FINAL

ENVIRONMENTAL ASSESSMENT FOR AVIATION FOREIGN INTERNAL DEFENSE BEDDOWN (AVFID) AT DUKE FIELD EGLIN AIR FORCE BASE, FLORIDA

DEPARTMENT OF THE AIR FORCE

JULY 2012

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FINAL
FINDING OF NO SIGNIFICANT IMPACT
AVIATION FOREIGN INTERNAL (AVFID) DEFENSE
BEDDOWN AT DUKE FIELD
EGLIN AIR FORCE BASE, FLORIDA

Pursuant to Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of the National Environment Policy Act (NEPA) (40 Code of Federal Regulations [CFR] Parts 1500-1508), 42 United States Code (USC) § 4321, et seq., and the Air Force Environmental Impact Analysis Process as promulgated in 32 CFR Part 989, the US Air Force (USAF) has prepared an Environmental Assessment (EA) to analyze potential environmental consequences associated with the proposed Aviation Foreign Internal Defense (AvFID) fixed-wing aircraft beddown and associated construction projects at Duke Field, Eglin Air Force Base (AFB).

PURPOSE AND NEED

Purpose: The *purpose* of the Proposed Action is three-fold: 1) to provide highly trained, rapidly deployable, combat-ready Combat Aviation Advisor (CAA) squadrons to support foreign partner nations as part of the AvFID mission; 2) to consolidate facilities in order to maximize operations and maintenance facility efficiency and respond to physical needs associated with the AvFID beddown; and 3) enable necessary support facilities to meet current environmental, safety, and security standards (e.g., *United Facilities Criteria: DoD Minimum Anti-terrorism Standards for Buildings*).

Need: The *need* for the Proposed Action is driven by the 2010 Quadrennial Defense Review (QDR), which directed Air Force Special Operations Command (AFSOC) to strengthen and expand its capabilities for training partner nation aviation forces. Core AvFID objectives are to train, advise, and assist foreign partner nations in the areas of day and night operations in low-level navigation, airdrop, air/land resupply, leaflet drop, medical/casualty evacuation, personnel recovery, visual meteorological condition formation, aerial reconnaissance/intelligence, airborne command and control, convoy escort, border patrol, counter-narcotics, and humanitarian assistance and disaster relief. The subsequent *Resource Management Decision 700* directed AFSOC to purchase 16 light, twin-engine, fixed-wing aircraft and provided funding for associated construction projects to support AFSOC's AvFID growth.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

Proposed Action: AFSOC proposes to stand up a combat-ready CAA squadron and Special Operations Maintenance Squadron (SOMXS) at Duke Field, including the beddown of an inventory of 16 light, twin-engine, fixed-wing

aircraft. Nine (9) of the 16 aircraft could be continuously deployed around the world to various Theater Special Operations Commands to support the AvFID mission to advise and assist foreign partner nations. A Reserve Component squadron would be established and maintained at Duke Field to support the proposed AvFID training requirements and operational mission. Personnel from the 919th Special Operations Wing (919 SOW) would be re-missioned to support the Reserve Component CAA squadron and SOMXS following phase-out of the MC-130E Combat Talon aircraft. In addition, the Proposed Action includes new facility construction, modifications to existing facilities, and associated infrastructure development necessary to facilitate and support the proposed AvFID beddown at Duke Field.

No-Action Alternative: Under the No-Action Alternative, the proposed AvFID beddown and short-term construction, relocation, and renovation projects would not be implemented and AFSOC would be unable to strengthen and expand its capabilities for training partner-nation aviation forces as directed by the 2010 Quadrennial Defense Review. The CEQ regulations stipulate that the No-Action Alternative must be analyzed to assess any environmental consequences that may occur if the Proposed Action is not implemented.

ENVIRONMENTAL IMPACTS

Environmental Analysis: The USAF has examined the following resource areas and found that implementation of the Proposed Action would not result in any significant impacts:

Airspace Management (Section 3.1, p. 3-2): Aircraft activity occurring at Eglin AFB as a result of the Proposed Action would not surpass the Air Traffic Control (ATC) capacity or result in a change to the configuration (i.e., size, shape, or location) of airspace. Annual operations occurring outside of the Eglin Restricted Airspace would be distributed over a large area and would not exceed the established capacities of respective airspaces. As a result adverse impacts to airspace management at Eglin AFB or within the southeast region would be less than significant.

Air Quality (Section 3.2, p. 3-10): Increases in fugitive dust emissions associated with construction activities would be short-term and temporary, resulting in only minor adverse impacts to air quality. Operational emissions associated with the Proposed Action are not anticipated to exceed existing conditions at Duke Field, resulting in impacts that are beneficial but less than significant. No significant increases in green house gas emissions are expected as a result of implementation of the Proposed Action.

Geological Resources (Section 3-3, p. 3-20): Construction-related impacts to soils as a result of the Proposed Action would be negligible as they would be reduced

and localized to the project footprint. Implementation of the Proposed Action would also result in minor, localized impacts to topography. Consequently, adverse impacts to geological resources under the Proposed Action would be less than significant.

Biological Resources (Section 3.4, p. 3-24): Construction-related activities associated with the Proposed Action will result in localized adverse impacts to vegetation that would be negligible on a regional scale. Additionally, adverse impacts to wildlife are expected to be minor, but negligible on a regional scale.

Water Resources (Section 3.5, p. 3-32): Under the Proposed Action, no construction-related activity would occur near surface water features or designated floodplains. As a result adverse impacts to surface water would be less than significant.

Land Use (Section 3.6, p. 3-38): Though the construction of the AvFID Squad Ops Facility would constitute a change in land use, this project is consistent with the Area Development Plan prepared for Duke Field. Therefore, adverse impacts to land use resulting from the implementation of the Proposed Action would be less than significant.

Noise (Section 3.7, p. 3-43): Implementation of the Proposed Action would have minor, temporary adverse impacts on the noise environment in the vicinity of the proposed construction and demolition sites. However, there are no sensitive receptors in the vicinity of Duke Field that would be affected by the noise generated from construction activity at the airfield. Additionally, the proposed beddown of AvFID aircraft would not be expected to result in any measurable changes to the established noise contours at Duke Field, which are almost entirely dominated by operations associated with the much louder F-35 aircraft.

Cultural Resources (Section 3.8, p. 3-48): All proposed construction and demolition activities would be sited outside of the cultural restricted area. Therefore, no significant adverse impacts to archaeological resources would be expected. Additionally, building evaluations in the project area did not reveal any resources meeting the criteria for eligibility for listing in the National Register of Historic Places (NRHP). Therefore, no significant adverse impacts to cultural resources are anticipated as a result of the Proposed Action.

Hazardous Materials and Wastes (Section 3.9, p. 3-54): The increase in construction-related hazardous materials and wastes would be minor and temporary. Further, no adverse impacts to any ERP sites at Duke Field would be expected to occur under the Proposed Action. All potential asbestos containing material (ACM) would be handled and disposed of according to the installation *Asbestos Management Plan* and all applicable regulations. As a result, adverse

impacts associated with hazardous materials and wastes would be less than significant.

Transportation and Circulation (Section 3.10, p. 3-60): Projects under the Proposed Action would result in minor temporary adverse impacts to traffic circulation at Duke Field due to temporary closures and relocations associated with construction-related activities. However, long term impacts to transportation and circulation would be beneficial as the implementation of the Proposed Action includes the development of a road network connecting the AvFID Squadron Operations building to the rest of Duke Field.

Visual Resources (Section 3.11, p. 3-63): The visual environment of Duke Field does not constitute a unique or sensitive view shed and construction-related impacts would be temporary. Short-term adverse impacts to visual resources at Duke Field would be less than significant.

Safety (Section 3.12, p. 3-66): With regard to aircraft mishaps and bird-aircraft strikes, adverse impacts to safety as a result of the Proposed Action would be less than significant. Additionally no conflicts with runway protection zones or explosive safety would result from implementation of the Proposed Action. Further, no violations of Anti-Terrorism/Force Protection (AT/FP) standards under the Proposed Action would occur at Duke Field.

PUBLIC NOTICE

NEPA, 40 CFR Parts 1500-1508, and 32 CFR Part 989 require public review of the EA before approval of the Finding of No Significant Impact (FONSI) and implementation of the Proposed Action. A Notice of Availability for public review of the Draft EA was published in *Northwest Florida Daily News* on 29 May 2012 and made available for public review on Eglin AFB's website from 29 May to 27 June 2012. The total review period for public comments was 30 days. No public comments were received on the Draft EA and therefore none were incorporated into the Final EA. In accordance with the Interagency and Intergovernmental Coordination for Environmental Planning process, the USAF notified relevant Federal, state, and local agencies though the Florida State Clearinghouse and allowed them sufficient time to make known their environmental concerns specific to the Proposed Action. Letters received from public agencies were incorporated and attached to the Final EA. In addition, no comments were received from relevant Native American tribes.

REGULATIONS, PLANS, AND PERMITS

The proponent is responsible for obtaining and implementing the conditions in the following documents:

- Coastal Zone Management Act (CZMA) Consistency Determination

- Stormwater Pollution Prevention Plan (SWPPP)
- Florida Department of Environmental Protection (FDEP) National Pollutant Discharge Elimination System (NPDES) Permit
- Title V Permit (maintained by Eglin AFB)

MANAGEMENT ACTIONS

The proponent is responsible for implementation of the following management actions:

Air Quality (Section 4.2.1, p. 4-1)

- Routine watering of the construction/access roads shall be implemented to reduce fugitive dust emissions during the construction phases of the Proposed Action.
- All construction equipment shall be maintained in proper working condition according to the manufacturer's specifications.
- During construction activities equipment shall be shut down when not in use, thereby minimizing exhaust emissions.

Biological Resources (Section 4.2.2, p. 4-2)

- Prior to initiation of any construction activities or disturbance within the proposed project area, a qualified biologist will perform a gopher tortoise (*Gopherus polyphemus*) survey and a red-cockaded woodpecker (*Picoides borealis*) survey.
- A qualified biologist shall monitor all construction operations.
- If an individual of a federally or state protected species is found in the proposed project area work shall cease in that area until either a qualified biologist can safely remove the individual in accordance with accepted species handling protocols, or it moves away on its own.
- If construction or maintenance activities continue at night, all lights will be shielded to direct light only onto the work area.

Water Resources (Section 4.2.3, p. 4-3)

- Silt fences and hay bales that will be installed prior to construction and construction site entrances will be stabilized using stone and geotextile
- For construction equipment (e.g., cement mixers), a "staging area" shall be designated to contain any chemicals, solvents, or toxic materials in order to prevent them from entering surface waters.

Noise (Section 4.2.4, p. 4-5):

- Construction equipment will possess properly working mufflers and will be maintained properly to reduce backfires.
- All generators will be subject to noise-abatement methods in accordance with industry standards.

Cultural Resources (Section 4.2.5, p. 4-5)

- Should archeological material be inadvertently discovered during construction activities, all actions in the vicinity shall cease and efforts will be taken to protect the archeological find from further adverse impact.

Hazardous Materials and Wastes (Section 4.2.6, p. 4-5):

- The refueling and storage of machinery will be completed following accepted guidelines.
- No refueling or storage of heavy equipment shall take place within 100 feet of any drainage.

Safety (Section 4.2.7, p. 4-6)

- Should any residual be inadvertently uncovered during the course of grading or construction, all actions in the immediate vicinity shall cease and construction crews will immediately contact the 96 CES/CED.

FINDING OF NO SIGNIFICANT IMPACT

Based on my review of the facts and the environmental analysis contained in the attached EA, and summarized above, I find that the proposed decision of the Air Force to allow the beddown of the Aviation Foreign Internal Defense Squadrons at Duke Field on Eglin AFB, Florida, at the Proposed Action Site will not have a significant adverse impact on the human or natural environment; therefore, an environmental impact statement is not required. This analysis fulfills the requirements of the NEPA, the President's CEQ, and 32 CFR Part 989.

Anthony A. Higdon, Colonel, USAF
Commander, 96th Civil Engineer Group

30 JUL 12
Date

ACRONYMS

°F	degrees Fahrenheit
6 SOS	6th Special Operations Squadron
7 SFG	7th Special Forces Group
919 SOW	919th Special Operations Wing
96 CEG/ CEVSH	96th Civil Engineering Group, Cultural Resources Section
AADT	annual average daily traffic
ACM	Asbestos Containing Material
ADAL	additions and alterations
AFB	Air Force Base
AFI	Air Force Instruction
AFM	Air Force Manual
AFOSH	Air Force Occupational and Environmental Safety, Fire Protection, and Health
AFRC	Air Force Reserve Command
AFSOC	Air Force Special Operations Command
AGE	aerospace ground equipment
AGL	Above Ground Level
AICUZ	Air Installation Compatible Use Zone
APZ	Accident Potential Zone
AQCR	Air Quality Control Region
AT/FP	Anti-Terrorism/Force Protection
ATC	Air Traffic Control
ATCAA	Air Traffic Control Assigned Airspace
AvFID	Aviation Foreign Internal Defense
BASH	Bird/Wildlife Aircraft Strike Hazard
BMP	Best Management Practice
BRAC	Base Realignment and Closure
CAA	Combat Aviation Advisor
CEQ	Council on Environmental Quality
CFA	Controlled Firing Area
CFR	Code of Federal Regulations
CO	carbon monoxide
CZ	Clear Zone
dB	decibel
DNL	day-night average dBA
DoD	Department of Defense
DoDI	Department of Defense Instruction
DZ	Drop Zones
EA	Environmental Assessment
EIAP	*Environmental Impact Analysis Process*
EO	Executive Order
ERP	Environmental Restoration Program
ESA	Endangered Species Act
ESQD	Explosive Safety Quantity-Distance
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FEMA	Federal Emergency Management Agency
ft bgs	feet below ground surface
FY	Fiscal Year
HAP	hazardous air pollutant
HVAC	Heating, ventilation, and air conditioning
IFR	Instrument Flight Rules
IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
IR	Instrument Routes
IRP	Installation Restoration Program
JSF	Joint Strike Fighter
LEED	*Leadership in Energy and Environmental Design*
MOA	Military Operations Area
mph	miles per hour
MSL	mean sea level
MTR	Military Training Route
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
NOI	Notice of Intent
NO_x	nitrogen oxide
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSR	New Source Review
NWFWMD	Northwest Florida Water Management District
O_3	ozone
ODS	Ozone-Depleting Substances
OSHA	Occupational Safety and Health Administration
Pb	lead
PCA	Positive Control Area
pCi/L	picocuries per liter
PM_{10}	particulate matter equal or less than ten microns in diameter
$PM_{2.5}$	particulate matter equal or less than 2.5 microns in diameter
POC	point of contact
PPE	Personal Protective Equipment
PSD	Prevention of Significant Deterioration
QDR	Quadrennial Defense Review
ROI	region of influence
RPZ	runway protection zone
sf	square foot
SHPO	State Historic Preservation Office
SO_2	sulfur dioxide
SOMXS	Special Operations Maintenance Squadron
SOS	Special Operations Squadron
SO_x	sulfur oxides
SUA	Special Use Airspace
SWPPP	Storm Water Pollution Prevention Plan
tpy	tons per year
UFC	Unified Facilities Criteria
USAF	United States Air Force
USC	U.S. Code
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGBC	U.S. Green Building Council
USGS	United States Geological Survey
USSOCOM	U.S. Special Operations Command
UXO	Unexploded Ordinance
VFR	Visual Flight Rules
VOC	Volatile Organic Compound
VR	Visual Routes
WRCA	Water Resources Caution Area

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FINDING OF NO SIGNIFICANT IMPACT

Based on my review of the facts and the environmental analysis contained in the attached EA, and summarized above, I find that the proposed decision of the Air Force to allow the beddown of the Aviation Foreign Internal Defense Squadrons at Duke Field on Eglin AFB, Florida, at the Proposed Action Site will not have a significant adverse impact on the human or natural environment; therefore, an environmental impact statement is not required. This analysis fulfills the requirements of the NEPA, the President's CEQ, and 32 CFR Part 989.

Anthony A. Higdon, Colonel, USAF
Commander, 96th Civil Engineer Group

30 JUL 12
Date

FINAL
ENVIRONMENTAL ASSESSMENT
FOR AVIATION FOREIGN INTERNAL DEFENSE BEDDOWN (AVFID)
AT DUKE FIELD
EGLIN AIR FORCE BASE, FLORIDA

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SECTION 1
PURPOSE AND NEED FOR ACTION

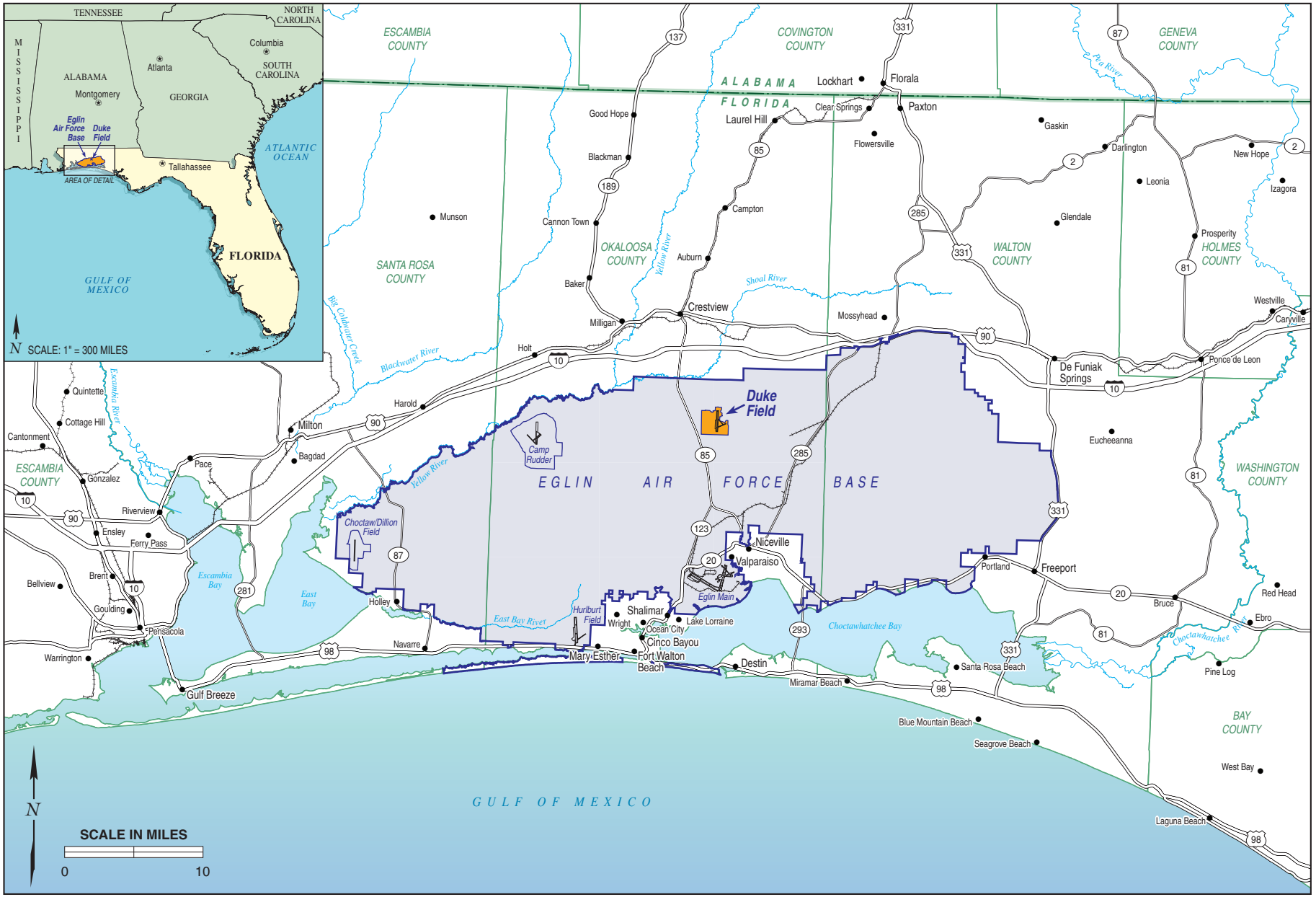
1.1 INTRODUCTION

The U.S. Air Force (USAF) proposes a new Aviation Foreign Internal Defense (AvFID) fixed-wing aircraft mission beddown, aircraft operations, and associated construction projects at Duke Field, located within Eglin Air Force Base (AFB), in northwestern Florida. This Environmental Assessment (EA) has been prepared in accordance with regulations issued by the Department of Defense (DoD), 32 Code of Federal Regulations (CFR) Part 989, *Environmental Impact Analysis Process* (EIAP). In accordance with Council on Environmental Quality (CEQ) *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* (NEPA) (40 CFR Parts 1500-1508, Section 1502.13), this section specifies the *purpose* and *need* for Proposed Action at Duke Field.

