NAS Whiting Field. NOLFs Barin, Summerdale, Silverhill, and Wolf, all located in Baldwin County, Alabama, are being considered for expansion. The expansion will require acquisition of private property adjacent to two or more fields, removal of existing structures and vegetation, and relocation of some roads. An Environmental Assessment (EA) is being prepared to assess the potential impacts of each of the alternatives for the proposed action on the human and natural environment and to provide guidance to the Navy for choosing the preferred NOLFs, in accordance with the National Environmental Policy Act (NEPA).

A public meeting will be held in the area to present the project to local residents and local officials, and to receive comments and concerns regarding the proposed action alternatives. The meeting is scheduled for 6:00 to 9:00 pm on January 29, 2009 at the Summerdale Community Center, 300 West Jackson, Summerdale, AL. Attached is a map showing the locations of the fields being considered for expansion.

5090
Ser N45/001
January 16, 2009

Your comments and concerns regarding the proposed action are welcome in order to fully evaluate the impacts of the project. Requests for further project details or questions can be directed to: Sean Heath, Naval Facilities Engineering Command Southeast, Box 30, Building 903, NAS Jacksonville, Jacksonville FL 32212: or by email to: Sean.Heath@navy.mil.

Sincerely,



Camille Destafney
Regional Environmental
Program Director

Enclosure: (1)



DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST
JACKSONVILLE, FL 32212-0030

5090
Ser N45/006
January 16, 2009

PUBLIC MEETING NOTIFICATION

Dear Citizen:

SUBJ: ENVIRONMENTAL ASSESSMENT FOR THE EXTENSION OF RUNWAYS AT
NAVY OUTLYING LANDING FIELDS TO ACCOMMODATE THE T-6 JOINT
PRIMARY AIRCRAFT TRAINING SYSTEM AT NAS WHITING FIELD,
FLORIDA

The U.S. Navy is preparing an Environmental Assessment (EA) to extend the runways at Navy outlying landing fields (NOLF) to accommodate the T-6 Joint Primary Aircraft Training System (JPATS). Fundamental to the development of this proposal is the requirement to analyze the potential impacts on the natural and human environment that could occur as a result of this proposed action, as directed by the National Environmental Policy Act (NEPA). The EA will evaluate alternatives for the proposed action that meet the purpose and need for action. The intent of the EA is to assess and disclose the known and potential environmental consequences, both beneficial and adverse, of the modifications and construction at the NOLFs.

The proposed action is necessary to facilitate the transition of Navy flight training at Naval Air Station Whiting Field (NASWF) from the current T-34 aircraft to the new JPATS T-6 aircraft, which requires longer runways for safe landing. The T-6 requires a minimum runway length of 4,000 ft for dual operations (two pilots) and 5,000 ft for solo operations. In order to meet the mission requirements for Training Wing 5 (NAS Whiting Field), two or more NOLFs must have their runways extended. The proposed action would provide up to 5,000-foot long runways with 1,000-foot long overruns and 2,000-foot long clear zones at the end of each runway. The first T-6 aircraft will begin arriving at NASWF in 2009, with full transition to the T-6 aircraft by 2015.

The NOLFs that meet the purpose and need for the action and are being considered are Barin, Choctaw, Silverhill, Summerdale, and Wolf. For all alternatives, the proposed action would

5090
Ser N45/006
January 16, 2009

require acquisition of land and easements for runways, overruns and clear zones. The acquired land would be cleared of all trees, stumps, structures and debris and graded according to DoD regulations.

The U.S. Navy is currently in the scoping process to obtain information or data that would facilitate the decision making process. Your participation as a potentially affected occupant or neighbor to the proposed NOLF modifications is important to the U.S. Navy. You are encouraged to provide input to the environmental review process. Furthermore, the U.S. Navy is requesting information you may have pertaining to the natural and cultural resources at the proposed project sites. A public meeting to present the details of the proposed NOLF modifications, alternatives and the potential impacts on the human and natural environment is being held at the Summerdale Community Center, 300 West Jackson, Summerdale, Alabama on January 29, 2009 from 6:00 pm to 9:00 pm. The U.S. Navy will discuss the proposed project and take any comments you might have concerning the project at this meeting. The Draft EA will also be available for public comments at a later date. If you are unable to attend, comments and requests for information can be sent to: Mr. Sean Heath, Naval Facilities Engineering Command Southeast, Box 30, Building 903, NAS Jacksonville, Jacksonville FL 32212; or by email to Sean.Heath@navy.mil or via facsimile at (904) 542-6345.