1.2 LOCATION AND BACKGROUND

Eglin AFB is located in the northwest Florida panhandle and its primary function is to support research, development, test, and evaluation of conventional weapons and electronic systems. It also provides support for individual and joint training of operational units. Duke Field, also known as Eglin AFB Auxiliary Field #3, is located in the north central portion of Eglin AFB, approximately 9 miles north of the City of Niceville, Florida (Figure 1-1).

Duke Field encompasses approximately 2,700 acres which includes two major paved runways and associated taxiways, aprons, and airfield operations and maintenance facilities (Figure 1-2). Duke Field is home to the 919th Special Operations Wing (919 SOW), an Air Force Reserve Command (AFRC) unit that currently operates and maintains the MC-130E Combat Talon special operations aircraft. When activated, the 919 SOW reports to the Air Force Special Operations Command (AFSOC), located at Hurlburt Field. As part of the Proposed Action, AFSOC proposes the standup of an Active Component Combat Aviation Advisor (CAA) squadron at Duke Field, including the purchase of an inventory of 16 light, twin-engine, fixed-wing aircraft. Nine (9) of the 16 aircraft could be continuously deployed around the world to various Theater Special



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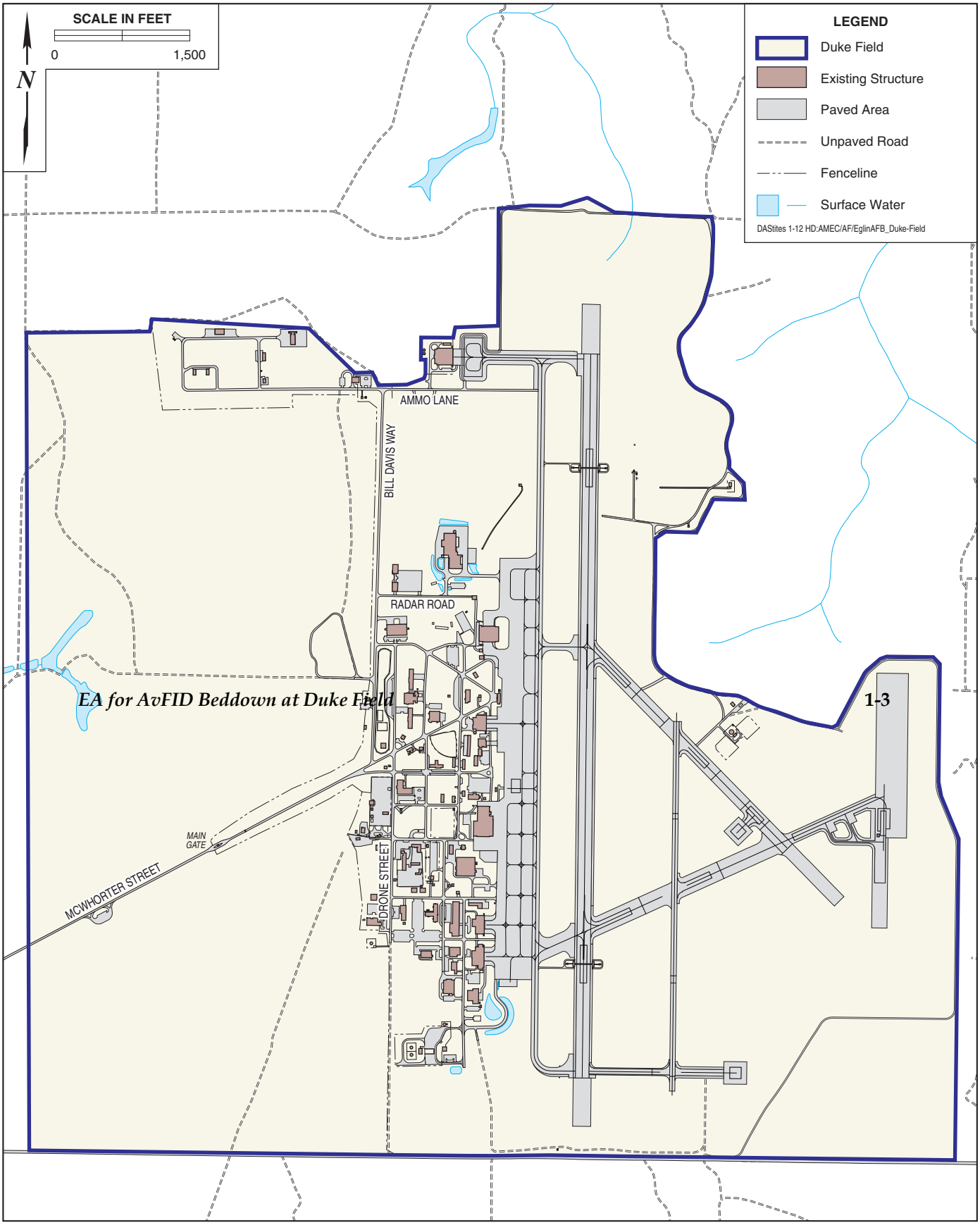
Regional Location Map
Eglin Air Force Base and Duke Field

FIGURE 1-1



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Duke Field

FIGURE 1-2

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Operations Commands in order to support the AvFID mission, which is to advise and assist foreign partner nations. In addition, a Reserve Component CAA squadron would be established and maintained at Duke Field. The 919 SOW would support training requirements and also provide a surge requirement for overseas deployments. Personnel from the 919 SOW would be re-missioned to support the Reserve Component CAA squadron and Special Operations Maintenance Squadron (SOMXS) after the phase-out of the MC 130E Combat Talon aircraft, which was directed by U.S. Special Operations Command (USSOCOM). In concert with the activation of the AvFID mission and the retirement of the MC-130E aircraft at Duke Field, the MC-130E aircraft associated with the 6th Special Operations Squadron (6 SOS) at Hurlburt Field would also be retired. The Active Component for the AvFID program would include 286 personnel and would be staffed by approximately 229 personnel from the 6 SOS (and/or other units), currently stationed at Hurlburt Field, and 57 additional military personnel not currently associated with the unit.

1.3 PURPOSE AND NEED FOR PROPOSED ACTION

Purpose. The *purpose* of the Proposed Action is three-fold: 1) to provide highly trained, rapidly deployable, combat-ready CAAs to support foreign partner nations as part of the AvFID mission; 2) to consolidate facilities in order to maximize operations and maintenance facility efficiency and respond to physical needs associated with the AvFID beddown; and 3) enable necessary support facilities to meet current environmental, safety, and security standards (namely those set forth by the DoD in its *United Facilities Criteria [UFC]: DoD Minimum Anti-terrorism Standards for Buildings*).

Need. The *need* for the Proposed Action is driven by the 2010 Quadrennial Defense Review (QDR), which directed AFSOC to strengthen and expand its capabilities for training partner nation aviation forces. Core AvFID objectives are to train, advise, and assist foreign partner nations in the areas of day and night operations in low-level navigation, airdrop, air/land resupply, leaflet drop, medical/casualty evacuation, personnel recovery, visual meteorological condition formation, aerial reconnaissance/intelligence, airborne command and control, convoy escort, border patrol, counter-narcotics, and humanitarian

assistance and disaster relief. The subsequent *Resource Management Decision 700* directed AFSOC to purchase 16 light, twin-engine, fixed-wing aircraft and provided funding for associated construction projects to support AFSOC's AvFID growth.

1.4 SUMMARY OF ENVIRONMENTAL STUDY REQUIREMENTS

The EIAP is the process by which Federal agencies facilitate consideration of environmental regulations and through which the public and agencies have an opportunity to make known their concerns about federally proposed or funded activities. The primary legislation affecting these agencies' decision-making process is NEPA. This act and other facets of the EIAP are listed below; expanded summaries of the regulations pertaining to the EIAP are provided in Appendix A:

- NEPA and subsequently issued *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* (40 CFR § 1500-1508, 32 CFR part 989);
- Federal Endangered Species Act of 1973;
- Clean Air Act of 1970 (42 USC §§ 7401 *et seq.*);
- Clean Water Act of 1977 (33 USC §§ 1251 *et seq.*);
- Coastal Zone Management Act;
- Executive Order (EO) 11990, *Protection of Wetlands*;
- EO 11988, *Floodplain Management*;
- National Historic Preservation Act of 1966;
- EO 13007, *Indian Sacred Sites*;
- American Indian Religious Freedom Act;
- Native American Graves Protection and Repatriation Act;
- UFC 4-010-01, *DoD Minimum Anti-terrorism Standards for Buildings;*
- EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*;

- EO 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*;
- EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*; and
- Interagency and Intergovernmental Coordination for Environmental Planning (refer to Appendix B).

1.5 SCOPE OF THE ENVIRONMENTAL ASSESSMENT

This EA evaluates potential environmental impacts to the following resources that would have the potential to be affected by implementation of the Proposed Action or identified alternatives:

- Airspace Management
- Air Quality
- Geological Resources
- Biological Resources
- Water Resources
- Land Use
- Noise
- Cultural Resources
- Hazardous Materials and Wastes
- Transportation and Circulation
- Visual Resources
- Safety

Per NEPA, those environmental resource areas that are anticipated to experience either no or negligible environmental impact under implementation of the Proposed Action or its alternatives are not examined in detail in this EA. These environmental resources include:

- Utilities
- Socioeconomics
- Environmental Justice/Protection of Children

A brief summary of the reasons for not conducting detailed analyses of these resources is provided below.

Utilities. The Proposed Action would tie into adjacent existing utility services for gas, sewer, water, and electricity. Construction activities would be subject to standard design review requirements in order to avoid inadvertent interruption of existing subsurface utilities on base. In addition, the proposed facilities could potentially tie into the 7th Special Forces Group's fiber optic cable infrastructure or tie into the main fiber optic cable that runs from Eglin Main Base to Duke Field after planned upgrades. In either case, surrounding infrastructure would have sufficient capacity to support communication needs for the Proposed Action at Duke Field. Further, the proposed facilities are expected to result in only a negligible increase in utility demands over existing conditions.

Socioeconomics. Implementation of the Proposed Action would provide short-term benefits to the local economy, including construction employment and materials purchases. However, such short-term beneficial impacts from temporary employment gains would be negligible on a regional scale and the Proposed Action would result in negligible long-term changes in employment levels or economic activity at Duke Field.

Environmental Justice/Protection of Children. With regard to environmental justice issues, no major, adverse environmental impacts associated with the Proposed Action are anticipated to affect on- or off-base communities and any short-term impacts (e.g., with regard to noise) are expected to be minor. Therefore, no populations (minority, low-income, or otherwise) would be disproportionately adversely impacted and no adverse impact with regard to environmental justice would result. In general, implementation of the Proposed Action would not result in increased exposure of children to environmental health risks or safety risks such as the generation, use, or storage of hazardous materials. Standard construction site safety precautions (e.g., fencing and other security measures) would reduce potential risks to minimal levels and any potential impacts to children would be negligible and short-term.

SECTION 2
PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

This section describes details related to the Proposed Action and alternatives, including the No-Action Alternative. Guidance for complying with the National Environmental Policy Act (NEPA) requires an assessment of potentially effective and reasonably feasible alternatives to implementation of the Proposed Action. Alternatives that were dismissed early in the planning process as infeasible — including alternative beddown locations — are not included for analysis and only the Proposed Action and the No-Action Alternative will be addressed in this Environmental Assessment (EA). Details related to the Proposed Action and the No-Action Alternative, as well as a description of alternatives that were considered but eliminated from further analysis are provided below.

2.2 PROPOSED ACTION (PREFERRED ALTERNATIVE)

There are two primary elements of the Proposed Action addressed in this EA: one concerns the proposed beddown of Aviation Foreign Internal Defense (AvFID) fixed-wing aircraft at Duke Field, Eglin Air Force Base (AFB), and the other focuses on facilities construction and infrastructure improvements necessary to facilitate the beddown and ensure the safe and efficient accomplishment of the new mission following its establishment.

2.2.1 AvFID Beddown and Operations

As part of the Proposed Action, Air Force Special Operations Command (AFSOC) proposes to standup an Active Component Combat Aviation Advisor (CAA) Special Operations Squadron (SOS) and Special Operations Maintenance Squadron (SOMXS) at Duke Field, including the purchase of an inventory of 16 light, twin-engine, fixed-wing aircraft. Nine (9) of the 16 aircraft could be continuously deployed around the world to various Theater Special Operations Commands in order to support the AvFID mission to advise and assist foreign partner nations. A Reserve Component squadron would be established and maintained at Duke Field to support the proposed AvFID training requirements

and operational mission. Personnel from the 919th Special Operations Wing (919 SOW) would be remissioned to support the Reserve Component CAA squadron and SOMXS following phase-out of the MC-130E Combat Talon aircraft.

Under the new AvFID mission, Duke Field would primarily be used for launch and recovery operations, maintenance, and training. The majority of day/night airland operations and airdrop training would be conducted on semi-prepared dirt airstrips and associated Drop Zones (DZs) within the Eglin AFB range complex currently utilized by the 919 SOW's MC-130E aircraft. 919 SOW MC-130E aircraft were allocated 2,320 total annual aircraft operating hours for Fiscal Year (FY) 2012 (AFSOC 2012). Of those, approximately 1,500 hours (65 percent) will be flown locally (i.e. within the Eglin AFB range complex), the remainder will be flown outside of the Eglin AFB range complex within the southeastern region. Under the Proposed Action, AvFID aircraft would be allocated up to 4,800 annual flight hours domestically; however, only 1,440 (approximately 30 percent) of these proposed operating hours would be flown locally (AFSOC 2012). Table 2-1 presents a summary of existing local aircraft operations associated with the current aircraft inventory and proposed local aircraft operations following the AvFID aircraft beddown.

Table 2-1. Existing and Proposed Aircraft Activity

Aircraft	Annual Allocated Operating Hours	Average Sortie[1] Duration	Ranges Used
Currently Assigned Aircraft			
MC-130E	1,500	4.0 hours	B6 Field 6/Sontay DZ C61A Field 1/Pino DZ
After Proposed Aircraft Beddown			
light, twin-engine, fixed-wing aircraft[2]	1,440	4.0 hours	B6 Field 6/Sontay DZ C61A Field 1/Pino DZ

[1]A sortie is defined as a series of single events (i.e., operations) that include landings, takeoffs, and individual climb-out and descent portions of a closed pattern.
[2]Total inventory would include 16 aircraft; nine Active Component aircraft may be deployed globally at all times; the seven remaining aircraft would be located at Duke Field.

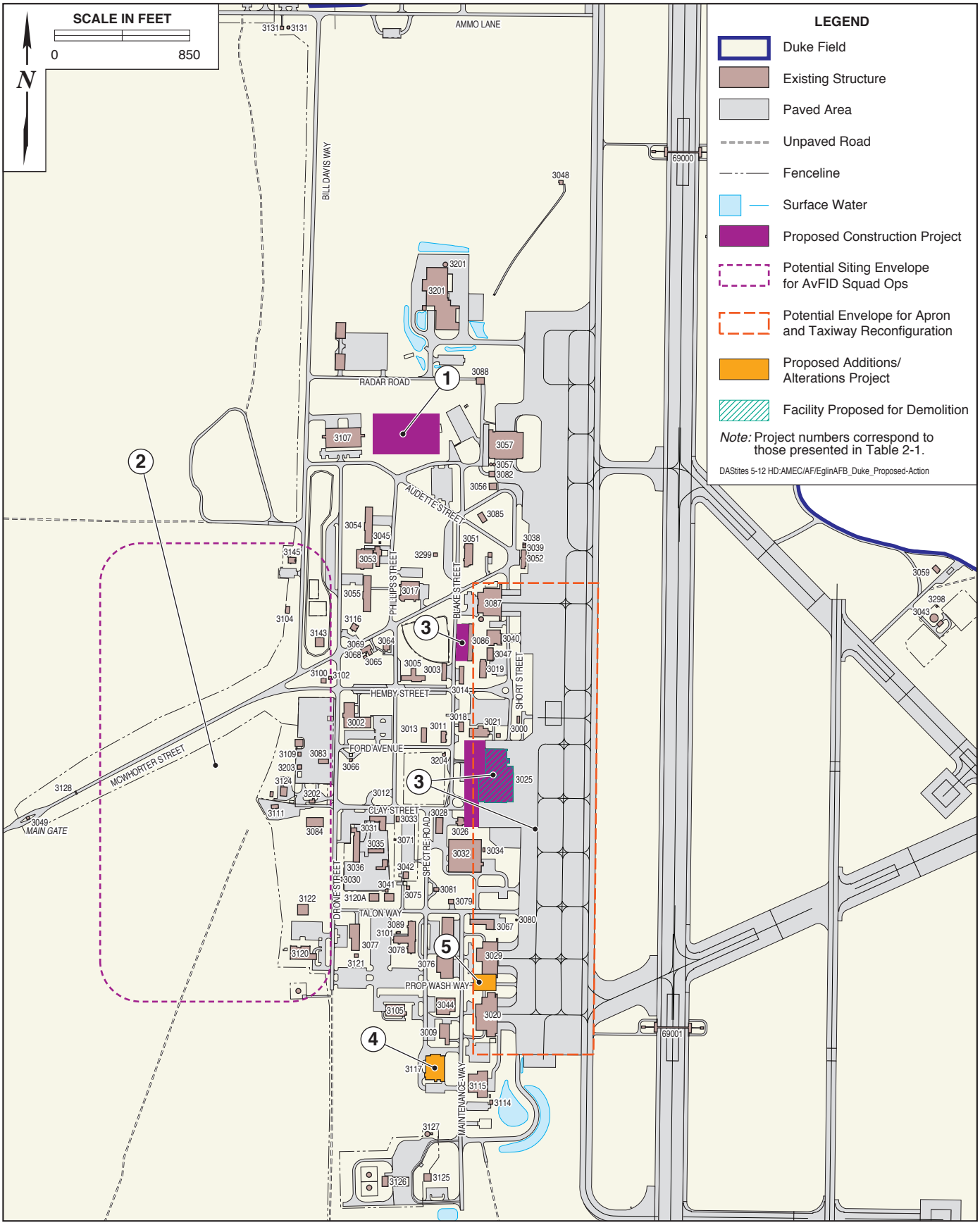
Currently, the 919 SOW has an inventory of 10 MC-130E aircraft; it previously had an inventory of 14 of these aircraft. Beddown of AvFID aircraft at Duke Field would be conducted simultaneously with the planned retirement of the

919 SOW's MC-130E aircraft. Five MC-130E aircraft are scheduled to be retired in FY 2012 and the remaining five aircraft are scheduled to be retired by the end of FY 2015. The AvFID mission would begin to beddown at Duke Field in the fourth quarter of FY 2012. It is currently anticipated that AvFID aircraft would conduct up to eight sorties a day at Duke Field, including four day sorties and four night sorties. A sortie is defined as a series of single events (i.e., operations) that include landings, takeoffs, and individual climb-out and descent portions of a closed pattern. AvFID aircraft would conduct day/night airland and airdrop training at dirt and paved airstrips and associated DZs currently utilized by the 919 SOW's MC-130E aircraft for similar operations.

The Active Component for the AvFID program would include 286 personnel and would be staffed by approximately 229 personnel from the 6 SOS (and/or other units), currently stationed at Hurlburt Field, and 57 additional military personnel not currently associated with the unit. The Reserve Component manpower for the AvFID Program would include 396 personnel, which would be staffed entirely by 919 SOW personnel after remissioning. Therefore, implementation of the Proposed Action would result in an increase of only 57 personnel to the Eglin AFB complex. In addition, a total of 101 personnel could be deployed globally at any given time to assist foreign partner nations in support of the AvFID mission.

2.2.2 Facilities Construction

New construction and additions and alterations (ADAL) to existing facilities would occur at Duke Field to facilitate and support the proposed AvFID beddown. Approximate locations for the projects proposed are depicted in Figure 2-1, and Table 2-2 lists the construction projects proposed by AFSOC and necessary to facilitate implementation of the Proposed Action. The size, construction year, and exact location of some construction projects could potentially change based on future funding and as designs develop further in accordance with mission requirements. Each building site would be developed to provide maximum efficiency, adequate stormwater runoff detention, and compliance with all relevant safety regulations. All new construction would be built in a style consistent with existing architecture at the installation. Details of construction projects are provided below (project numbering refers to locations depicted in Figure 2-1 and projects listed in Table 2-2).



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Proposed Construction Projects at Duke Field

FIGURE 2-1

No warranty is made by the USAF as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. This map is a "living document," in that it is intended to change as new data become available and are incorporated into the GIS database.