Your assistance in this project scoping effort is appreciated, and we look forward to discussing the project and any concerns you might have at the public meeting.

Sincerely,



Camille Destafney
Regional Environmental
Program Director

Summary Table of Comments Received from the Public Scoping Meeting

NOLF of Concern and Number of Comments Received					Comment Summary
General	Barin	Summerdale	Silverhill	Wolf	
2	9		9	67	Concerned about existing and potential increased noise
2	4		11	13	Concerned about increased accident potential
2	2	2	4	24	Concerned about impact on property values
	3	1		141	General support for the Navy, the flight training and field expansion
	3		3	15	Opposed to any more training at the field
	1	5	6	2	Concerned about loss of property
		1			Concerned about leased farm acreage and irrigation equipment use
	1	1	3	40	Suggested that the Navy go somewhere else to train
	3		1	2	Concerned about low-flying aircraft
			2		Suggested individual meetings for each field
	5		2	9	Concerned about wetland impacts and wildlife impacts at the field
2				27	Concerned about economic development, no benefit for the area
		1	1		Meeting was not sufficiently advertised
	4		1		Meeting space was too small for the attendance generated
	2		3		Concerned about private property access
	2	3		6	Concerned about road relocation and impacts
	1	1			Concerned about property and relocation reimbursement costs
1				29	Worried about the effect on tourism in the area
				9	Concerned about air traffic conflicts at nearby airports
5	1	3	6	3	Need more information about the project
		1		2	No opinion for or against NOLF expansion

A total of 367 comments were received as a result of the public scoping meeting.

Comments were received at the meeting on forms provided, by mail, by FAX and by email.

Approximately 200+ persons were in attendance at the meeting, and 141 registration cards were completed.

Some comments addressed several topics of concern, and those are reflected by the comment numbers in the table.

Copies of comments received from public are not included in this Appendix, but are kept on file for future review.



1400 Coliseum Blvd. 36110-2059 ♦ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700
FAX (334) 271-7950

January 29, 2009

Mr. Sean Heath
Naval Facilities Engineering Command Southeast
Box 30, Building 903
NAS Jacksonville
Jacksonville, FL 32212

RE: Navy Outlying Landing Fields (NOLF) in Escambia and Baldwin Counties, AL
Proposed Environmental Assessment
Overlay and Extend Runway Surfaces at Existing NOLF

Dear Mr. Heath:

The Department has reviewed a letter received from Gulf South Research Corporation (GSRC) for review of the above-referenced proposed construction activities in Escambia and Baldwin Counties, Alabama.

Based upon the information submitted, it has been determined that the referenced projects are located outside the coastal area of Alabama. Therefore, the projects as proposed are not subject to the requirements of the Alabama Coastal Area Management Program and no further coordination with ADEM's Coastal Section office is necessary. However, for any land disturbance activity that equals or exceeds one acre(s) or is part of a larger common plan for development that may eventually exceed one acre, an NPDES storm water permit must be obtained through ADEM's Mining/Nonpoint Source Section. Please contact Dale Mapp at (334) 271-7700 for further information about NPDES permitting.

If wetland areas are identified on the property, the Regulatory Division of the U.S. Army Corps of Engineers Mobile District office should be contacted at (251) 690-2658 to determine the Federal permitting requirements for the proposed construction activities.

Please contact me in the Coastal/Facility Section office at (251) 432-6533 if you have any questions regarding these matters.

Sincerely,



Allen Phelps
Coastal/Facility Section





United States Department of the Interior

FISH AND WILDLIFE SERVICE

1208-B Main Street
Daphne, Alabama 36526

JAN 30 2009

IN REPLY REFER TO:
2009-TA-0212

Mr. Sean Heath
Naval Facilities Engineering Command Southeast
Box 30, Building 903
Naval Air Station Jacksonville
Jacksonville, FL 32212

Dear Mr. Heath:

Thank you for your letter, dated January 16, 2009, concerning a proposal by the U.S. Navy to overlay and extend runway surfaces at existing Navy outlying landing fields (NOLF) in Baldwin County Alabama. The following comments are provided in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. et seq.) and the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

Our records do not indicate that species protected under the Endangered Species Act (ESA) exist on the NOLF's indicated in your letter. However, we are concerned that this proposal falls within the non-listed eastern range of the gopher tortoise (*Gopherus polyphemus*) which is a federal "species of concern" and protected under State of Alabama non-game regulations. The State of Alabama, Department of Conservation and Natural Resources (ADCNR), Wildlife and Freshwater Fisheries is currently developing guidelines for protecting this species and its habitats. While it is not within our mandate to address non-listed species, we request that you complete a survey for this species and report you finding to our agency and ADCNR. Your contact at ADCNR is Mr. Mark Sasser and he can be reached at (334)242-3469.