Table 2-2. Proposed Construction Projects

Project Number[1]	Project Title	FY	Size	Key Components
1	Temporary Facility for AvFID Squad Ops	2012	36,500 sf	• 36,500-sf temporary facility (mobile trailers)
2	AvFID Operations and MX Facilities – Operations Facility	2013	78,800 sf	• 78,800-sf operations and training operations facility • 18,000-sf training devices facility • Approximately 335 parking spaces • Roadway extension and realignment
3	AvFID Operations and MX Facilities – Airfield Pavements/Maintenance Facilities	2013	1,795,292sf	• Demolish Building 3025 (59,302 sf) • 1,726,700 sf of apron, pad and taxiway improvements, including: o New pad for Aircraft Washrack (63,000 sf) o New apron and taxiway to integrate pad into existing airfield pavements (304,700 sf) o Reconfiguration of existing apron and taxiway circulation (1,359,000 sf) • Relocate existing Aircraft Washrack shelter (equipment) • New Aircraft Washrack staging and storage facility (495 sf) • New AGE covered and open storage (8,795 sf)
4	AvFID Operations and MX Facilities – Maintenance Facilities	2013	22,840 sf	• 22,840-sf for alteration of maintenance facilities (Buildings 3044, 3115, and 3117) and addition of paint booth (Building 3117)
5	SOMXS Addition	2013	14,000 sf	• 14,000-sf addition between Buildings 3020 and 3029

[1] Key refers to locations depicted on Figure 2-1.
ADAL- Additions and Alterations
AGE – Aerospace Ground Equipment
SOMXS – Special Operations Maintenance Squadron
MX – maintenance
sf – square feet

1) Temporary AvFID Squad Ops Facility

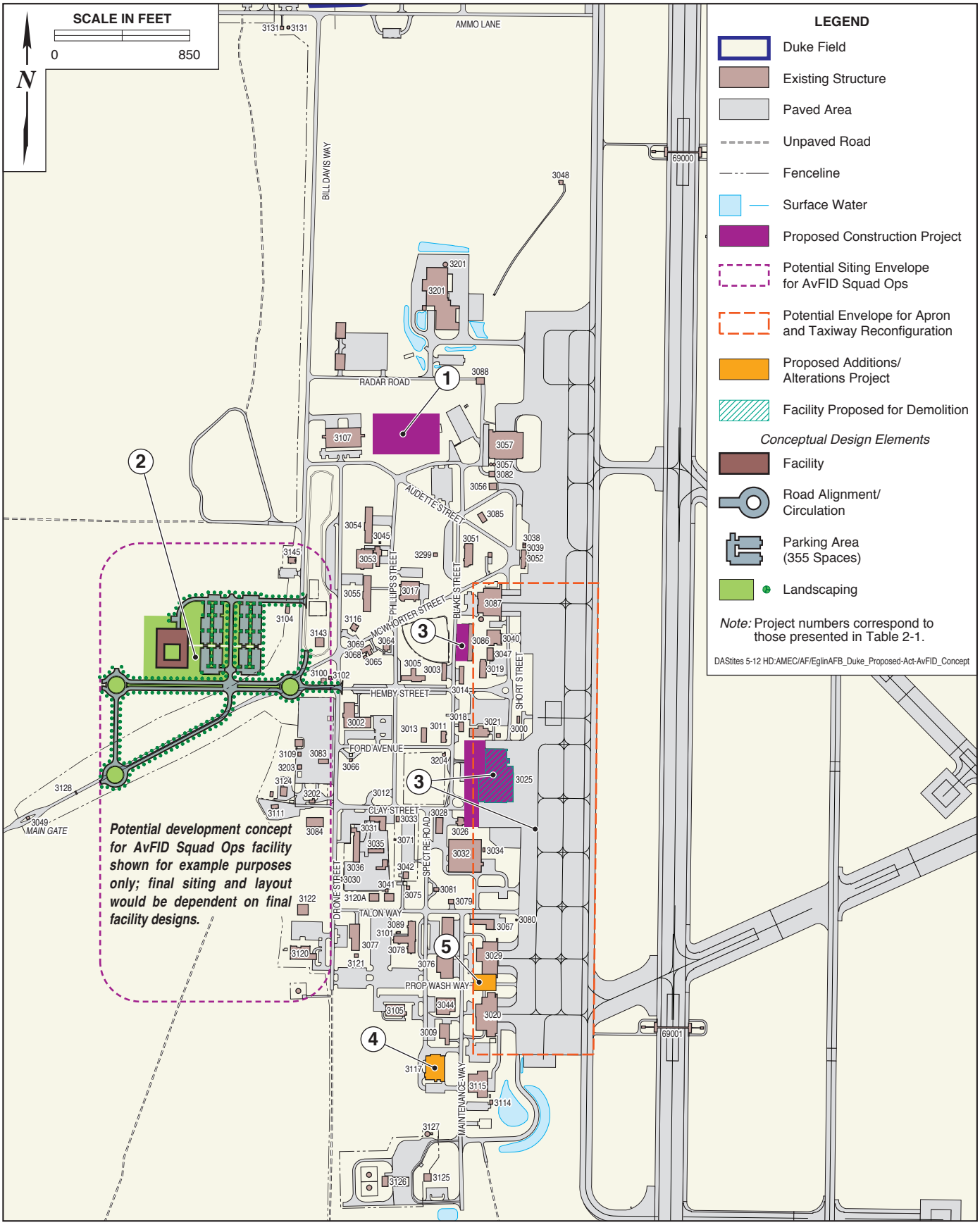
In order to accommodate the standup of the AvFID mission at Duke Field, AFSOC proposes the installation of a 36,500-square foot (sf) temporary facility to

provide administrative, classroom, training, and equipment storage space for the active component of AvFID Squadron Operations (hereafter referred to as 'Squad Ops'). Construction award and design of the temporary facilities could begin in fourth quarter FY 2012 with beneficial occupancy in fourth quarter FY 2013. This temporary facility would consist of mobile trailer units that would be combined to provide the required Squad Ops space until construction of a permanent AvFID Squad Ops facility begins in FY 2013 with beneficial occupancy in FY 2015.

2) AvFID Operations and MX Facilities – Operations Facilities

In order to support the AvFID mission, AFSOC proposes the construction of a multi-story 78,800-sf AvFID Squad Ops facility. The proposed facility would house both Active and Reserve Component operational squadrons, and functional areas would include space to plan, brief and critique aircrews, direct and support flight operations, provide aircrew flight equipment services, and provide aircrew and cultural/language training. In addition, the proposed AvFID Squad Ops facility would include construction of a parking area (approximately 335 spaces), associated roadway extension and realignment, and construction of a water storage tower.

The exact location and layout of the proposed AvFID Squad Ops facility and associated parking and roadway has not yet been determined; however, the proposed facility and associated infrastructure would be located within the potential development envelope in the vacant area to west of the main cantonment area at Duke Field (refer to Figure 2-1). Figure 2-2 has been provided as a representative depiction of a potential development concept for the AvFID facility and illustrates conceptual configurations for parking and roadway improvements. While actual siting and configuration would be dependent on final facility designs and engineering, associated parking and roadway improvements would consist of a total of up to approximately 350,000 sf of new pavements under an optimal design scenario. In addition, facility design and layout would include all associated landscaping and vegetation and proper consideration of Anti-Terrorism/Force Protection (AT/FP) setbacks and would



EA

Proposed Construction Projects and Example of Conceptual Site Design for AvFID Squad Ops within Potential Siting Envelope

FIGURE 2-2

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be sited to avoid relevant environmental constraints, including existing facilities, noise contours, identified groundwater and soil contamination areas, and sensitive biological species or habitat.

As the proposed AvFID aircraft is currently in the selection process, the training devices for this aircraft have not been formally identified at this point. However, typical aircraft training devices include weapons system trainers for pilots, fuselage trainers or cabin part task trainers for the crews, maintenance and emergency responders, and part task trainers for the maintainers. These devices would be associated with the training operations unit and would be located in proximity to the AvFID Squad Ops facility. The training devices facility would be approximately 18,000 sf if all types of devices were determined to be required.

3) AvFID Operations and MX Facilities – Airfield Pavements/Maintenance Facilities

In order to provide appropriate support and storage infrastructure for the new AvFID mission and to address existing airfield safety issues, AFSOC proposes demolition of Building 3025 (59,302 sf), reconfiguration and expansion of apron, pad, and taxiway pavements, and associated maintenance facility construction. The current washrack pad and a portion of Building 3025 currently operate under airfield waivers for height violations of the transitional airfield surface. The existing aprons and taxiways do not conform to current airfield criteria due to their location less than 1,000 feet from the centerline of the runway and would require airfield waivers if they were not exempt under a "grandfather clause". In addition, the apron pavements have been rated poor and unsuitable for parking, and current aerospace ground equipment (AGE) storage is inadequate to support the new AvFID mission.

Airfield pavement improvements would include construction of an approximately 63,000-sf pad to support relocation of the existing washrack shelter (Building 3100) to the space made available by the demolition of Building 3025 as well as expansion of approximately 304,700 sf of new apron and taxiway to integrate the washrack pad into existing airfield pavements. Proposed airfield pavement improvements would also include reconfiguration of approximately

1,359,000 sf of existing apron and taxiway circulation to provide 12 AvFID aircraft parking spots and access to existing hangars (Buildings 3020, 3029, and 3087). Reconfiguration would include required mooring points, grounding points, and airfield striping to convert the current MC-130E parking plan to a parking plan suitable for the new AvFID aircraft. In addition, associated facilities construction would include approximately 495 sf for a new washrack pad utility staging and storage facility and approximately 8,795 sf of covered and open AGE storage space to replace existing facilities.

4) AvFID Operations and MX Facilities – Maintenance Facilities

Although a majority of existing maintenance facilities can be modified to support the new AvFID mission, the existing corrosion control facility (Accessories and Fabrication, Building 3117) is deficient in space to allow a controlled environment for flow of aircraft parts to be stripped, repaired, and repainted. To address these space deficiencies, AFSOC proposes additions and alterations (ADAL) to Buildings 3044, 3155, and 3117 totaling 22,840 sf. The majority of proposed ADAL would include interior renovation for new maintenance unit organization and to provide proper ventilation and containment and reconfiguration of space for Active and Reserve Component maintenance activities. In addition, the Proposed Action would also include an addition to Building 3117 to house a properly equipped paint booth.

5) SOMXS Addition

Existing facilities (Buildings 3020 and 3029) would provide required hangar space for up to four (4) AvFID aircraft; however, additional space would be required to house administrative and other functions of the SOMXS associated with the AvFID program. In order to co-locate SOMXS administrative functions with maintenance hangar space, AFSOC proposes to construct a future 14,000-sf addition that would connect Buildings 3020 and 3029. The proposed addition would be a single-story facility with a concrete slab-on-grade foundation, masonry unit and metal stud construction with masonry veneer exterior finish, and a sloped metal roof.

2.2.2.1 Design and Construction

Design and construction of the new AvFID Squad Ops facility and proposed additions would incorporate sustainable principles (per Executive Order [EO] 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*), and would be registered with the U.S. Green Building Council (USGBC) with the goal of attaining a Silver Certification according to *Leadership in Energy and Environmental Design (LEED) Requirements for New Construction V3.0*. Sustainable design elements would be incorporated within:

- Required demolition
- Site preparation
- Reinforced concrete slab and foundation
- Steel structure
- Masonry and metal panel exterior
- Standing seam metal roof system
- Fire protection
- Heating, ventilation, and air conditioning (HVAC)
- Electrical and plumbing systems
- Utility connections

All construction would be consistent with the Eglin AFB's Architectural Guidelines; further, construction would comply with applicable codes and laws, and AT/FP requirements.

2.3 ALTERNATIVES ELIMINATED FROM CONSIDERATION

In addition to the Preferred Alternative, no other feasible alternatives were identified which would meet the *purpose* and *need* of the Proposed Action. Specifically, no alternative beddown locations were identified that could consolidate facilities in order to maximize operations and maintenance facility efficiency and respond to physical needs associated with the AvFID beddown. Other alternative locations that were considered but eliminated from consideration early in the planning process included:

- Eglin Main Base;
- Biancur Field (Eglin AFB Auxiliary Field #6);
- Hurlburt Field (Eglin AFB Auxiliary Field #9);

- Choctaw Field (Eglin AFB Auxiliary Field #10); and
- Cannon AFB

Screening criteria used to evaluate potential beddown locations considered operational, technical, and environmental requirements including operational feasibility, capacity of airspace and air traffic control, and availability of substantial infrastructure. However, none of the alternative beddown locations listed above were determined to appropriately satisfy these screening criteria. Further, the proposed location at Duke Field would utilize 919 SOW personnel and associated facilities that are scheduled to be available due to the planned retirement of the MC-130E aircraft at Duke Field and would capitalize on 36 years of special operations experience. Per 32 CFR 989.8, *Analysis of Alternatives*, since none of the alternative locations evaluated were determined to be potentially feasible site locations for the beddown and activation of the AvFID mission they were eliminated from detailed analysis in this EA.

2.4 NO-ACTION ALTERNATIVE

Under the No-Action Alternative, the proposed AvFID beddown and short-term construction, relocation, and renovation projects would not be implemented and AFSOC would be unable to strengthen and expand its capabilities for training partner-nation aviation forces as directed by the 2010 Quadrennial Defense Review. Because Council on Environmental Quality (CEQ) regulations stipulate that the No-Action Alternative be analyzed to assess any environmental consequences that may occur if the Proposed Action is not implemented, this alternative will be carried forward for analysis in the EA. The No-Action Alternative also provides a baseline against which the Proposed Action can be compared.

SECTION 3
AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section describes relevant existing environmental conditions as well as environmental impacts anticipated to result from implementation of the Proposed Action at Duke Field, Eglin Air Force Base (AFB) by the Air Force Special Operations Command (AFSOC). Per guidelines established by the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations, and Title 32, Code of Federal Regulations (CFR) Part 989 (32 CFR 989), *Environmental Impact Analysis Process*, the description of the affected environment and the associated impact analyses focus on only those aspects of the environment potentially subject to impacts resulting from the Proposed Action. Section 1.5, *Scope of the Environmental Assessment*, provides a summary of resource areas eliminated from detailed analysis.

This Environmental Assessment (EA) considers the proposed beddown of Aviation Foreign Internal Defense (AvFID) fixed-wing aircraft at Duke Field, Eglin AFB as well as the associated facilities construction and infrastructure improvements necessary to facilitate the beddown and to ensure the safe and efficient accomplishment of the new mission. This EA provides a description of the environmental conditions and impact analyses for the following environmental resources that would likely be affected by implementation of the Proposed Action or its alternatives:

- Airspace Management
- Air Quality
- Geological Resources
- Biological Resources
- Water Resources
- Land Use
- Noise
- Cultural Resources
- Hazardous Materials and Wastes
- Transportation and Circulation
- Visual Resources
- Safety

3.1 AIRSPACE MANAGEMENT

3.1.1 Definition of Resource

Airspace management is defined by the United States Air Force (USAF) as the coordination, integration, and regulation of the use of airspace of defined dimensions. The objective is to meet military training requirements through the safe and efficient use of available navigable airspace in a peacetime environment while minimizing the impact on other aviation users and the public (Air Force Instruction [AFI] 13-201). There are two categories of airspace or airspace areas: regulatory and nonregulatory. Within these two categories, further classifications for regulatory airspace include *controlled* and *uncontrolled*, while nonregulatory airspace includes *special use* and *other airspace*. The categories and classifications of airspace are dictated by: (1) the complexity or density of aircraft movements; (2) the nature of the operations conducted within the airspace; (3) the level of safety required; and (4) national and public interest in the airspace.

3.1.1.1 Controlled Airspace

Controlled airspace is a generic term that encompasses the different classifications of airspace and defines the dimensions within which air traffic control (ATC) service is provided to Instrument Flight Rules (IFR) flights and to Visual Flight Rules (VFR) flights. In addition, all military and civilian aircraft are subject to Federal Aviation Regulations (FARs).

Class A Airspace

Class A airspace includes all flight levels or operating altitudes over 18,000 feet above mean sea level (MSL). Formerly referred to as a Positive Control Area (PCA), Class A airspace is dominated by commercial aircraft utilizing routes between 18,000 and 60,000 feet above MSL.

Class B Airspace

Class B airspace typically comprises contiguous cylinders of airspace, stacked upon one another, extending from the surface up to 14,500 feet above MSL. To operate in Class B airspace, pilots must contact appropriate controlling

authorities and receive clearance to enter the airspace. Additionally, aircraft operating within Class B airspace must be equipped with specialized electronics that allow air traffic controllers to accurately track aircraft speed, altitude, and position. Class B airspace is typically associated with major metropolitan airports.

Class C Airspace

Airspace designated as Class C can generally be described as controlled airspace that extends from the surface or a given altitude to a specified higher altitude. Class C airspace is designed and implemented to provide additional ATC into and out of primary airports where aircraft operations are periodically at high-density levels. All aircraft operating within Class C airspace are required to maintain two-way radio communication with local ATC entities.

Class D Airspace

Class D airspace encompasses a 5-statute-mile radius of an operating ATC-controlled airport, extending from the ground to 2,500 feet above ground level (AGL) or higher. All aircraft operating within Class D airspace must be in two-way radio communication with the ATC facility.

Class E Airspace

Class E airspace can be described as general controlled airspace. It includes designated Federal airways consisting of the high altitude (J or "Jet" Route) system and the low altitude (V or "Victor" Route) system. Class E airspace extends upward from either the surface or a designated altitude to the overlying or adjacent controlled airspace. Also included in this class of airspace are Federal airways, airspace beginning at either 700 or 1,200 feet AGL used to transition to or from the terminal or enroute environment and enroute domestic and offshore airspace, designated below 18,000 feet above MSL.

3.1.1.2 Uncontrolled Airspace

Uncontrolled airspace (Class G) is not subject to the restrictions that apply to controlled airspace. Limits of uncontrolled airspace typically extend from the ground surface to 700 feet AGL in urban areas and from the ground surface to 1,200 feet AGL in rural areas. Uncontrolled airspace can extend above these altitudes to as high as 14,500 feet above MSL if no other types of controlled airspace have been assigned. ATC does not have authority to exercise control over aircraft operations within uncontrolled airspace. Primary users of uncontrolled airspace are general aviation aircraft operating in accordance with VFR.

3.1.1.3 Special Use Airspace

Special use airspace (SUA) consists of airspace within which specific activities must be confined, or wherein limitations are imposed on aircraft not participating in those activities. With the exception of Controlled Firing Areas (CFAs), SUA is depicted on aeronautical charts, including hours of operation, altitudes, and the agency controlling the airspace. All SUA descriptions are contained in Federal Aviation Administration (FAA) Order 7400.8.

Prohibited and Restricted Areas are regulatory SUA and are established in FAR Part 73 through the rulemaking process. Warning Areas, CFAs, and military operations areas (MOAs) are nonregulatory.

Warning Areas are airspace of defined dimensions over international waters that contain activity that may be hazardous to nonparticipating aircraft. Because international agreements do not provide for prohibition of flight in international airspace, no restrictions to flight are imposed. As such, warning areas are established in international airspace to alert pilots of nonparticipating aircraft to potential danger.

CFAs are established to contain activities that, if not conducted in a controlled environment, would be hazardous to nonparticipating aircraft. The approval of a CFA shall only be considered for those activities that are either of short duration or of such a nature that they could be immediately suspended upon notice that

such activity might endanger nonparticipating aircraft. Examples of such activities include: firing of missiles, rockets, anti-aircraft artillery, and field artillery; static testing of large rocket motors; blasting; and ordnance or chemical disposal.

MOAs are airspace of defined vertical and lateral limits outside of controlled airspace that are used to separate certain military flight activities from IFR traffic, and to identify for VFR traffic the areas where concentrated military aircraft operations may occur. When a MOA is active, IFR traffic may be cleared to enter and pass through the area if adequate IFR separation criteria can be met. Nonparticipating VFR aircraft are not prohibited from entering an active MOA; however, extreme caution is advised when such aircraft transit the area during military operations.

All MOAs within the United States are depicted on sectional aeronautical charts identifying the exact area, the name of the MOA, altitudes of use, published hours of use, and the corresponding controlling agency.

3.1.1.4 Military Training Routes

Military Training Routes (MTRs) are flight paths that provide a corridor for low-altitude navigation and training. Low altitude navigation training is important because aircrews may be required to fly at low altitudes for tens or hundreds of miles to avoid detection in combat conditions. To train realistically, the military and the FAA have developed MTRs. This system allows the military to train for low-altitude navigation at air speeds in excess of 250 knots. There are two types of MTRs, instrument routes (IR) and visual routes (VR).

Air Traffic Control Assigned Airspace (ATCAA) is airspace above 18,000 feet above MSL designed to accommodate non-hazardous high-altitude military flight training activities; this airspace remains in the control of the FAA and, when not in use by military aircraft, may be used to support civil aviation activities. ATCAA permits military aircraft to conduct high-altitude air-to-air combat training, practice evasion maneuvers, perform air refueling, and initiate or egress from attacks on targets within a range. ATC routes IFR traffic around this airspace when activated; ATCAA does not appear on any sectional or

enroute charts. Currently, by agreement with the FAA, no ATCAA is authorized over any of the existing airspace.

3.1.2 Existing Conditions

3.1.2.1 Mission

The 919th Special Operations Wing (919 SOW) at Duke Field is currently the only special operations wing in the Air Force Reserve. The unit provides and maintains the MC-130E Combat Talon I special operations aircraft designed for covert operations. The aircraft provides more than fifteen percent of helicopter aerial refueling training requirements to AFSOC. The wing also conducts U-28 and Combat Aviation Advisor training in association with the Air Force Special Operation Training Center and employs the MQ-1 Predator Unmanned Aerial System in association with the active-duty 3rd Special Operations Squadron, Cannon AFB, New Mexico (USAF 2011a).

3.1.2.2 Aircraft Inventory

For this EA, the baseline setting for the 919 SOW includes ten MC-130E Combat Talon I aircraft at Duke Field, located at Eglin AFB. The MC-130E aircraft is a four-propeller tactical airlift and refueler aircraft. The primary mission of the MC-130E is to provide infiltration, exfiltration, and resupply of special operations forces and equipment in hostile or denied territory. Secondary missions include psychological operations as well as helicopter and vertical lift air refueling (USAF 2011a). The MC-130E features terrain-following and terrain avoidance radars capable of operations as low as 250 feet AGL in adverse weather conditions. In addition, their navigation suites allow for land or airdrop on small, unmarked zones with pinpoint accuracy.

3.1.2.3 Airspace Operations

919 SOW MC-130E aircraft were allocated 2,320 total annual aircraft operating hours for Fiscal Year (FY) 2012. Of those, approximately 1,500 hours (65 percent) will be flown locally (i.e. within Eglin's Terminal and Restricted Airspace), the remainder will be flown outside of the Eglin Restricted Airspace and will include the use of SUAs and MTRs within the southeastern region (AFSOC 2012).

Duke Field is used for launch and recovery operations, training, and maintenance. The majority of day/night airland operations and airdrop training occurs at semi-prepared dirt airstrips and associated Drop Zones (DZs) within the Eglin Restricted Airspace. Duke Field's main runway is 8,000 feet in length and includes associated taxiway and apron pavements.

3.1.3 Approach to Impact Analysis

The significance of potential impacts to airspace management depends on the degree to which the aircraft proposed for beddown and operation would affect the airspace environment. Significant impacts could result if implementation of the Proposed Action would: 1) impose major restrictions on air commerce opportunities; 2) significantly limit airspace access to a large number of users; or 3) require modifications to air traffic control systems.

3.1.4 Impacts

3.1.4.1 Proposed Action

Under the Proposed Action, AFSOC proposes to stand up an Active Component Combat Aviation Advisor (CAA) Special Operations Squadron (SOS) and Special Operations Maintenance Squadron (SOMXS) at Duke Field — within Eglin AFB — including the purchase of an inventory of 16 light, twin-engine, fixed-wing AvFID aircraft. Nine (9) of the 16 aircraft could be continuously deployed around the world to various Theater Special Operations Commands in order to support the AvFID mission to advise and assist foreign partner nations. A Reserve Component squadron would be established and maintained at Duke Field to support the proposed AvFID training requirements and operational mission. AvFID aircraft would be allocated up to 4,800 annual flight hours domestically; only 1,440 (approximately 30 percent) of these proposed operating hours would be flown locally (i.e. within Eglin's Terminal and Restricted Airspace) (AFSOC 2012). Beddown of AvFID aircraft at Duke Field would be implemented simultaneously with the planned retirement of the 919 SOW's MC-130E aircraft and the 6 SOS's MC-130E aircraft. Under the new AvFID mission, Duke Field would primarily be used for launch and recovery operations, maintenance, and training. The majority of day/night airland operations and airdrop training

would be conducted on semi-prepared dirt airstrips and associated DZs within the Eglin Controlled Restricted Airspace currently utilized by the 919 SOW's MC-130E aircraft. The Active Component for the AvFID program would include 286 personnel and would be staffed by approximately 229 personnel from the 6 SOS (and/or other units), currently stationed at Hurlburt Field, and 57 additional military personnel not currently associated with the unit.

The proposed AvFID aircraft beddown and operations would result in an increase in total domestic annual operating hours. However, as previously discussed, only 1,440 of these proposed operating hours would be flown locally. The remainder of the proposed operating hours would be flown within the southeast region outside of the Eglin Controlled Restricted Airspace (AFSOC 2012). As a result, aircraft operations local to Duke Field and Eglin AFB would be slightly reduced under the Proposed Action. Consequently, aircraft activity occurring at Eglin AFB as a result of the Proposed Action would not surpass the ATC capacity of Eglin AFB. Additionally, no change to the configuration (i.e., size, shape, or location) of airspace is proposed or would be required to support implementation of the Proposed Action. No airspace areas or ATC facilities currently used by the MC-130E mission would be adversely impacted by implementation of the Proposed Action. In regard to regional airspace, annual operations occurring outside of the Eglin Restricted Airspace would be distributed over a large area and similarly would not exceed the established capacities of respective airspaces. Relative to regional aircraft activity, net increases in flight activity under the Proposed Action would be negligible. As a result, any impacts to airspace management at Eglin AFB or within the southeast region would be less than significant.

3.1.4.2 No-Action Alternative

If the No-Action Alternative were selected, AFSOC would not implement the Proposed Action; however, the scheduled retirement of the 919 SOW's MC-130E aircraft mission would still be carried out. Therefore, the implementation of the No-Action Alternative would result in the availability of additional terminal airspace at Duke Field as well as SUA for all other military aircraft operations at Eglin AFB. This increase in capacity would constitute a minor beneficial impact

to Airspace Management; however, the impact would be less than significant on a regional scale.

3.2 AIR QUALITY

3.2.1 Definition of Resource

Air quality is affected by stationary sources (e.g., industrial development) and mobile sources (e.g., motor vehicles). Air quality at a given location is a function of several factors including the quantity and type of pollutants emitted locally and regionally, and the dispersion rates of pollutants in the region. Primary factors affecting pollutant dispersion are wind speed and direction, atmospheric stability, temperature, the presence or absence of inversions, and topography.

3.2.1.1 Criteria Pollutants

Air quality in a given location is determined by the concentration of various pollutants in the atmosphere. National Ambient Air Quality Standards (NAAQS) are established by the United States Environmental Protection Agency (USEPA) for criteria pollutants, including: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter equal to or less than ten microns in diameter (PM_{10}) and 2.5 microns in diameter ($PM_{2.5}$), and lead (Pb). NAAQS represent maximum levels of background pollution that are considered safe, with an adequate margin of safety, to protect public health and welfare.

3.2.2 Existing Conditions

3.2.2.1 Climate

Average temperatures near Eglin AFB generally range from approximately 53 degrees Fahrenheit (^oF) in the winter months to approximately 82 ^oF in the summer months with an average annual temperature of 70 ^oF (National Weather Service 2010). Average annual rainfall near Eglin AFB is 65.27 inches (National Weather Service 2010).

Eglin AFB is located in a fairly breezy area. For each month of the year, the average wind speed is at least 8 miles per hour (mph) and the annual average wind speed is approximately 9.5 mph. The prevailing wind direction throughout the year is from the south-southwest (Windfinder 2012).

3.2.2.2 Local Air Quality

Duke Field and Eglin AFB are located in Okaloosa County, Florida, within the Mobile-Pensacola-Panama City-Southern Mississippi Interstate Air Quality Control Region (AQCR) (USEPA 1972) and the Northwest Florida Department of Environmental Protection (FDEP) Regulatory District. The Region of Influence (ROI) for this resource is the entire AQCR. A geographic area with air quality that is cleaner than the primary standard is called an "attainment" area; areas that do not meet the primary standard are called "nonattainment" areas. Table 3-1 summarizes the attainment status for the Mobile-Pensacola-Panama City-Southern Mississippi AQCR. Table 3-2 and Figure 3-1 present the most recently available baseline emissions inventory of criteria pollutants in Okaloosa County and the Mobile-Pensacola-Panama City-Southern Mississippi AQCR.

Table 3-1. Mobile-Pensacola-Panama City-Southern Mississippi AQCR Designation for Criteria Pollutants

National Ambient Air Quality Standard Criteria Pollutant	Designation
Carbon monoxide (CO)	Attainment
Nitrogen dioxide (NO_2)	Attainment
8-hour ozone (O_3) (as measured by precursors nitrogen oxides (NO_x) and volatile organic compounds (VOC)	Attainment
Particulate matter with aerodynamic diameter of 10 micrometers or less (PM_{10})	Unclassifiable (Attainment)
Particulate matter with aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$)	Attainment
Sulfur (measured as sulfur dioxide, SO_2)	Attainment
Lead (Pb)	Attainment

Sources: USEPA 2012b; USAF 2004; FDEP 2010.

Table 3-2. 2008 Baseline Emissions Inventory for Okaloosa County, Florida

	CO (tpy)	SO_x (tpy)	NO_x (tpy)	VOC (tpy)	PM_{10} (tpy)*	$PM_{2.5}$ (tpy)*	Pb (tpy)
Total Emissions	43,879	75	5,474	7,752	3,807	587	0.27

Notes: *Particulate matter emissions include both filterable and condensable emissions.
tpy – tons per year
Source: USEPA 2008.

Pollutant	Averaging Time	Florida Standards	Federal Standards		
		Concentration	Primary	Secondary	Method
Ozone (O_3)	1 Hour [a]	0.12 ppm (235 µg/m^3)	0.12 ppm (235 µg/m^3)	Same as Primary Standard	Ultraviolet Photometry
	8 Hour (2008) [b] 8 Hour (1997) [c]	—	0.075 ppm (147 µg/m^3) 0.080 ppm (157 µg/m^3)		
Respirable Particulate Matter (PM_{10})	24 Hour [d]	150 µg/m^3	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	50 µg/m^3	—		
Fine Particulate Matter ($PM_{2.5}$)	24 Hour [e]	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual [f] Arithmetic Mean	—	15 µg/m^3		
Carbon Monoxide (CO)	8 Hour [g]	9 ppm (10 mg/m^3) [l]	9 ppm (10 mg/m^3)	None	Non-Dispersive Infrared Photometry (NDIR)
	1 Hour [g]	35 ppm (40 mg/m^3) [l]	35 ppm (40 mg/m^3)		
Nitrogen Dioxide (NO_2)	Annual Average	0.05 ppm	53 ppb [h]	Same as Primary Standard	Gas Phase Chemiluminescence
	1 Hour	100 ppb [i]	100 ppb [i]	None	
Sulfur Dioxide (SO_2)	Annual Average	0.020 ppm (53 µg/m^3)	0.030 ppm (80 µg/m^3) [j]	—	Spectrophotometry (Pararosaniline Method)
	24 Hour [g]	0.14 ppm (365 µg/m^3) [g]	0.14 ppm (365 µg/m^3)	—	
	1 Hour	—	75 ppb [j]	—	
	3 Hour	0.5 ppm (1300 µg/m^3) [g]	—	0.5 ppm (1300 µg/m^3)	
Lead	Calendar Quarter	1.5 µg/m^3 [l]	1.5 µg/m^3	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Average	0.15 µg/m^3 [l]	0.15 µg/m^3 [k]	Same as Primary Standard	

a 1) EPA revoked the 1-hour ozone standard in all areas, although some areas having continuing obligations under that standard ("anti-backsliding").
2) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is ≤1.

b To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm (effective May 27, 2008).

c 1) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.08 ppm.
2) The 1997 standard – and the implementation rules for that standard – will remain in place for implementation purposes as EPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.
3) EPA is in the process of reconsidering these standards (set in March 2008).

d Not to be exceeded more than once per year on average over 3 years.

e To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m^3 (effective December 17, 2006).

f To attain this standard, the 3-year average of the weighted annual mean $PM_{2.5}$ concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m^3.

g Not to be exceeded more than once per year.

h The official level of the annual NO_2 standard is 0.053 ppm, equal to 53 ppb, which is shown here for the purpose of clearer comparison to the 1-hour standard.

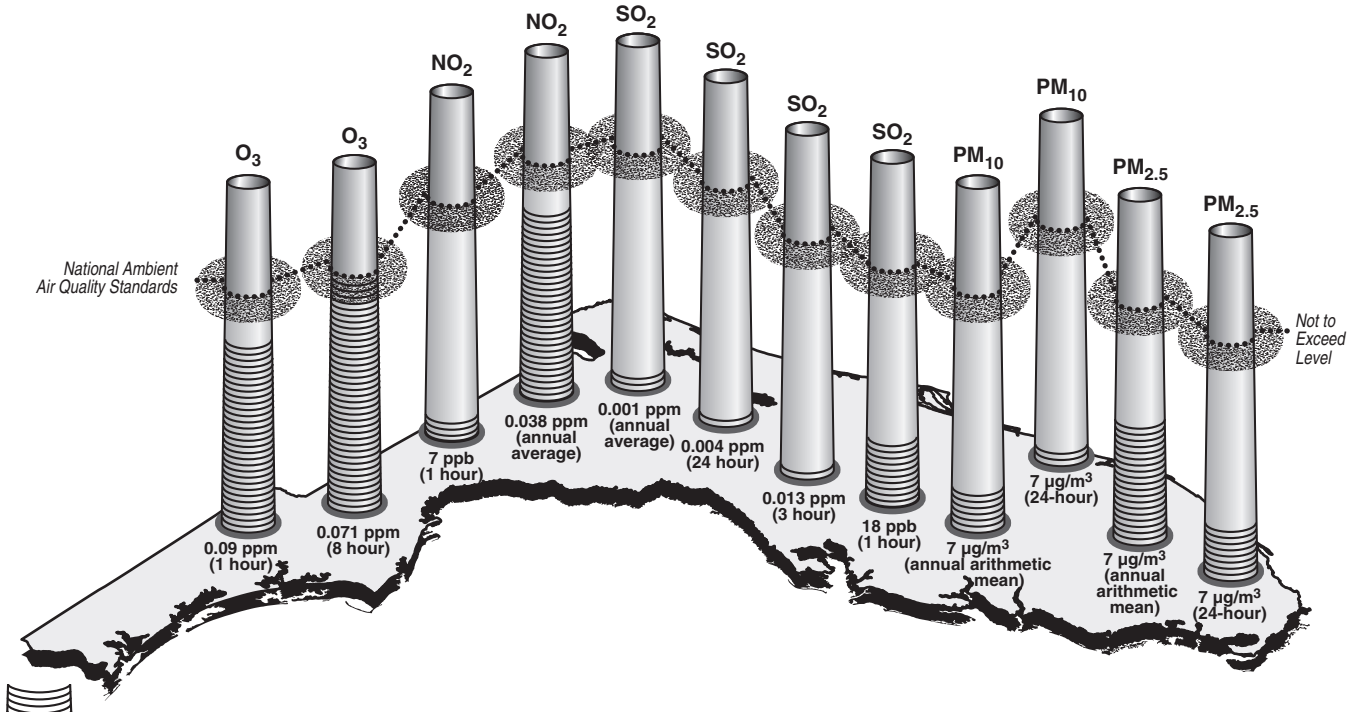
i To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb (effective January 22, 2010.

j Final rule signed June 2, 2010. To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb.

k Final rule signed October 15, 2008.

l Data not available.

ppm – parts per million by volume (micromoles of pollutant per mole of gas)
µg/m^3 – micrograms per cubic meter
mg/m^3 – milligrams per cubic meter
(ppm*molecular weight)/0.0224 = µg/m^3



Sources: USEPA 2011d; FDEP 2010.

EA

Florida and National Ambient Air Quality Standards and Measured Emission Levels (2010)
Mobile-Pensacola-Panama City-Southern Mississippi AQCR

3-1

3.2.2.3 Emissions at Duke Field, Eglin AFB

Eglin AFB operates under Title V Operating Permit 0910031-013-AV that regulates air emissions from stationary sources. Eglin AFB is a major source of criteria pollutants under the Title V program as it has the potential to exceed the thresholds for various criteria pollutants.

Mobile sources are not regulated under the Clean Air Act or Title V operating permit, but are considerable components of total base air emissions. These emissions, therefore, are periodically inventoried as part of Eglin AFB's air quality management program. Emissions from mobile sources include CO, NO_x, Pb, PM_{10}, sulfur oxides (SO_x) and volatile organic compounds (VOCs). In addition, motorized USAF vehicles and portable equipment are also considered to be mobile sources, including equipment operated and refueled under vehicle inspection and maintenance provisions.

Eglin AFB currently emits hazardous air pollutants (HAP) during the course of base activities such as storing fuel, using paints, and running generators. These emissions are estimated annually in the Eglin AFB Air Emission Inventory; however, Eglin AFB is not a major source of HAP. The air emissions summary for mobile and stationary sources at Eglin AFB is presented below in Table 3-3.

Table 3-3. Eglin AFB Mobile and Stationary Source Air Emissions Inventory

Pollutant Emission Sources	CO (tpy)	SO_x (tpy)	NO_x (tpy)	VOC (tpy)	PM_{10} (tpy)	Pb (tpy)	HAP (tpy)
Eglin AFB Point and Fugitive Stationary Source Emissions	50.24	0.68	63.45	108.23	31.80	0.04	12.07
Eglin AFB Mobile Source Emissions†	749.99	30.55	271.06	93.69	115.41	0.00	10.69

Note: †Mobile sources emissions include motor vehicle, aircraft, and aerospace ground equipment emissions.
Sources: Air Force Material Command 2011a; Air Force Material Command 2011b.

3.2.3 Approach to Impact Analysis

AFI 32-7040, *Air Quality Compliance and Resource Management*, provides a framework for ensuring that USAF actions conform to appropriate

implementation plans. Section 2.4 of AFI 32-7040, *Conformity Planning*, ensures that such actions conform to the applicable implementation plan through the USEPA General Conformity Rule. Section 2.5 of AFI 32-7040, *NEPA and Environmental Impact Analysis Process Planning*, outlines requirements under NEPA for analysis of air quality impacts with respect to the Prevention of Significant Deterioration (PSD)/New Source Review (NSR) (40 CFR Part 51), HAP emissions, and emissions of any other pollutants regulated under the Clean Air Act such as Ozone Depleting Substances (ODSs) that will result from implementation of the Proposed Action. Direct and indirect emissions of criteria pollutants or their precursors associated with the Proposed Action must be calculated for all non-exempt emission sources, including mobile and stationary, as well as construction-phase emissions.

With respect to the General Conformity Rule, effects on air quality would be considered significant if the Proposed Action would result in an increase of the Mobile-Pensacola-Panama City-Southern Mississippi Interstate AQCR's emissions inventory by 10 percent or more, or if such emissions exceed *de minimis* threshold levels established in 40 CFR 93.153(b) for criteria pollutants already in nonattainment.

3.2.4 Impacts

3.2.4.1 Proposed Action

Fugitive Dust Emissions

Under the Proposed Action, fugitive dust would be generated during facility construction activities, including site preparation, clearing, and grading, as well as combustion emissions from construction-related vehicles and equipment. Dust emissions generated by such activities can vary substantially depending on levels of activity, specific operations, and prevailing meteorological conditions. The standard dust emission factor for general non-residential construction activity is conservatively estimated at 0.19 tons of PM_{10} generated per acre per month of activity (USEPA 2006). The standard emission factor for new road construction, which is assumed to involve extensive earthmoving and heavy construction vehicle travel, is 0.42 tons of PM_{10} generated per acre per month of activity (USEPA 2006). Per procedures documented in the National Emissions

Inventory (USEPA 2006), $PM_{2.5}$ emissions are estimated by applying a particle size multiplier of 0.10 to PM_{10} emissions.

The USEPA National Emission Inventory documentation assumes that the emissions resulting from construction related activity are uncontrolled. Fugitive dust resulting from activities related to implementation of the Proposed Action could be reduced through standard dust minimization practices (e.g., watering soils to depth of trenching, regularly watering exposed soils, soil stockpiling, and soil stabilization). These dust minimization measures can reduce dust generation by up to 50 percent (USEPA 2006). Based on the conservatively high estimate that all project acreage would be disturbed at any one time (20.42 acres or 887,802 square feet), a projected total of approximately 96.9 tons of dust (including both PM_{10} and $PM_{2.5}$) per year would be generated if all construction activities were uncontrolled and conducted simultaneously. After all standard dust minimization practices were implemented fugitive dust emissions would be reduced to approximately 48.5 tons of dust per year. (Refer to Appendix C for a full list of air emission factors, calculations, and assumptions.) Emission estimates assume ground disturbance would occur continuously over 12 months. Maximum potential dust emissions would occur during FY 2013, when development of all facilities under the Proposed Action would occur. Although any substantial increase in fugitive dust emissions is inherently adverse, increased fugitive dust emissions associated with the Proposed Action would be short-term and temporary, resulting in minor impacts to air quality.