The gopher tortoise is the only tortoise indigenous to the southeastern United States, and its range extends from southeastern South Carolina south through much of Florida and west to southeastern Louisiana. The range in Alabama is generally south of a line drawn from northern Choctaw County to Phenix City, Alabama, with the listed range encompassing Choctaw, Washington and Mobile Counties. The tortoise is dark-brown to grayish-black with large hind feet, shovel-like front feet, and a yellowish, hinge less plastron. It lives for as long as 40-60 years and perhaps longer. The tortoise spends a significant portion of its life in its burrow. The tortoise is considered a cornerstone species within its preferred ecosystem because the burrow provides habitat and refuge for over 300 species of wildlife.

Through working together to conserve tortoises in the eastern portion of their range, we may be able to preclude them from being listed under the ESA in the future. If you have any questions or need additional information, please contact Mr. Bruce Porter of my staff at (251) 441-5864 or via email at bruce_porter@fws.gov.

Sincerely,



Acting
Rob W. Tawes
Field Supervisor
Alabama Ecological Services Field Office

cc: Mr. Jim McHugh, ADCNR, Montgomery, AL
Mark Sasser, ADCNR, Montgomery, AL

PHONE: 251-441-5181



FAX: 251-441-6222

OFFICE OF THE GOVERNOR

BOB RILEY
GOVERNOR



STATE CAPITOL
MONTGOMERY, ALABAMA 36130

(334) 242-7100
FAX: (334) 242-0937

STATE OF ALABAMA

February 25, 2009

Ms. Camille Destafney
Regional Environmental Program Director
Naval Facilities Engineering Command Southeast
Box 30, Building 930
Jacksonville, FL 32212-0030

Mr. Sean Heath
Naval Facilities Engineering Command Southeast
Box 30, Building 930
NAS Jacksonville
Jacksonville, FL 32212

Dear Ms. Destafney and Mr. Heath,

I have become aware of the Navy's proposal to expand two of the four Navy Outlying Landing Fields (NOLFs) which serve Naval Air Station (NAS) Whiting in Florida, and which are located in Baldwin County, Alabama.

Alabama has always been supportive of our military, and you can rest assured that we will continue to do everything we can to assist the men and women in uniform who keep our country safe. It is also very important that we develop our state in a manner that protects our natural and economic resources. Accordingly, as Governor of Alabama, these possible expansions are of significant interest to me.

Compared to our neighboring states, Alabama has a very limited amount of Gulf coastline and coastal area. As Governor, it is my duty and responsibility to safeguard these limited coastal areas and to maximize their potential for the citizens of Alabama in terms of environmental preservation, recreational use, tourism and commercial potential.

It appears the Navy's current proposal runs directly counter to these interests. For example, the Navy's proposal to expand the Wolf NOLF could have a substantial effect on this State's continued economic development of its coastal area. The Wolf NOLF is located in the heart of this area and is surrounded by some of this State's most valuable coastal property. In addition, an alternative access road and toll bridge are planned through this area, connecting the City of Orange Beach to Interstate 10, which would further increase its economic development potential and maximize its potential for use by other citizens of Alabama.

Ms. Destafney and Mr. Heath
February 25, 2009
Page 2

The expansion of Wolf NOLF would directly affect both the economic potential and the potential use of this coastal area by the citizens of Alabama.

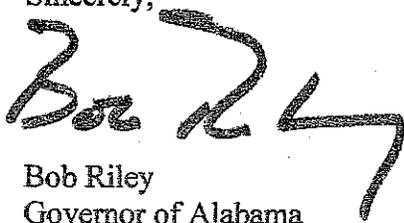
With the above in mind, I would appreciate your answers to the following:

1. News reports say that NAS Whiting has thirteen NOLF airfields. Please explain the process of how four of these airfields (all four of which are located in Alabama) were chosen for possible expansion and by what criteria were the other nine discarded?
2. Please quantify for me the positive economic impact, if any, that the expansion of one or more of these airfields would have on the Alabama Gulf Coast area.
3. Please explain the decision timeline and the construction timeline for this project.