Construction-related Combustion Emissions

Combustion emissions would be generated from construction-related vehicles and equipment as well as workers' commute vehicles. The greatest intensity of combustion emissions would occur during FY 2013, during which construction of the new AvFID Operations and Maintenance Facilities as well as the substantial improvement of the existing airfield would occur. Specific information including the types of construction equipment required for specific tasks, the hours of equipment operation, and the operating conditions vary widely from project to project. For the purposes of this analysis, a standard assortment of heavy construction equipment was used (i.e., an off-highway truck, motor grader, trencher, loader, paving equipment, and roller). Each piece

of equipment was assumed to operate a total of 1,920 hours during construction (12 months total, 8 hours per day, 5 days per week, and 4 weeks per month). PM_{10} and $PM_{2.5}$ emissions were assumed to be generated at a rate of 0.011 pounds per square foot of demolished or remodeled area; the total demolished area was estimated to be approximately 59,302 square feet. (Refer to Appendix C for a full list of air emission factors, calculations, and assumptions.)

In addition to construction equipment emissions, pollutants generated as a result of construction employee commuting were also calculated, based on an estimated 20 employees commuting a 20-mile round trip distance, over the 260 days during which construction is assumed to occur. Potential emissions resulting from construction activities are presented in Table 3-4.

Table 3-4. Potential Emissions from Construction-related Activities – Fiscal Year 2013

Source	CO (tpy)	NO_x (tpy)	SO_x (tpy)	VOCs (tpy)	PM_{10} & $PM_{2.5}$ (tpy)
Demolition	-	-	-	-	0.33
Construction Equipment	3.20	7.57	1.11	0.81	0.46
Construction Personnel Commuting	0.88	0.09	0.00	0.13	0.00
Controlled Fugitive Dust	-	-	-	-	48.5
Total	**4.08**	**7.65**	**1.11**	**0.94**	**49.29**
de minimis thresholds	100	100	100	100	100
Significant Impact?	**No**	**No**	**No**	**No**	**No**

Notes: See Appendix C for detailed calculations.
tpy – tons per year

Combustion emissions associated with construction-related vehicles and equipment are conservatively estimated, as most vehicles would be driven to and kept at work sites for the duration of construction activities. Furthermore, as is the case with PM_{10} emissions associated with trenching and site preparation activities, all emissions generated by construction equipment in addition to fugitive dust generation would be temporary and short-term, representing only negligible impacts to air quality. Emissions of all criteria pollutants under the Proposed Action are far below *de minimis* thresholds for attainment areas.

Therefore, any short-term impacts to air quality resulting from construction activities would be less than significant.

Operational Emissions

The Proposed Action would replace the 919 SOW's inventory of 10 MC-130E aircraft with 16 light, twin-engine fixed wing aircraft, nine (9) of which may be deployed globally at all times. Although a specific AvFID aircraft and engine type has not yet been identified and associated emissions cannot be calculated at this time, operational emissions associated with the Proposed Action are not anticipated to exceed existing conditions. In contrast to the MC-130E aircraft, which has four engines and a maximum gross takeoff weight of 155,000 pounds, the proposed AvFID aircraft would be a light, twin engine aircraft with a maximum gross weight not expected to be exceed 20,000 pounds (AFSOC 2012). Furthermore, because local annual aircraft activity would not increase under the Proposed Action, local mobile source emissions would be less than those associated with the MC-130E mission at Duke Field as shown in Table 3-5. Additionally, in concert with the retirement of the 919 SOW's inventory of MC-130E aircraft, the 6 SOS would also be retiring their inventory of two C-130E aircraft and six helicopters (two Mi-17s and four UH-1N/Hs). This would constitute an additional reduction in mobile operational emissions from aircraft (see Table 3-5). Consequently, the net impact to operational emissions is expected beneficial but less than significant.

Table 3-5. Mobile Source Emissions Resulting from the MC-130E Aircraft at the 919 SOW and the 6 SOS during Calendar Year 2010

Unit	CO (tpy)	NO_x (tpy)	SO_x (tpy)	VOCs (tpy)	$PM_{<10}$ (tpy)	HAP (tpy)
6 SOS	7.39	6.83	0.41	3.01	2.49	0.03
919 SOW	5.10	4.71	0.28	2.12	1.72	0.02

Note: tpy – tons per year
Source: Air Force Materials Command 2011b.

Implementation of the Proposed Action would include the addition of 57 new active personnel not currently stationed at Eglin AFB. As these personnel are not currently associated with Eglin AFB, they represent an additional source of

mobile source emissions (under the assumption they would each commute to Duke Field). However, as the vast majority of regional mobile source air emissions at Eglin AFB are associated with aircraft operation. The slight increase associated with personal commutes would not represent a significant increase in mobile source emissions.

In regard to long term-stationary source emissions, although a new paint booth would be constructed under the Proposed Action, the paint booth associated with Building 3067 is scheduled for demolition under the Duke Field Master Plan (USAF 2004). Therefore, the net difference in long-term stationary source emissions associated with implementation of the Proposed Action is expected to be negligible. No significant net changes to stationary source emissions are expected to occur.

Net increases to operational emissions, both from stationary and mobile sources, at Duke Field and Eglin AFB would be negligible under the Proposed Action. Total emissions would remain below *de minimis* levels and any adverse impacts to air quality under the Proposed Action would be less than significant.

Green House Gas Emissions

The construction and operational phases of the Proposed Action would include combustion of fossil fuels, thereby leading to a potential increase in greenhouse gas emissions. However, the proposed AvFID mission represents a net decrease in annual allocated flight hours relative to the MC-130 mission, which is scheduled for retirement, and consequently it also represents a net decrease in green house gas emissions over the its lifetime.

The CEQ recommended in a Draft Guidance (CEQ 2010) that emissions equal to or greater than 25,000 metric tons annually should be included in NEPA assessments. Green house gas emissions resulting from fossil fuel combustion during the construction phase of the Proposed Action would not approach 25,000 metric tons of green house gases. Therefore, no major impacts to local or regional air quality would result from activities associated with implementation of the Proposed Action at Duke Field.

General Conformity

The Mobile-Pensacola-Panama City-Southern Mississippi Interstate AQCR is in attainment for all criteria pollutants (FDEP 2010, USEPA 2012b); therefore, a General Conformity determination is not required. Further, emissions resulting from implementation of the Proposed Action would be negligible as emissions of each criteria pollutant would not exceed 100 tons per year (tpy) and/or 10 percent of its regional emission inventory. Therefore, impacts to air quality resulting from implementation of the Proposed Action would be less than significant.

3.2.4.2 No-Action Alternative

If the No-Action Alternative were selected, no short-term impacts to air quality associated with proposed development activities would occur. However, the scheduled retirement of the 919 SOW's MC-130E aircraft mission would continue and operational emissions from mobile sources would be reduced at Duke Field, resulting in a beneficial long-term impact to air quality.

3.3 GEOLOGICAL RESOURCES

3.3.1 Definition of Resource

Geological resources consist of surface and subsurface materials and their properties. Principal geologic factors affecting the ability to support structural development are seismic properties (i.e., potential for subsurface shifting, faulting, or crustal disturbance), soil stability, and topography. The term *soil*, in general, refers to unconsolidated materials overlying bedrock or other parent material. Soil structure, elasticity, strength, shrink-swell potential, and erodibility all determine the ability for the ground to support man-made structures. Soils typically are described in terms of their complex type, slope, physical characteristics, and relative compatibility or constraining properties with regard to particular construction activities and types of land use. Topography is the change in elevation over the surface of a land area. An area's topography is influenced by many factors, including human activity, underlying geologic material, seismic activity, climatic conditions, and erosion. A discussion of topography typically encompasses a description of surface elevations, slope, and distinct physiographic features (e.g., mountains) and their influence on human activities.

3.3.2 Existing Conditions

3.3.2.1 Duke Field and Eglin AFB

Geology

The area that encompasses Eglin AFB consists of unnamed Holocene and Pliocene sands. Holocene sediments in Florida occur near the present coastline at generally less than 5 feet below ground surface (ft bgs) (United States Geological Survey [USGS] 2010). The sediments include quartz sands, carbonate sands and muds, and organics (USGS 2010). The Citronelle Formation is widespread in the Gulf Coastal Plain. It consists of gray to orange, often mottled, unconsolidated to poorly consolidated, very fine to very coarse, poorly sorted, clean to clayey sands (USGS 2010). The sands on the Citronelle Formation consist of approximately non-marine quartz sands, interspersed with some gravel and relatively thin clay

lenses (Becker et al. 1989). Kaolinite is the primary clay found in the two types of sandy clay units forming the Citronelle Formation.

Underneath these formations is the Pensacola confining bed (Miocene aged) ranging from 140 feet below MSL in central Walton County to more than 125 feet below MSL in southwestern Okaloosa County (Becker et al. 1989). This impermeable confining bed, composed of clays and clayey sands with some limestone and shell fragments, creates the top layer of the sand and gravel aquifer and the upper limestone layer of the Floridan Aquifer (as discussed in Section 3.5, *Water Resources*).

Topography

Topography pertains to the general shape and arrangement of a land surface, including its height and the position of its natural and human-made features. Duke Field is located within a coastal plain. The region is surrounded by lower terrain areas including the Shoal River to the north as well as Choctawhatchee Bay to the south. The topography of Duke Field comprises relatively flat land and rolling uplands. Elevations range from approximately 160 feet above MSL in the north to approximately 200 feet above MSL in the south.

Soils

The major soil-mapping units underlying Duke Field include Lakeland sand, on 0 to 5 percent slopes, urban land, and Troup sand, on 8 to 12 percent slopes (Natural Resources Conservation Service [NRCS] 2012). Other areas, particularly in the vicinity of Silver Creek, have been identified as Dorovan muck (NRCS 2012).

The Lakeland sand soil series underlies over 500 acres within the Duke Field property boundaries and is the primary soil type for all of Eglin AFB. These soils are primarily excessively drained, brownish yellow sands that have developed along the tops of broad ridges and slopes. The Lakeland sand soil series are abundant on both level and steep uplands and occur over 6 ft bgs.

All Lakeland sands soil horizons (i.e. layers) are fine sands with 5 to 10 percent silt content with clay occurring in the upper sections of the horizons. The unique combination of almost pure sand texture and very high soil infiltration, permeability, and hydrologic conductivity, has created a distinctive landscape of excessively drained soils that have a high capacity to move water through the soil but limited capacity to hold water and nutrients in the soil (Overing & Watts 1989).

3.3.3 Approach to Impact Analysis

An impact to geological resources would be considered significant if implementation of the Proposed Action would: 1) increase potential occurrences of erosion, siltation, or geological hazards (e.g., landslides); 2) incorporate engineering or construction techniques that do not adequately address potential geologic hazards; or 3) expose people or structures to major geological hazards. Generally, impacts with regard to geological resources can be avoided or minimized if proper construction techniques, erosion/siltation control measures, and structural engineering designs are incorporated into project development. Since no unique geological resources are located within the footprints of facilities or infrastructure associated with the Proposed Action (refer to Section 3.3, *Geological Resources*), further analysis of unique geological resources has been eliminated. In addition, since potential impacts to geological resources would be limited to the project vicinity within the boundaries of Duke Field, there would be no impacts to regional geology and further analysis of off-site resources has been eliminated.

3.3.4 Impacts

3.3.4.1 Proposed Action

Implementation of the Proposed Action would result in the demolition of outdated facilities and the construction of new AvFID operations and maintenance facilities. The implementation of the AvFID beddown would also involve improvement and reconfiguration of current airfield taxiway and apron pavements. Potential impacts to geological resources associated with the Proposed Action would be limited to ground-disturbing activities (i.e.,

demolition, site preparation, and construction) which would take place on and/or adjacent to previously disturbed soils that are known to be capable of supporting such development. The construction of the AvFID Squad Ops Facility would occur in open space underlain by Lakeland soils, which pose no severe constraints to development (City of Milton 2002). Lakeland soils are moderately susceptible to erosion; however, best management practices (BMPs) would be incorporated as part of the Proposed Action to reduce potential erosion and/or compaction during all construction-related activities. With implementation of BMPs, construction-related impacts to soils would negligible as they would be reduced and localized to the project footprint.

As a result of the total acreage of disturbed soil associated with the implementation of the Proposed Action, a Stormwater Pollution Prevention Plan (SWPPP) and Notice of Intent (NOI) for construction activities would be developed and implemented (USEPA 2012a). With adherence to measures and procedures established in these planning documents, adverse impacts resulting from the implementation of the Proposed Action would be minor and short term.

In addition to impacts to soils, implementation of the Proposed Action would also result in minor impacts to topography. The construction of the AvFID Squad Ops Facility would require grading of the open space area to the west of the currently developed portion of the airfield. The elevation near the main gate on McWhorter Street is approximately 220 feet above MSL, while the elevation nearer to the developed region of the airfield is approximately 200 feet above MSL. Grading of this surface could create noticeable alterations to the local topography; however, these impacts would be minor and localized to the project site. Impacts to geology under the Proposed Action, including impacts to soil and topography, would therefore be less than significant.

3.3.4.2 No-Action Alternative

Under the No-Action Alternative, the proposed AvFID beddown and associated facilities construction would not occur. Therefore, no impacts to geological resources, adverse or otherwise, would be anticipated.

3.4 BIOLOGICAL RESOURCES

3.4.1 Definition of Resource

Biological resources include native or naturalized plants and animals and the habitats in which they occur. Sensitive biological resources are defined as those plant and animal species listed as threatened or endangered, or proposed as such, by the United States Fish and Wildlife Service (USFWS). These resources also include plant and animal species listed as threatened or endangered, or state-designated species of special concern by the Florida Fish and Wildlife Conservation Commission. The Federal Endangered Species Act (ESA) of 1973 protects listed species against killing, harming, harassment, or any action that may damage their habitat. Federal Species of Concern are not protected by law; however, these species could become listed and protected at any time. State listed species are protected in accordance with Rules 68A-27.003 and 68A-27.005, the most recent approved editions of which went into effect on November 8, 2010.

Migratory birds, as listed in 50 CFR 10.13, are both ecologically and economically important. They provide for numerous recreational activities, including bird watching, scientific study, and hunting, all of which are practiced by many American citizens. In 2001, Executive Order (EO) 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, was issued to focus attention of Federal agencies on the environmental effects to migratory bird species and, where feasible, implement policies and programs, which support the conservation and protection of migratory birds.

3.4.2 Existing Conditions

Vegetation

Although some stands of old growth longleaf pine still occur, the majority the forests within Eglin AFB are secondary, having been cut at least once between the 1800s and early 1900s. Current vegetation communities occurring on Eglin AFB fall into four general ecological associations including Longleaf Pine Sandhills, Pine Flatwoods, Barrier Islands, and Wetlands/Riparian areas.

Duke Field is a cantonment area largely covered by improved grounds, with landscaped species and non-native grasses; however, this airfield is surrounded by longleaf pine forest habitat. In addition, riparian areas exist along the western boundary of Duke field, as well as adjacent to the north of the airfield, where habitat is created by the presence of Silver Creek and Pearl Creek.

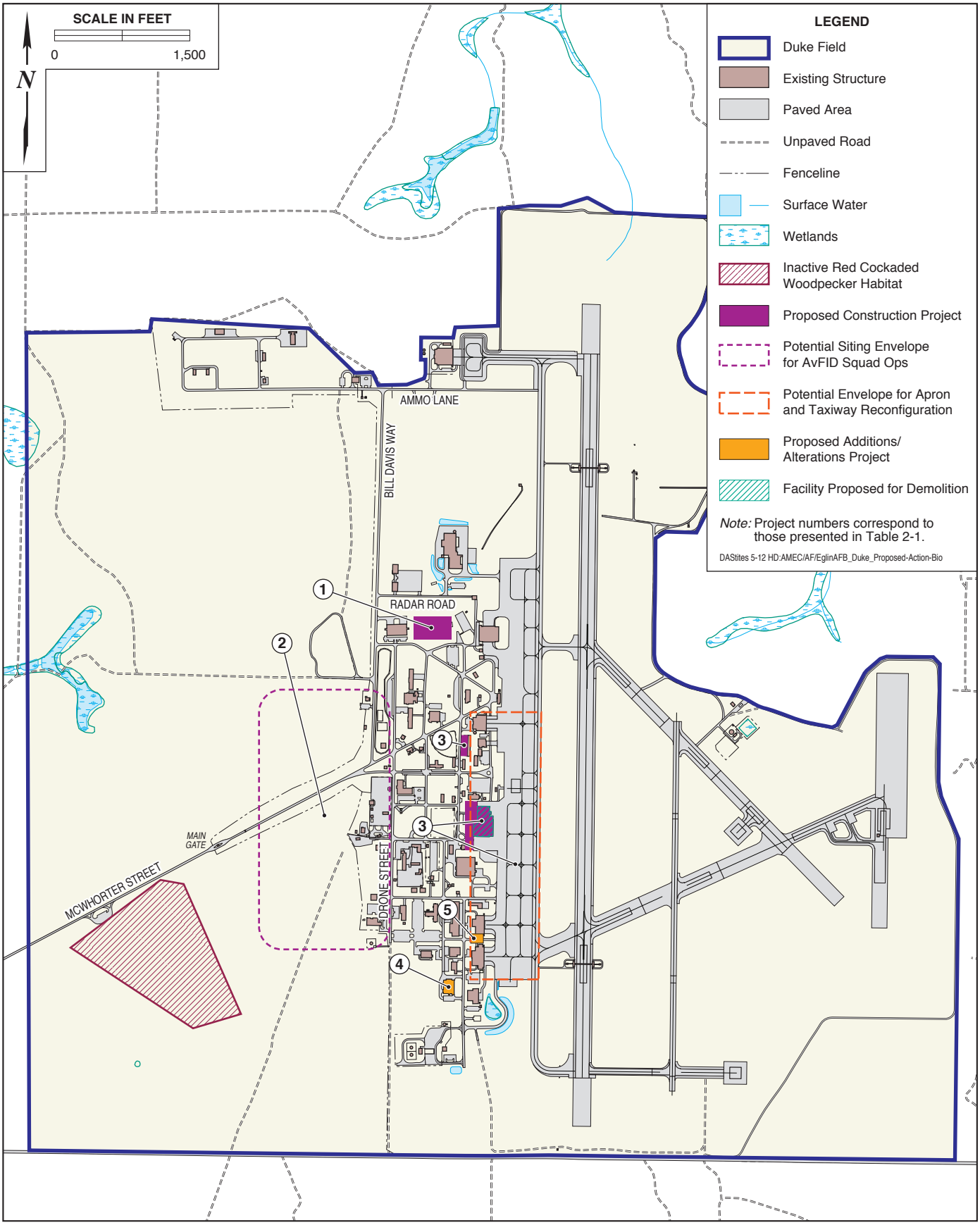
The longleaf pine forest, the most extensive natural vegetation community on Eglin AFB, is characterized by an open savanna-like structure with a moderate to tall canopy of longleaf pine, a sparse mid-story of oaks and other hardwoods, and a diverse groundcover comprised mainly of grasses, forbs, and low stature shrubs. Longleaf pine forests consist of a high diversity of species adapted to fire and the heterogeneous conditions that it creates.

Wildlife

Eglin AFB supports a rich diversity of wildlife as a result of its wide variety of habitats. Due to the large portions of undeveloped area, the habitats occurring here are largely representative of natural Florida Panhandle habitats, which support a large number of rare and sensitive species. However, the vast majority of land area associated with Duke Field is developed or covered by manicured fields. Wildlife that may occur in the general area consists primarily of urban or rural species. However, the federally endangered red-cockaded woodpecker (*Picoides borealis*) has established nesting trees and potential foraging areas located in the range areas surrounding Duke Field, notably to the southeast and west across from Florida State Highway 85 (USAF 2011b).

Sensitive Species

Several federally and/or state listed endangered or threatened species are known to occur within the boundaries of Eglin AFB (Table 3-6). A number of these species have the potential to occur on Duke Field. The state listed gopher tortoise has been documented within the boundaries of Duke Field. Additionally, potential nesting and foraging habitat for the red-cockaded woodpecker occurs in the immediate vicinity of Duke Field (USAF 2011b); however, this habitat has been inactive for some time (Figure 3-2). Table 3-7 presents a summary of federally threatened or endangered species as well as other Species of Special Concern likely to occur in Okaloosa County, Florida.



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Biological Resources and Proposed Construction Projects at Duke Field

FIGURE 3-2

No warranty is made by the USAF as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. This map is a "living document," in that it is intended to change as new data become available and are incorporated into the GIS database.

Table 3-6. Federally or State Listed Special Status Species Occurring on Eglin AFB

Status	Wildlife	Plants	Total
Federally listed species	11	1	12
State listed species	12	55	67
State listed species of special concern	19	0	19

Source: Florida Natural Areas Inventory 2007.

Table 3-7. Federally Threatened, Endangered, and other Species of Concern Likely to Occur in Okaloosa County, Florida

Scientific Name	Common Name	Federal Status	State Status
AMPHIBIANS & REPTILES			
Amybstoma bishopi	reticulated flatwoods salamander	E	SSC
Caretta caretta	loggerhead turtle	T	T
Chelonian mydas	green turtle	E	E
Dermochelys coriacea	leatherback turtle	E	E
Drymarchon couperi	eastern indigo snake	T	T
Eretmochelys imbricate imbricate	hawksbill turtle	E	E
Lepidochelys kempii	Kemp's ridley turtle	E	E
Gopherus polyphemus	gopher tortoise	-	SSC
Hyla andersonii	pine barrens treefrog	-	SSC
Macroclemys temminckii	alligator snapping turtle	-	SSC
Pituophis melanoleucus mugitus	Florida pine snake	-	SSC
Rana okaloosae	Florida bog frog	-	SSC
BIRDS			
Calidris canutus	red knot	C	-
Charadrius melodus	piping plover	T	T
Mycteria americana	wood stork	E	E
Picoides borealis	red-cockaded woodpecker	E	SSC
Charadium alexandrines tenuirostris	southeastern snowy plover	-	T
Cistothorus palustris marianae	Marian's marsh wren	-	SSC
Egretta caerulea	little blue heron	-	SSC
Egretta thula	snowy egret	-	SSC
Egretta tricolor	tricolored heron	-	SSC
Falco peregrines tundrius	Arctic peregrine falcon	-	E
Falco sparverius paulus	southeastern kestrel	-	T

Table 3-7. Federally Threatened, Endangered, and other Species of Concern Likely to Occur in Okaloosa County, Florida (Continued)

Scientific Name	Common Name	Federal Status	State Status
BIRDS (Continued)			
Haematopus palliatus	American oystercatcher	-	SSC
Pelecanus occidentalis	brown pelican	-	SSC
Rynchops niger	black skimmer	-	SSC
Sterna antillarum	least tern	-	T
FISH			
Acipenser oxyrinchus desotoi	gulf sturgeon	T	SSC
Etheostoma okaloosae	Okaloosa darter	T	E
Fundulus jenkinsi	saltmarsh topminnow	-	SSC
Pteronotropis welaka	bluenose shiner	-	SSC
MAMMALS			
Peromyscus polionotus allophrys	Choctawhatchee beach mouse	E	E
Trichechus manatus latirostris	West Indian manatee	E	E
Tamias striatus	eastern chipmunk	-	SSC
Ursus americanus floridanus	Florida black bear	-	T
INVERTEBRATES			
Fusconaia escambia	narrow pigtoe	C	-
Hamiota australis	southern sandshell	C	-
Villosa choctawensis	Choctaw bean	C	-

Sources: Florida Natural Areas Inventory 2007; Florida Fish and Wildlife Conservation Commission 2011.

3.4.3 Approach to Impact Analysis

Significance criteria for impacts to biological resources are based on 1) the importance (i.e., legal, commercial, recreational, ecological, or scientific) of the resource; 2) the proportion of the resource that would be affected relative to its occurrence in the region; 3) the sensitivity of the resource to proposed activities; and 4) the duration of ecological ramifications. Impacts to biological resources would be considered significant if implementation of the Proposed Action would impact a threatened or endangered species, greatly diminish habitat for a plant or animal species, substantially diminish a regionally or locally important plant or animal species, interfere with wildlife movement or reproductive behavior, and/or result in an infusion of exotic plant or animal species.

3.4.4 Impacts

3.4.4.1 Proposed Action

Vegetation

Under the Proposed Action, construction and demolition activities would occur on or adjacent to the developed areas of Duke Field. Most of the naturally occurring vegetation at the airfield has been removed during previous construction and grading activities. Construction-related activities occurring on the airfield will have negligible impacts to vegetation. Construction of the AvFID Squad Ops Facility would affect open space areas with longleaf pine forest habitat. However, the longleaf pine forest is the most extensive natural community type on Eglin AFB, accounting for approximately 80 percent of the land cover on the base. Any potential disturbance of this habitat type under the Proposed Action would represent a negligible change to the total acreage of longleaf pine habitat on Eglin AFB; therefore, impacts to vegetation resulting from the implementation of the Proposed Action would be less than significant.

Wildlife

Under the Proposed Action, impacts to wildlife are expected to be minor. Much of the construction activity would occur within the developed area of Duke Field and the AvFID beddown would result in aircraft operations that are similar to existing operations described in Section 3.1, *Airspace Management*. Although Eglin AFB supports a rich diversity of wildlife, the species associated with Duke Field are largely characteristic of urban or developed environments. In addition, wildlife is actively discouraged through landscaping and vegetation management techniques for the purpose of reducing Bird/Wildlife Aircraft Strike Hazard (BASH).

As previously described, construction of the AvFID Squad Ops Facility would impact longleaf pine forest habitat, a habitat type utilized by over 68 bird species and a number of small mammals throughout Eglin AFB (Carey 1992). Although moderate adverse impacts are expected to occur locally, these impacts would be negligible on a regional scale. Therefore, assuming that all appropriate precautions and avoidance measures for identified sensitive species are followed,

impacts to wildlife would be less than significant over both the short and the long-term.

Sensitive Species

According to reports prepared to summarize field data gathered during biological surveys conducted at Eglin AFB, a total of 12 federally listed and 67 state listed species have been documented on the base (refer to Table 3-6 and Table 3-7).

Suitable habitat (i.e., inactive nesting trees) for the federally endangered red-cockaded woodpecker (*Picoides borealis*) exists within the vicinity of the Duke Field and potential foraging areas for this species have been identified and designated in the range areas surrounding the airfield. This habitat occurs most notably to the southeast and west of Duke Field. An inactive nesting cluster is located south of McWhorter Street; however, this area would be entirely avoided during construction of the AvFID Squad Ops Facility (refer to Figure 3-2). Coordination with Eglin Natural Resources Section would be required prior to any ground disturbing activities. A gopher tortoise survey and red-cockaded woodpecker survey would also be required. If a gopher tortoise burrow is located within the project area and cannot be avoided, the tortoise would be relocated in accordance with Florida Fish and Wildlife Conservation Commission (FWC) guidelines. If an RCW tree is located within the project area, an Endangered Species Act (ESA) Section 7 consultation would need to be completed. Additional BMP practices are included in Section 4, *Management Requirements*. In addition, FWC concurred in their correspondence dated 8 June 2012 that these measures would adequately serve to minimize or avoid impacts to fish or wildlife resources and the Proposed Action would be consistent with FWC authorities under Chapter 379, Florida Statutes (see Appendix B).

Implementation of the Proposed Action is expected to have only minor effects on sensitive species as ample habitat is available elsewhere in the vicinity of Duke Field and within the boundaries of Eglin AFB. Therefore, with implementation of appropriate avoidance and management procedures, the Proposed Action would have a less than significant impact on sensitive species.

3.4.4.2 No-Action Alternative

Implementation of the No-Action Alternative would result in no changes to the existing vegetation, wildlife, or sensitive species occurring around Duke Field. Conditions would remain as described in Section 3.4, *Biological Resources*.

3.5 WATER RESOURCES

3.5.1 Definition of Resource

Water resources analyzed in this EA include *surface water* and *groundwater*. Surface water resources include lakes, rivers, and streams that collect and distribute water from precipitation and natural or human-created water collection systems. Groundwater comprises subsurface water resources that are interlaid in layers of rock and soil and recharged by surface water seepage. Other issues relevant to water resources include watershed areas affected by existing and potential hazards related to *floodplains*.

3.5.2 Existing Conditions

The ROI for water resources includes surface waters on Duke Field, associated drainage basins, and groundwater underlying the installation and surrounding areas.

3.5.2.1 Regional Setting

Eglin AFB lies in the East Gulf Coastal Plain physiographic region, which is characterized by a high percent of land area in wetlands, a diversity of river and stream systems, as well as ecologically important estuarine and tidal systems (LandScope 2012). More specifically Eglin AFB is located within the Pensacola Bay Watershed, which includes the Shoal River. The Shoal River, located immediately adjacent to the north of Eglin AFB, drains an area of 474 square miles and has an average annual discharge of approximately 1,100 cubic feet per second (USGS 2012).

Eglin AFB is underlain by two aquifers, the Sand and Gravel Aquifer and the Floridan Aquifer (Miller 1990). The Sand and Gravel Aquifer is located above Floridan Aquifer, the latter of which is one of the most productive aquifers in the world spanning an area of 100,000 miles, including the entire area of Florida. The descriptions of the Sand and Gravel Aquifer and Floridan Aquifer given below apply to all of Eglin AFB, including Duke Field.

Water in the Sand and Gravel Aquifer exists in both unconfined (i.e. a free water surface or water table conditions) and confined (i.e. under pressure) conditions (Miller 1990). However, water from this aquifer is not a primary supply source on Eglin AFB because it is of relatively lower quality than the water available from the underlying Floridan Aquifer (Northwest Florida Water Management District [NWFWMD] 2008). The Floridan Aquifer consists of a thick sequence of interbedded limestone and dolomite. The top of the aquifer is about 50 feet below MSL in the northeast corner of the base and increases to about 700 feet below MSL in the southwestern area of the base. The top of the aquifer is about 400 to 450 feet below MSL in the main base area. Water flow direction is northeast to southwest. The Floridan Aquifer exists under confined conditions throughout Eglin AFB, bounded above and below by the Pensacola Clay Formation (NWFWMD 2008). Groundwater storage and movement in the upper limestone layer occurs in interconnected, intergranular pore spaces, small solution fissures, and larger solution channels and cavities.

Increasing concerns about the existing and projected water supply from the Floridan Aquifer has resulted in the designation of the coastal areas located to the south of Eglin AFB in Santa Rosa, Okaloosa, and Walton Counties, as a Water Resources Caution Area (WRCA). This designation by the NWFWMD requires withdrawal permit holders to implement water conservation measures and maximize their water use efficiency. In addition, permit holders in the WRCA are subject to increased water usage reporting requirements. Furthermore, the designation of WRCA also prohibits the use of the Floridan Aquifer for non-potable purposes (NWFWMD 2008).

At Eglin AFB, the Floridan Aquifer is used extensively for drinking water while only small amounts are withdrawn from the Sand and Gravel Aquifer. However, the Sand and Gravel Aquifer provides an alternative source for non-potable uses at Eglin AFB.

3.5.2.2 Duke Field, Eglin AFB

Surface Water

Natural surface water features in the vicinity of Duke Field include Silver Creek and Pearl Creek, both of which are tributaries emptying into the Shoal River. Within the property boundaries of Duke Field there are two small natural surface water features including a small unnamed creek that runs through the Runway 18 clear zone (CZ) and a small wetland located approximately a half mile to the west of the developed region of the airfield (refer to Figure 3-2). In addition, stormwater runoff from Duke Field is drained from the area by a series of drainage ditches.

Groundwater

Duke Field is underlain by the Sand and Gravel Aquifer as well as the Floridan Aquifer, both of which underlie the entirety of Eglin AFB. These aquifers are described in detail above, Section 3.5.2.1, Regional Setting. Water supply for Duke Field is provided by deep water wells, which draw from the Floridan Aquifer (USAF 2011b).

Floodplains

Duke Field is located entirely outside of the designated 100- and 500-year floodplains associated with the Shoal River to the north (Federal Emergency Management Agency [FEMA] 2002).

Wetlands

The Eglin AFB complex supports approximately 65,000 acres of wetlands, which are influenced by seasonal fluctuations in precipitation, overland or near surface flow, shallow groundwater, or some combination of these hydrologic processes. Wetland habitat occurring on Duke Field is limited to a small area on the western property boundary approximately a half mile from the developed region of the base, just east of Florida State Highway 85 (refer to Figure 3-2). This wetland marks the beginning of Pearl Creek, which drains into the Shoal River. Although it is primarily surrounded by longleaf pine forest, this wetland is also

surrounded by a sparse road network with a culvert at its western terminus. Consequently, this wetland habitat is likely marginal with regard to other wetland areas on Eglin AFB.

3.5.3 Approach to Impact Analysis

An impact to water resources would be significant if implementation of the Proposed Action would: 1) reduce water availability to or interfere with the supply of existing users; 2) create or contribute to the overdraft of groundwater basins or exceed decreed annual yields of water supply sources; 3) adversely affect surface or groundwater quality; 4) threaten or damage unique hydrologic characteristics; or 5) violate established laws or regulations that have been adopted to protect or manage water resources, including management plans adopted by Duke Field or Eglin AFB.

3.5.4 Impacts

3.5.4.1 Proposed Action

Surface Water

Other than the wetland located on the western property boundary and the unnamed creek traversing the Runway 18 CZ, there are no natural drainages at Duke Field. Under the Proposed Action, no construction-related activity would occur near these locations. In addition, BMPs would be implemented to reduce impacts to other surface water resources at Duke Field, such as detention ponds and drainage ditches, which occur near some of the proposed construction sites.

Implementation of the Proposed Action would increase the cover of impermeable surfaces at Duke Field. As a result of the cumulative soil disturbance acreage associated with the Proposed Action, a construction storm water permit, comprised of a SWPPP and NOI, would be prepared and implemented. With these measures in place, the quality of surface water in the vicinity of Duke Field are not anticipated to be adversely affected under the Proposed Action; therefore, impacts to surface water would be less than significant.

Groundwater

Implementation of the Proposed Action would include the establishment of approximately 446,800 square feet (10.28 acres) of additional impermeable surfaces at Duke Field, which would reduce local groundwater recharge capabilities. Although this would result in local impacts to hydrology, the predominantly undeveloped character of surrounding land at Eglin AFB would render this change negligible on a regional scale.

The addition of the new facilities at Duke Field would provide for 286 additional personnel, 57 of which are not currently stationed at the Eglin AFB complex. This increase in personnel would result in increased water usage at the airfield. The domestic water supply at Duke Field is provided by deep underground wells, which draw from the Floridan Aquifer. While the aquifer is one of the largest in the country, there are increasing concerns about its existing and projected water supply (see Section 3.5, *Water Resources*). However, water supplies at the airfield are currently adequate and a back-up supply is present in the form of a water main provided by Okaloosa County (USAF 2011b). Additionally, the AvFID Squad Ops Facility would represent a negligible source of water usage on a regional scale. Consequently, the Proposed Action would have less than significant impacts on groundwater resources.

Floodplains

FEMA flood maps indicate that Duke Field is located entirely outside designated 100- and 500-year floodplains (FEMA 2002). As a result, the implementation of the Proposed Action would have no impact on floodplains in the region.

Wetlands

Wetland habitat is present along the western boundary of Duke Field, as described in Section 3.5, *Water Resources*. This represents the only wetland habitat within Duke Field; however, all construction-related components of the Proposed Action occur more than 0.5 miles to the east of this wetland area. Therefore, implementation of the Proposed Action would result in no impacts, adverse or otherwise, to wetlands.

3.5.4.2 No-Action Alternative

Under the No-Action Alternative, surface water, groundwater, and floodplains would remain unchanged from baseline conditions as described in Section 3.5, *Water Resources*. No impacts to water resources, adverse or otherwise, would occur.

3.6 LAND USE

3.6.1 Definition of Resource

Land use comprises the natural conditions or human-modified activities occurring at a particular location. Human-modified land use categories may include residential, commercial, industrial, transportation, communications and utilities, agricultural, institutional, recreational, and other developed uses. Management plans and zoning regulations determine the type and extent of land use allowable in specific areas and are often intended to protect specially designated or environmentally sensitive areas.

3.6.2 Existing Conditions

The ROI for land use is limited to Eglin AFB and, where applicable, land use policies pertaining to Okaloosa County.

3.6.2.1 Regional Setting

Eglin AFB is one of 19 component installations that make up the Department of Defense (DoD) Major Range Test Facility Base. It is situated among three counties—Santa Rosa, Okaloosa, and Walton. The primary function of Eglin AFB is to support research, development, testing and evaluation of conventional weapons and electronic systems. It also provides support for joint training of operational units. Eglin AFB is composed of 724 square miles of land with a total of 127,868 square miles of charted air space, of which only 2.5 percent is located over land (Tetra Tech, Inc. 2009). Land use categories at Eglin AFB include *Airfield, Aircraft Operations and Maintenance, Industrial, Administrative, Community, Residential, Medical, Outdoor Recreation, Open Space,* and *Water.*

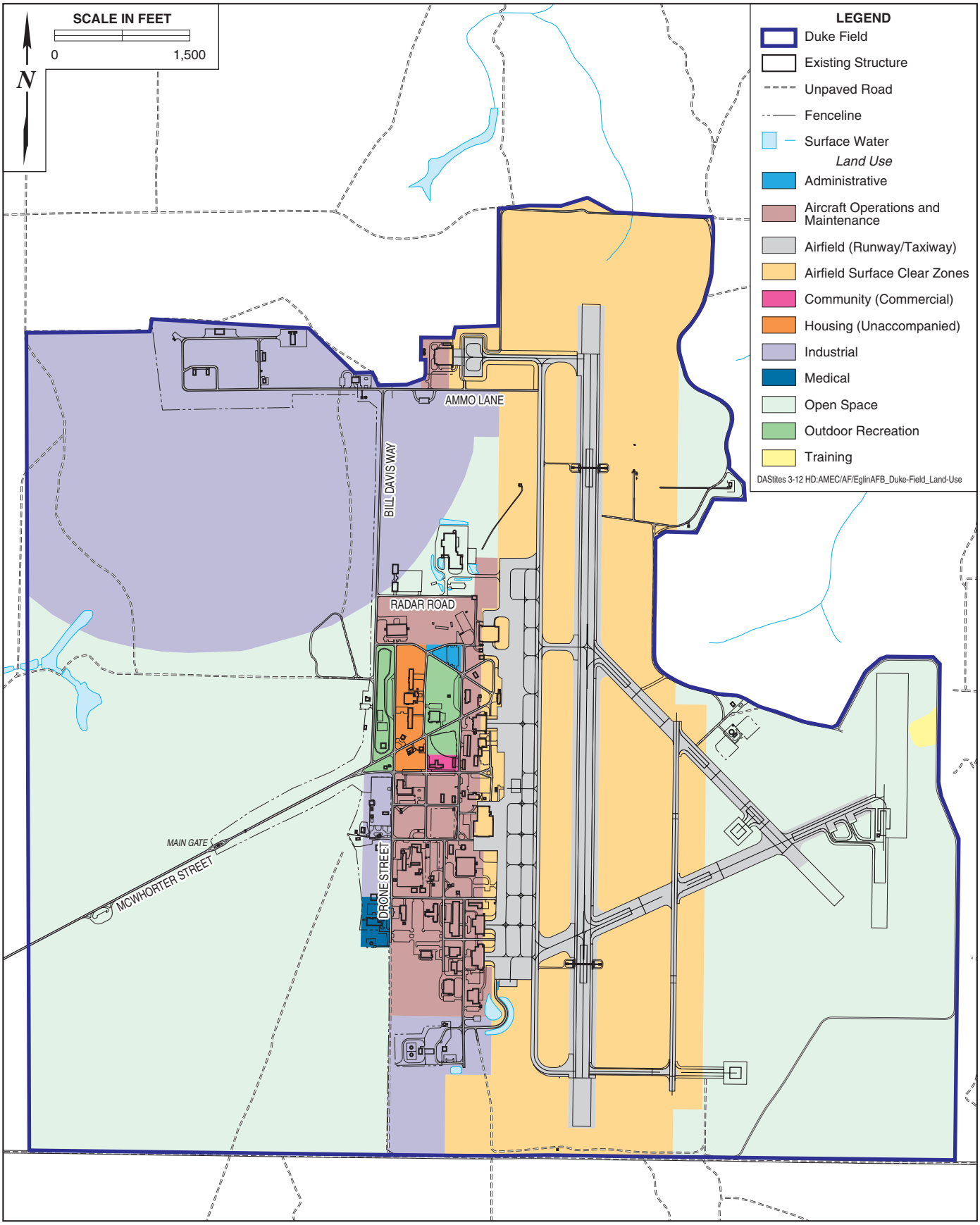
Land use areas adjacent to Eglin AFB include *Agricultural, Commercial, Conservation, Industrial, Institutional, Low Density Residential, Mixed Use, Recreational,* and *Rural Residential* (Okaloosa County 2011). In addition, there is a River Protection Zone located immediately to the north of Eglin AFB, which includes Shoal River and a number of its tributaries (FDEP 2011).