Given the scarce amount of coastal area in Alabama, as you make your Environmental Assessment (EA) for this effort, I am also requesting that the Navy do a full Environmental Impact Statement (EIS) for each of the Alabama NOLFs that you are considering for expansion. I am especially insistent on an EIS for the Wolf NOLF, given it is located in the heart of Alabama's coastal area. I believe that a Finding of No Significant Impact (FONSI) is not appropriate for Wolf NOLF, and I will be very disappointed if such a decision is made.

Thank you for your attention to this matter. Please forward your answers to me as soon as reasonably convenient, so I can further evaluate your plans.

Sincerely,



Bob Riley
Governor of Alabama

CC: U.S. Senator Richard Shelby
U.S. Senator Jeff Sessions
U.S. Representative Jo Bonner



February 18, 2009

Sean Heath
U.S. Navy
Naval Facilities Engineering Command Southeast
Box 30, Building 930
NAS Jacksonville
Jacksonville, FL 32212

Mr. Heath,

This letter is in opposition of the proposed expansion of the Wolf Field site in Baldwin County, Alabama. In consideration of the many training sites along the upper Gulf of Mexico, as Mayor I wish to express my concern and opposition to the plans that have been presented related to Wolf Field.

The State of Alabama has only two coastal counties, Baldwin and Mobile County. Baldwin County, which the City of Orange Beach is located within, is a major economic engine for the entire state generating over \$1.5 Billion in travel related expenditures annually. Tourism to the area generates over 3.8 Million visitors each year with the value and use of the existing lands at a premium. Expanding a training airfield as much as 40% can bring a negative impact on the surrounding properties which are prime to the City, County and State in generating those tourism tax dollars.

We respectfully ask the U.S. Navy Engineering Division to consider other options along the gulf coast before they consider Wolf Field as a site for expansion. The City of Orange Beach appreciates the work and service of our pilots and crews associated with our national defense and are here to offer our support should you need any assistance. As your plans move forward with the new trainer aircraft we wish you the best.

Sincerely,

Tony Kennon
Mayor

cc: Governor Bob Riley
US Senator Richard Shelby
US Senator Jeff Sessions
US Congressman Jo Bonner

kg

ELBERTA



fur das gute Leben
"for the good life"

MAYOR:
MARVIN WILLIAMS

TOWN OF ELBERTA

COUNCIL:

STEVE KIRKPATRICK
ROSELEE MUELLER
RANDY KURTTIS
DONNA WOERNER
DON KOONTZ, SR.

CLERK/TREASURER
SANDY GERMANY

February 10, 2009

Mr. Sean Heath
Navy Facilities Engineering Command S.E.
Box 30, Building 390
NAS Jacksonville
Jacksonville, FL 32212

RE: OLF Wolf – County Road 95, Elberta, Alabama

Dear Mr. Heath:

It was a pleasure to attend the recent public hearing in Summerdale regarding the above referenced. In response to your request for written comments, I offer the following:

- Baldwin County is recognized as the fastest growing county in the State with predominate growth occurring south of U.S. Highway 98.
- Elberta's future growth and economic strength is dependent upon expansion of our boundaries to the East and South of U.S. Highway 98.
- Presently, our corporate boundaries are appx. 1.5 miles to the west of OLF Wolf. This boundary includes many acres of waterfront property awaiting development into residential, commercial and recreational uses. Some of the residential uses may include high-rise buildings similar to those found in our neighboring communities of Orange Beach, Gulf Shores and Perdido Key, FL.
- Current area growth plans include modification of County Road 95 with the construction of a new high-rise bridge into the City of Orange Beach.
- Jack Edwards Airport in Gulf Shores as well as the Pensacola Regional Airport have established flight patterns near the OLF Wolf area.
- Compared to our neighboring states, Alabama has very little coastal area. These areas, which include numerous acres of wetlands, need to be preserved as open spaces and recreational uses for our community.
- The expansion of OLF Wolf will not bring permanent jobs or tax revenue to our community. We need development that will produce jobs and tax revenue.
- Expansion and increased use of OLF Wolf may de-value the attractiveness of our coastal area thereby reducing tourism which is a major financial contributor to the entire State of Alabama.

On behalf of Elberta's current and future citizens, I respectfully request your consideration of the above comments. Please feel free to contact me with any questions or if I may be of additional assistance.

Sincerely,

A handwritten signature in black ink that reads "Marvin Williams". The signature is written in a cursive style with a horizontal line at the end.

Marvin Williams, Mayor

MW/cw

Cc: Honorable Governor Bob Riley
Honorable Jo Bonner
Honorable Richard Shelby
Honorable Jeff Sessions
Honorable David Bishop