Noise and airfield safety contours as well as encroachment protection zones (Okaloosa County 2011) have been delineated around Eglin AFB and adjacent areas to restrict building heights, as well as the establishment of noise-sensitive receptors (e.g., schools, hospitals, etc.) and otherwise incompatible uses. Refer to Section 3.12, *Safety*, for a discussion of airfield safety zones around Eglin AFB and to Section 3.7, *Noise*, for a discussion of noise contours at Duke Field.

3.6.2.2 Duke Field

Duke Field encompasses approximately 2,700 acres in the northern region of Eglin AFB (USAF 2008a). It contains extensive airfield land uses, which include an 8,000-foot runway and associated taxiways, aprons, and airfield operations as well as maintenance facilities. Other facilities include range laser amenities, base operations and supply, airmen housing, an all-ranks club, fire department, and outdoor recreation facilities (USAF 2004). Land uses at Duke Field are further described below.

Airfield land uses are subdivided into the *Primary Surface, Clear Zones, and Exclusion Areas* as well as the *Runways, Taxiways, and Aprons*. The primary surface and clear zones were designated by different airfield planning criteria than the exclusion areas; however, they are considered a single category because they are all designated as no-build zones. The runways, taxiways, and aprons are associated with the movement of aircraft and the safety zones required by that activity. This land use category includes the most active and intrusive land use types. *Aircraft Operations and Maintenance* includes facilities that support the flightline activities, most of which occur immediately adjacent to the aircraft, aprons, and runways. *Community* land use includes the small Base Exchange, which is located in the center of Duke Field, and is the principle community support facility. *Housing* land uses include the airmen dormitories as well as the dining hall, which is located near McWhorter Avenue and Phillips Street. *Industrial* land use includes warehousing and other similar uses. *Open space* surrounds the cantonment area of Duke Field. It is comprised of a large contiguous forest that provides the low profile setting for the 919 SOW training activities. Additionally, *Outdoor Recreation* land use includes the sports fields located near the housing area (USAF 2008a). Figure 3-3 depicts existing land uses at Duke Field.



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Land Use at Duke Field

FIGURE 3-3

No warranty is made by the USAF as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. This map is a "living document," in that it is intended to change as new data become available and are incorporated into the GIS database.

3.6.3 Approach to Impact Analysis

The severity of potential land use impacts is based on the level of land use sensitivity in areas affected by the Proposed Action. In general, the Proposed Action would result in significant impacts to land use if it would: 1) be inconsistent or in noncompliance with applicable land use plans or policies; 2) preclude the viability of existing land use; 3) preclude continued use or occupation of an area; 4) be incompatible with adjacent or vicinity land use to the extent that public health or safety is threatened; or 5) conflict with airfield planning criteria established to ensure the safety and protection of human life and property.

3.6.4 Impacts

3.6.4.1 Proposed Action

Under the Proposed Action, all construction and demolition projects would be implemented as described in Section 2.0, *Proposed Action and Alternatives*. Each construction component of the Proposed Action will be sited in a way such that it consolidates like land uses and improves operational efficiency and safety at Duke Field. Furthermore, all facilities would be consistent with USAF planning policies and guidelines and would be compatible with existing land use guidelines. Under the Proposed Action, existing aprons and taxiways would be reconfigured to comply with the most current USAF airfield criteria, representing a beneficial impact within this resource area. The AvFID Squad Ops Facility would be the sole construction component occurring outside of the developed region at Duke Field. Under the Proposed Action, this facility is sited in the open space along the western margin of the airfield. Though the construction of the AvFID Squad Ops Facility would constitute a change in land use, this project is consistent with the Area Development Plan prepared for Duke Field (USAF 2011b). Therefore, impacts to land use resulting from the implementation of the Proposed Action would be less than significant.

3.6.4.2 No-Action Alternative

Under the No-Action Alternative, land use would remain unchanged from current conditions, as described in Section 3.6, *Land Use*. No impacts to land use, adverse or otherwise would be anticipated under implementation of the No-Action Alternative.

3.7 NOISE

3.7.1 Definition of Resource

Noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or otherwise results in an adverse human response. Actual response to noise can vary according to the type and characteristics of the noise source, the distance between the noise source and receptor, the sensitivity of the receptor, and the time of day. Sensitive noise receptors are identified as facilities or land uses that would be most sensitive to the effects of noise, such as residences, schools, patient care facilities, and child care centers.

The unit used to measure the loudness of noise is the *decibel* (dB). Most community noise standards utilize *A-weighted decibels* as the measure of noise, as it provides a high degree of correlation with human annoyance and health effects. A-weighting de-emphasizes the very low and very high frequencies of sound in a manner similar to functioning of the human ear. Day-night sound level (DNL) is a noise metric that averages A-weighted sound levels over a 24-hour period, with an additional 10-dB penalty added to noise events occurring between 10:00 PM and 7:00 AM. This penalty is intended to compensate for generally lower background noise levels at night and the additional annoyance of nighttime noise events.

The *Air Installation Compatible Use Zone* (AICUZ) program was established by the DoD in response to the Noise Control Act of 1972 to promote an environment free from noise that jeopardizes public health or welfare. Eglin AFB has an AICUZ program (USAF 2006b); however, designated noise zones, Accident Potential Zones (APZs), and Runway Protection Zones (RPZs) have been all been delineated prior to the introduction of the F-35 Lightening II. Therefore, the noise contours presented in the 2006 AICUZ are largely outdated, and instead the contours recently developed for the F-35 and shown in the Area Development Plan for Duke Field (USAF 2011b) are used to describe the projected noise environment at Duke Field.

3.7.2 Existing Conditions

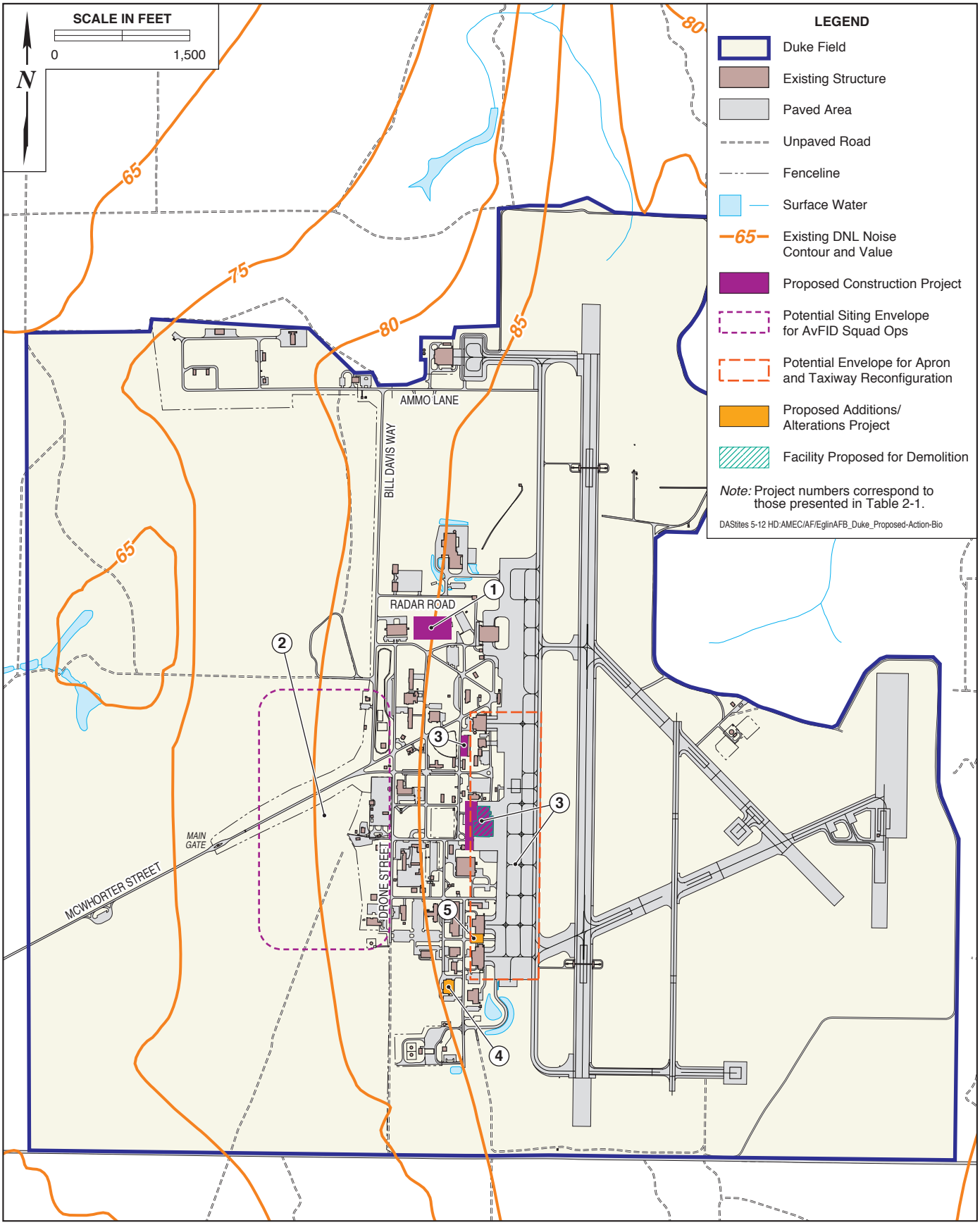
The ROI for noise is limited to Duke Field and adjacent areas including Okaloosa County.

3.7.2.1 Duke Field and Vicinity

Ambient noise levels in and around Duke Field are generally dominated by military aircraft operations. All existing land use designations, except industrial and open space, are located completely within the 80 DNL noise contour associated with the new F-35 aircraft (Figure 3-4), which conduct touch-and-go training, carrier landing deck training, and emergency landing field training at Duke Field (USAF 2011b). The F-35 aircraft is perceived as two to three times louder than the Air Force's F-15 aircraft (USAF 2008b). This level of noise creates conflicts for *Administrative*, *Community*, *Housing*, *Medical,* and *Outdoor Recreation* land uses. Other sources of noise in the vicinity of Duke Field include vehicular traffic, construction, and equipment operation; however, these sources do not significantly contribute to the noise environment.

3.7.3 Approach to Impact Analysis

Noise impact analyses typically evaluate potential changes to existing noise environments that would result from implementation of the Proposed Action. Potential changes in the noise environment can be beneficial (i.e., if they reduce the number of sensitive receptors exposed to unacceptable noise levels), negligible (i.e., if the total area exposed to unacceptable noise levels is essentially unchanged), or adverse (i.e., if they result in increased exposure to unacceptable noise levels). An increase in noise levels due to introduction of a new noise source can also create an adverse impact on the surrounding environment.



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Existing DNL Noise Contours and Proposed Construction Projects at Duke Field

FIGURE 3-4

No warranty is made by the USAF as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. This map is a "living document," in that it is intended to change as new data become available and are incorporated into the GIS database.

3.7.4 Impacts

3.7.4.1 Proposed Action

Construction-Related Impacts

Implementation of the Proposed Action would have minor, temporary impacts on the noise environment in the vicinity of the proposed construction and demolition sites. Use of heavy equipment for site preparation and development (e.g., vegetation removal, grading, and back fill) would generate noise exposure above typical ambient levels at western portions of the airfield. However, noise generation would be typical of construction activities and would be confined to normal working hours. In addition, the noise generated under the Proposed Action would be short-term and would be negligible with respect to the regional operational noise (i.e., aircraft) noise at Duke Field, and regionally on Eglin AFB. Further, there are no sensitive receptors in the vicinity of Duke Field that would be adversely affected by the noise generated from construction activity at the airfield. Therefore, impacts to the noise environment resulting from the Proposed Action would be less than significant.

Operations-Related Impacts

Implementation of the Proposed Action would result in the beddown of sixteen light-twin-engine, fixed wing aircraft, nine of which could be deployed globally at all times. Although the specific aircraft and engine type has not yet been identified for the proposed AvFID mission, the existing MC-130E aircraft — which has four engines — would be replaced by the twin-engine AvFID aircraft, representing a minor reduction in noise level contribution compared to existing MC-130E aircraft. However, the 919 SOW would be allotted additional annual aircraft operations hours, rendering any reduction in noise level contribution at Duke Field negligible. In general, the proposed beddown of AvFID aircraft would not be expected to result in any measurable changes to the established noise contours at Duke Field, which are almost entirely dominated by operations associated with the much louder F-35 aircraft.

The proposed AvFID Squad Ops Facility would be constructed outside of the existing 80 dB DNL contour. Standard, modern construction techniques can be expected to provide an interior noise level reduction of 20 to 30 dB, resulting in compatible interior noise levels for the proposed facility. Furthermore, the facilities associated with the Proposed Action would not comprise a substantial source of new noise. Therefore, once operational, the Proposed Action would result in less than significant impacts to noise over the long term.

3.7.4.2 No-Action Alternative

If the No-Action Alternative were selected, short-term noise impacts anticipated to occur during implementation of the Proposed Action would not occur. Although the scheduled retirement of the 919 SOW's MC-130E aircraft mission would reduce contributions to operational noise levels, this reduction would not be expected to result in any measurable changes to the established noise contours at Duke Field which are almost entirely dominated by operations associated with the much louder F-35 aircraft and conditions would remain as described in Section 3.7, *Noise*.

3.8 CULTURAL RESOURCES

3.8.1 Definition of Resource

Several Federal laws and regulations have been established to manage cultural resources, including the National Historic Preservation Act (NHPA) of 1966, the Archaeological and Historic Preservation Act of 1974, the American Indian Religious Freedom Act of 1978, the Archaeological Resource Protection Act of 1979, and the Native American Graves Protection and Repatriation Act of 1990. In addition, US Department of Defense Instruction (DoDI) 4710.02, *Department of Defense Interactions with Federally-Recognized Tribes* (2006) governs DoD interactions with federally-recognized tribes and EO 13175, *Consultation and Coordination with Indian Tribal Governments* (2000), charges Federal departments and agencies with regular and meaningful consultation with Native American tribal officials in the development of policies that have tribal implications. In order for a cultural resource to be considered significant, it must meet one or more of the following criteria for inclusion on the National Register of Historic Places (NRHP):

> "The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and: 1) that are associated with events that have made a significant contribution to the broad patterns of our history; or 2) that are associated with the lives or persons significant in our past; or 3) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or 4) that have yielded, or may be likely to yield, information important in prehistory or history" (36 CFR § 60:4).

3.8.2 Existing Conditions

The ROI for cultural resources is limited to Eglin AFB and Duke Field.

3.8.2.1 Regional Setting

This area of Florida was first occupied by Paleo-Indian populations approximately 12,000 years ago. These early population were geographically tethered to inland watering holes and coastal areas with access to water. As the climate warmed and became more arid, humans began to exploit a wider geographic range. New technologies to exploit additional plant and animals resources were also developed during this time period; these tools are often recovered from archaeological sites within the region (Anderson and Sassaman 2004).

In the early 1500s, the Spanish began to influence this region, affecting even populations untouched by direct colonization through the introduction of foreign pathogens (Saunt 2004), which decimated native populations. French and British populations also moved through the region laying claim to large portions land (Saunt 2004). However, European involvement in Florida ended in 1819 when the United States received the rights to the remaining Spanish claims in the through treaty (Dowd 2004).

3.8.2.2 Eglin AFB

History of Eglin AFB

Eglin AFB was originally established as an Army bombing and gunnery base in 1935 (USAF 2012a). In 1940, as World War II approached, Congress ceded the surrounding Choctawhatchee National Forest from the United States Forest Service to the War Department (USAF 2012a). During World War II, Eglin would gain notoriety as the location where Doolittle's raid was planned and where captured German V-1 rockets were reverse-engineered by American scientists into the JB-2 buzz bomb weapon (USAF 2012a). Because of this early foundation, Eglin Field would remain an important armaments testing facility for the United States military even after the war (USAF 2012a).

In December 1957, Eglin AFB would become home to the newly established Air Proving Ground Center. Numerous systems would be tested at Eglin Range during the 1950s and 1960s, including the Boeing/Michigan Aeronautical

Research Center ground-to-air missile system and Hound Dog, a standoff, air-to-ground missile (USAF 2012a).

Eglin's Cultural Resources Section has identified approximately 2,000 archaeological sites on Eglin AFB. Although the number is constantly changing as sites are evaluated or discovered, approximately 300 sites across the reservation are eligible or potentially eligible for listing on the NRHP. Research has also identified at least 28 historic cemeteries on the base. Furthermore, Eglin AFB oversees other historic properties, including 125 structures associated with significant events of the twentieth century (USAF 2008a).

Cultural Resources at Duke Field

A moderately-sized cultural restricted area exists to the west of Duke Field, encroaching on its western boundary; however, no known archeological sites have been identified at Duke Field (USAF 2011b). The Area Development Plan indicates that further archeological investigations of the region are required in order to determine any potential eligibilities for protection prior to any future development (USAF 2011b). However, there are no known cultural resources or cultural restricted areas located within the proposed project envelope.

3.8.3 Approach to Impact Analysis

Cultural resources are subject to review under both Federal and state laws and regulations. Section 106 of the NHPA empowers the Advisory Council on Historic Preservation to comment on federally initiated, licensed, or permitted projects affecting cultural sites listed or eligible for inclusion on the NRHP.

Once cultural resources have been identified, an eligibility determination is made according to the criteria set forth in NHPA. The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

a) that are associated with events that have made a significant contribution to the broad patterns of our history; or

b) that are associated with the lives of persons significant in our past; or

c) that embody distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

d) that have yielded, or may be likely to yield, information important in prehistory or history (Advisory Council on Historic Preservation 2008).

Significance evaluation is the process by which resources are assessed relative to significance criteria for scientific or historic research, for the general public, and for traditional cultural groups. Only cultural resources determined to be significant (i.e., eligible for the NRHP) are protected under the NHPA.

Analysis of potential impacts to cultural resources considers both direct and indirect impacts. Direct impacts may occur by 1) physically altering, damaging, or destroying all or part of a resource; 2) altering the characteristics of the surrounding environment that contribute to resource significance; 3) introducing visual, audible, or atmospheric elements that are out of character with the property or alter its setting; or 4) neglecting the resource to the extent that it is deteriorated or destroyed.

Direct impacts can be assessed by identifying the types and locations of Proposed Actions and determining the exact locations of cultural resources that could be affected. Indirect impacts primarily result from the effects of project-induced population increases and the resultant need to develop new housing areas, utilities services, and other support functions necessary to accommodate population growth. These activities and facilities' subsequent use can disturb or destroy cultural resources.

3.8.4 Impacts

3.8.4.1 Proposed Action

Impacts to Archaeological Resources

As a part of the Duke Field Master Plan Environmental Assessment (USAF 2004), all proposed construction, demolition, and expansion areas on Duke Field were evaluated for archaeological resources. No prehistoric or historic cultural resources were encountered during the archaeological investigation. Furthermore, all proposed construction and demolition activities would be sited outside of the cultural restricted area, which encroaches on the western boundary of Duke Field (USAF 2011b). Therefore, no significant impacts to archaeological resources would be expected.

Although the affected area has been evaluated, the potential exists—however slight—for currently buried remains to be uncovered during ground-disturbing activities (i.e., construction). Should cultural resources be discovered during construction, the contractor would be required to report the discovery immediately to the 96th Civil Engineer Group, Cultural Resources Section (96 CEG/CEVSH). Additionally, activities would be suspended until a qualified archaeologist could determine the significance of the resource(s).

Impacts to Historic Structures

None of the buildings associated with projects under the Proposed Action are recognized as being historically significant, and no NRHP-listed resources have been recorded in vicinity of the component project sites.

Consultation with the Florida State Historic Preservation Office (SHPO) in compliance with Section 106 of the NHPA was conducted prior to any project related construction. In addition, consultation with appropriate Native American representatives occurred during the Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) process. Archaeological surveys and building evaluations in the project area did not reveal any resources meeting the criteria for eligibility for listing in the NRHP. Consequentially, because the installation lacks documented archeological artifacts as well as

buildings or static displays of historic significance impacts to cultural resources are not anticipated under the Proposed Action. Further, Florida SHPO has concurred with these findings in their correspondence dated 15 June 2012 (see Appendix B).

3.8.4.2 No-Action Alternative

If the No-Action Alternative were selected, cultural resources would remain as described in Section 3.8, *Cultural Resources*, and no significant impacts would occur.

3.9 HAZARDOUS MATERIALS AND WASTES

3.9.1 Definition of Resource

Hazardous materials are defined as substances with strong physical properties of ignitability, corrosivity, reactivity, or toxicity that may cause an increase in mortality, a serious irreversible illness, incapacitating reversible illness, or pose a substantial threat to human health or the environment. Hazardous wastes are defined as any solid, liquid, contained gaseous, or semisolid waste, or any combination of wastes that pose a substantial present or potential hazard to human health or the environment.

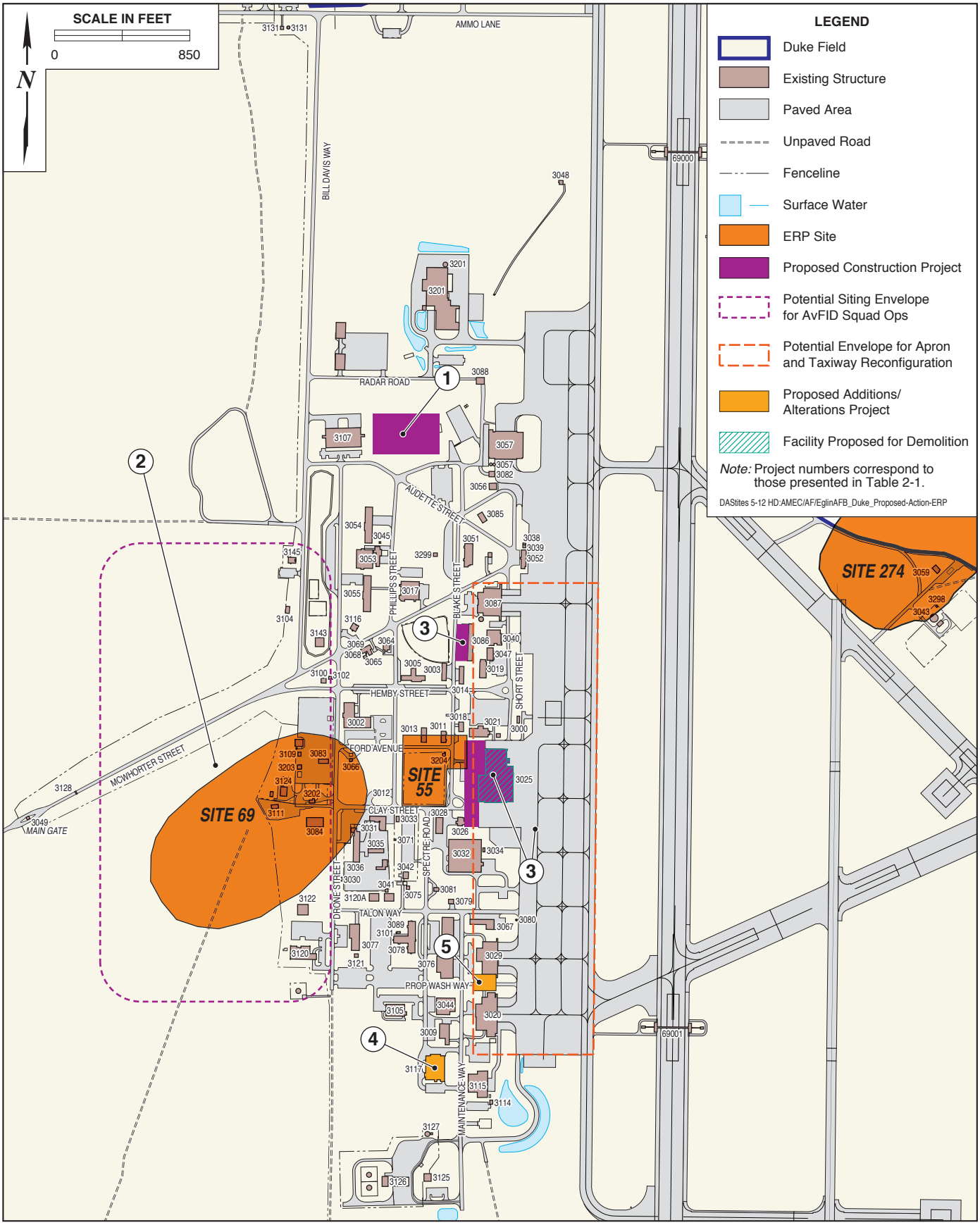
3.9.2 Existing Conditions

3.9.2.1 Environmental Restoration Program

The DoD has developed the Environmental Restoration Program (ERP) to facilitate thorough investigation and cleanup of contaminated sites located at military installations. The ERP at Duke Field includes ERP sites (formally known as Installation Restoration Program [IRP] sites) where hazardous wastes, substances or pollutants, radioactive wastes, or petroleum were released. The Duke Field ERP includes four active sites (USAF 2006a). The discussion of relevant ERP sites below has been limited to ERP site ST-69, which is located within the potential siting envelope for the AvFID Squad Ops facility.

ERP Site ST-69

Site ST-69 is located at Duke Field and includes former Building 3073, a maintenance building previously located in the southwest corner of the motor pool facility of the 728th Air Control Squadron, Transportation Branch (Figure 3-5). The site also includes a former waste oil tank located 40 feet from former Building 3073. The former waste oil tank consisted of two 55-gallon steel drums, which were welded together with a 6-inch diameter hole in the bottom that drained south to a stone leach field. The tank was connected by underground piping to Building 3072, which is located approximately 30 feet east of former Building 3073. The tank system had been inactive since 1989, before its removal on June 27, 1995. During the removal, approximately 20 cubic



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ERP Sites and Proposed Construction Projects at Duke Field

FIGURE 3-5

No warranty is made by the USAF as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. This map is a "living document," in that it is intended to change as new data become available and are incorporated into the GIS database.

yards of soil were excavated from the tank pit to remove excessively contaminated soils based on readings from an organic vapor analyzer.

A Petroleum Product Contamination Report Form was filed with the FDEP on July 5, 1994 (USAF 2006a).

Between July and September 1994, additional soil was excavated from the tank pit area to approximately 20 ft bgs. Approximately 250 cubic yards of soil were treated as excessively contaminated and the rest was returned to the excavation pit, the remainder of which was backfilled with clean soil from an offsite location. On March 10, 1995, the remaining stockpiled soil was removed from the site for thermal treatment and disposal (USAF 2006a).

Ground water remediation is still ongoing at ST-69. A pilot study was conducted from September 2002 to February 2004. The results of this study recommended aquifer air sparge and soil vapor extraction methods for treating groundwater contamination (USAF 2006a). Detectable contaminants still present in the groundwater include tetrachloroethene, tichloroethene, 1,2-dichlorethane, 1,1-dichlorethene, benzene, toluene, and ethylbenzene as well as xylenes, chromium, and lead (USAF 2006a).

3.9.2.2 Asbestos

Asbestos is a mineral fiber that was historically added to products to strengthen them and provide heat insulation and fire resistance. Breathing high levels of asbestos has been associated with some types of cancer. Many building products contained asbestos prior to the 1970s.

AFI 32-1052, *Facility Asbestos Management*, provides direction for the management of asbestos-containing material (ACM) on USAF installations. AFI 32-1052 outlines requirements for an asbestos management plan and an asbestos operating plan. The objective of the asbestos management plan is to document the status and condition of ACM within an installation. The asbestos operating plan provides direction for conducting asbestos-related work within the installation.

Past surveys of buildings on Duke Field have indicated the presence of asbestos in a number of buildings. Asbestos has already been removed from some of these buildings. Building 3025, included in the Proposed Action, was found to have ACM in the 1st Floor Boiler Room as well as the 1st Floor Men's Bathroom Hallway. No data exists to confirm that asbestos abatement has occurred in this building (USAF 2004).

3.9.2.3 Radon

Radon is a colorless, odorless radioactive gas that results from the natural decay of uranium. Radon is the leading cause of lung cancer among non-smokers (Florida Department of Health 2012a). The average indoor radon level of Okaloosa County, Florida, as determined by radon test results from Air Check, Inc. (2012), is 0.5 picocuries of radon per liter of air (pCi/L). This is over two times less than the national average 1.3 pCi/L. Although radon-resistant construction techniques can be used to prevent radon entry into buildings, these techniques are unnecessary over the vast majority of the county. Furthermore, in the small area where preventative measures are recommended, the Florida Department of Health only recommends passive radon controls (Florida Department of Health 2012b).

3.9.3 Approach to Impact Analysis

Numerous local, state, and Federal laws regulate the storage, handling, disposal, and transportation of hazardous materials and wastes; the primary purpose of these laws is to protect public health and the environment. The severity of potential impacts associated with hazardous substances is based on their toxicity, ignitability, and corrosivity. Impacts associated with hazardous materials and wastes would be considered major if the storage, use, transportation, or disposal of hazardous substances substantially increases the human health risk or environmental exposure. Impacts to identified ERP sites would be considered significant if the Proposed Action disturbed or created contaminated sites resulting in adverse effects to human health or the environment.

3.9.4 Impacts

3.9.4.1 Proposed Action

Hazardous Materials and Waste

Upon implementation of the Proposed Action, a temporary increase in the storage of hazardous materials and waste throughout construction/modification of the proposed facilities would occur. However, the increase in construction-related hazardous materials and wastes would be temporary and would not comprise a significant impact or exceed the installation's permitted allowance. Further, the Environmental Manager at Duke Field would be consulted prior to any increase in hazardous materials and/or waste.

Overall, the proposed construction-related activity is designed to consolidate like uses and improve the operational efficiency at Duke Field; the ease of storage and organization of materials and wastes would likely be improved under the Proposed Action. Hazardous waste would be managed under the current Hazardous Waste Management Plan, in accordance with all Federal, state, and local regulations, and disposed of off-site at a permitted treatment, storage, and disposal facility by an approved contractor through the Defense Reutilization and Marketing Office. Consequently, any long-term changes to hazardous materials and waste management under the Proposed Action would be negligible.

Environmental Restoration Program

The proposed development envelope for the AvFID Squad Ops Facility is in the immediate vicinity of an active ERP site, ST-69 (refer to Figure 3-5). This site requires monitoring and remedial action to address contamination from petroleum-related chemicals contaminating groundwater in the area, as described in Section 3.9, *Hazardous Materials and Wastes*. Ground-disturbing construction activities would have the greatest potential to affect the ERP site. However, under the Proposed Action the AvFID Squad Ops Facility would be constructed in such a way that the most favorable configuration would be achieved while also avoiding any and all require setbacks from the ERP site.

To reduce worker exposure potential, a Site-Specific Health and Safety Plan would be implemented. The Health and Safety Plan would be designed to evaluate each of the chemicals present in the work area and the potential exposure scenarios/paths. Based on this evaluation, the Health and Safety Plan identifies levels of personal protection through personal protective equipment (PPE), engineering mechanisms or worker practices. The Health and Safety Plan typically requires monitoring of chemicals if available information indicates the chemicals may be present. The ERP documentation would be reviewed to identify the need for chemical monitoring. Even if monitoring is not implemented as part of the initial project, the Health and Safety Plan mandates reassessment of the safeguards (i.e., PPE, engineered mechanisms) if changes at the site suspected to be related to hazardous substances occur. This may involve the complete cessation of work and notification of the 919 SOW Environmental Manager.

As a result of these precautions, no impacts to any ERP sites at Duke Field, including ST-69, would be expected to occur under the Proposed Action.

Asbestos

ACM has been identified and still remains in Building 3025, a facility that is proposed for demolition under the Proposed Action. All potential ACM would be handled and disposed of according to the installation *Asbestos Management Plan* and all applicable regulations during demolition activities. Therefore, impacts associated with asbestos would be less than significant under the implementation of the Proposed Action.

3.9.4.2 No-Action Alternative

Under the No-Action Alternative, existing conditions with respect to hazardous materials and wastes would remain unchanged from the conditions described in Section 3.9, *Hazardous Materials and Wastes*. Therefore, no impacts, adverse or otherwise, would be expected to occur.

3.10 TRANSPORTATION AND CIRCULATION

3.10.1 Definition of Resource

Transportation and circulation refers to the movement of vehicles throughout a road and highway network. *Primary* roads include major interstates and other principal arterials designed to move traffic but not necessarily to provide access to all adjacent areas. *Secondary* roads include rural routes and major surface streets that provide access to residential and commercial areas, hospitals, and schools. The capacity of transportation networks and quality of circulation may be described in *annual average daily traffic* (AADT) volumes or *level of service*.

3.10.2 Existing Conditions

The ROI for transportation and circulation includes Duke Field's circulation network as well as the surrounding roads that connect Duke Field with the rest of Eglin AFB.

3.10.2.1 Regional and Local Circulation

According to the Okaloosa-Walton Long Range Transportation Plan (Okaloosa-Walton Transportation Planning Organization 2007), there are a number of deficient highway segments within the boundaries of Eglin AFB. However, the majority of these segments occur near residential areas and along the beach front. In 2010, all roads in the vicinity of Eglin AFB, except for the beach front Highway 98, had AADT volumes of less than 36,000. Florida State Highway 85, which runs to the east of Duke Field, providing the main access to the airfield, had an AADT volume of 31,000, between Interstate 10 and the junction with State Route 123 (Florida Department of Traffic 2010).

3.10.2.2 Duke Field

The existing vehicular network consists primarily of two-lane asphalt roads serving the existing developed areas of Duke Field (USAF 2011b). The road network consists of a loose grid system parallel to the flight line. Additionally, an unpaved service road runs along the cantonment perimeter. McWhorter Street is the main access route from Florida State Highway 85. The southwest-northeast

orientation of McWhorter Street and the northwest-southeast orientation of Audette Street interrupt the grid system that predominately aligns with the cardinal directions (USAF 2011b).

Parking at Duke Field is scattered throughout the cantonment and often violates Anti-Terrorism/Force Protection (AT/FP) regulations (USAF 2011b). Parking shortages occur on reserve weekends as there are no overflow parking lots. In addition, several parking lots lack adequate separation from roads, creating traffic hazards by forcing drivers to back out of parking spaces onto primary and secondary roads (USAF 2011b).

The pedestrian circulation network on Duke Field is very sparse and fragmented. There are few connections between facilities and no formal pedestrian networks connecting common facilities or uses. The few existing sidewalks at Duke Field mainly serve to connect parking lots to their associated buildings (USAF 2011b).

3.10.3 Approach to Impact Analysis

Potential impacts to transportation and circulation are assessed with respect to anticipated disruption or improvement of current transportation patterns and systems; deterioration or improvement of existing levels of service; and changes in existing levels of transportation safety. Beneficial or adverse impacts may arise from physical changes to circulation (e.g., closing, rerouting, or creating roads), construction activity, introduction of construction-related traffic on local roads, or changes in daily or peak-hour traffic volumes created by installation workforce and population changes. Adverse impacts on roadway capacities would be considered significant if roads with no history of exceeding capacity were forced to operate at or above their full design capacity.

3.10.4 Impacts

3.10.4.1 Proposed Action

Construction-Related Impacts

Implementation of the Proposed Action would require delivery of construction materials to and removal of demolition-related debris from project sites.

However, construction traffic would comprise only a small portion of the total existing traffic volume in the region (see Section 3.10, *Transportation and Circulation*), and many of the vehicles would be driven to and kept on-site for the duration of construction, resulting in very few actual increased trips. Furthermore, any increases in traffic volumes associated with construction activity would be temporary. Upon completion of construction, no significant long-term impacts to off-installation transportation systems would result.

Projects under the Proposed Action would result in minor impacts to traffic circulation at Duke Field due to temporary closures and relocations associated with construction-related activities. However, these short-term temporary impacts would not have a significant impact on the airfield's transportation network.

Long-Term Impacts

The Proposed Action would result in an increase of 286 military personnel at Duke Field, 57 of which are not associated with the 6th Special Operations Command (6 SOS) or currently stationed at the Eglin AFB complex (see Section 2.2.1, *AvFID Beddown and Operations*). The construction of the AvFID Squad Ops Facility would include a parking area with approximately 335 spaces, which meets the recommended 0.75 parking ratio. It would also include a roadway extension and realignment, which would both facilitate transportation needs around the facility and provide avenues for future development of the surrounding vicinity.

In general, implementation of the Proposed Action would result in less than significant impacts to transportation and circulation at Duke Field.

3.10.4.2 No-Action Alternative

Under the No-Action Alternative, existing conditions with respect to transportation would remain unchanged from the conditions described in Section 3.10, *Transportation and Circulation*. No impacts, adverse or otherwise, would be expected to occur under this alternative.

3.11 VISUAL RESOURCES

3.11.1 Definition of Resource

Visual resources are defined as the natural and manufactured features that comprise the aesthetic qualities of an area. These features form the overall impressions that an observer receives of an area or its landscape character. Landforms, water surfaces, vegetation, and manufactured features are considered characteristic of an area if they are inherent to the structure and function of a landscape.

3.11.2 Existing Conditions

The ROI for visual resources is limited to Duke Field and the surrounding open space.

3.11.2.1 Regional Visual Character

Topography surrounding Eglin AFB is generally level to gently rolling and is dominated by military uses as well as open space. Suburban development surrounds the western half of Choctawhatchee Bay located just south of the Eglin Main Base, and the City of Valparaiso is located adjacent to the northwest of the Main Base, also along the edge of the bay. Generally, the edges of Eglin AFB are developed while the interior is composed of open space and various airfields with supporting infrastructure. There are no wild and scenic rivers, or designated scenic roads or vistas located on Eglin AFB. However, the Florida National Scenic Trail traverses Eglin AFB to the north of Duke Field, and meanders from the Gulf Island National Seashore in the west to Big Cypress National Preserve to the east. However, the military influences on the trail (i.e., noise resulting from aircraft, munitions, and explosives) are recognized by the public as primary components of the trail.

3.11.2.2 Duke Field

The gently rolling topography surrounding Duke Field AFB is dominated by longleaf pine forest. In addition, Duke Field is surrounded by cleared areas of land as well as a sparse road network, which includes Florida State Highway 85

located to the west of the airfield. Further to the north of Duke Field is the Shoal River, which winds through a mixed forest of maple, birch, oak, gum, and cypress. However, the Shoal River is not a designated National Scenic and Wild River. Furthermore, there are no designated scenic roads or vistas.

3.11.3 Approach to Impact Analysis

Determination of the severity of impacts to visual resources is based on the level of visual sensitivity in the area. Visual sensitivity is defined as the degree of public interest in a visual resource and concern over adverse changes in the quality of that resource. In general, an impact to a visual resource is considered to be significant if implementation of the Proposed Action would result in substantial alteration to an existing sensitive visual setting.

3.11.4 Impacts

3.11.4.1 Proposed Action

Short-Term Impacts

Short-term impacts to visual resources at Duke Field would occur during construction-related activities associated with the Proposed Action. The presence of heavy machinery and construction equipment may create a short-term visual impact. However, the visual environment of Duke Field does not constitute a unique or sensitive view shed and construction-related impacts would be temporary. Therefore, short-term adverse impacts to visual resources at Duke Field would be less than significant.

Long-Term Impacts

Long-term impacts to visual resources resulting from the Proposed Action would be primarily due to the presence of the AvFID Squad Ops Facility, which would be located in an area that is currently open space. However, facilities construction associated with the Proposed Action would be visually consistent with existing and adjacent structures at Duke Field. Additionally, available off-site views of the facilities associated with Duke Field would remain limited. The visual environment Duke Field does not constitute a unique or sensitive view

shed. As a result, impacts to regional visual resources associated with the Proposed Action would be less than significant.

3.11.4.2 No-Action Alternative

No changes to existing visual resources, as described in Section 3.11, *Visual Resources*, would occur under implementation of the No-Action Alternative. Therefore, selection of this alternative would have no foreseeable impacts to visual resources in the vicinity of Duke Field.

3.12 SAFETY

3.12.1 Definition of Resource

The primary concern with regard to military training flights is the potential for aircraft mishaps (i.e., crashes), which may be caused by mid-air collisions with other aircraft or objects, weather difficulties, or bird-aircraft strikes. The USAF has developed criteria for RPZs at the ends of runways based upon the analysis of previously-occurring aircraft mishaps at USAF installations. RPZs ensure that land use in areas extending outward from the ends of runways is compatible with aircraft operations.

AFI 91-202, *The USAF Mishap Prevention Program* provides guidance for the development of a BASH plan to address and reduce potential bird/wildlife strikes to aircraft. Because migratory bird species are considered of special ecological value EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds,* was introduced in 2001 to ensure that Federal agencies focus attention on the environmental effects to migratory bird species and, where feasible, implement policies and programs, which support the conservation and protection of migratory birds.

Siting requirements for explosive materials storage (e.g., munitions) and handling facilities are based on safety and security criteria. Air Force Manual (AFM) 91-201, *Explosives Safety Standards*, requires that defined distances be maintained between these and a variety of other types of facilities. These explosive safety quantity-distance (ESQD) arcs are determined by the type and quantity of explosive materials to be stored; each explosive material storage or handling facility has ESQD arcs extending outward from its sides and corners for a prescribed distance. Within ESQD arcs, development is either restricted or altogether prohibited in order to maintain safety of personnel and minimize the potential for damage to other facilities in the event of an accident. ESQD arcs for multiple facilities at a single site may overlap, leaving a series of arcs as edges of the safety zone. Explosive materials storage and build-up facilities must be located in areas where security can be assured.

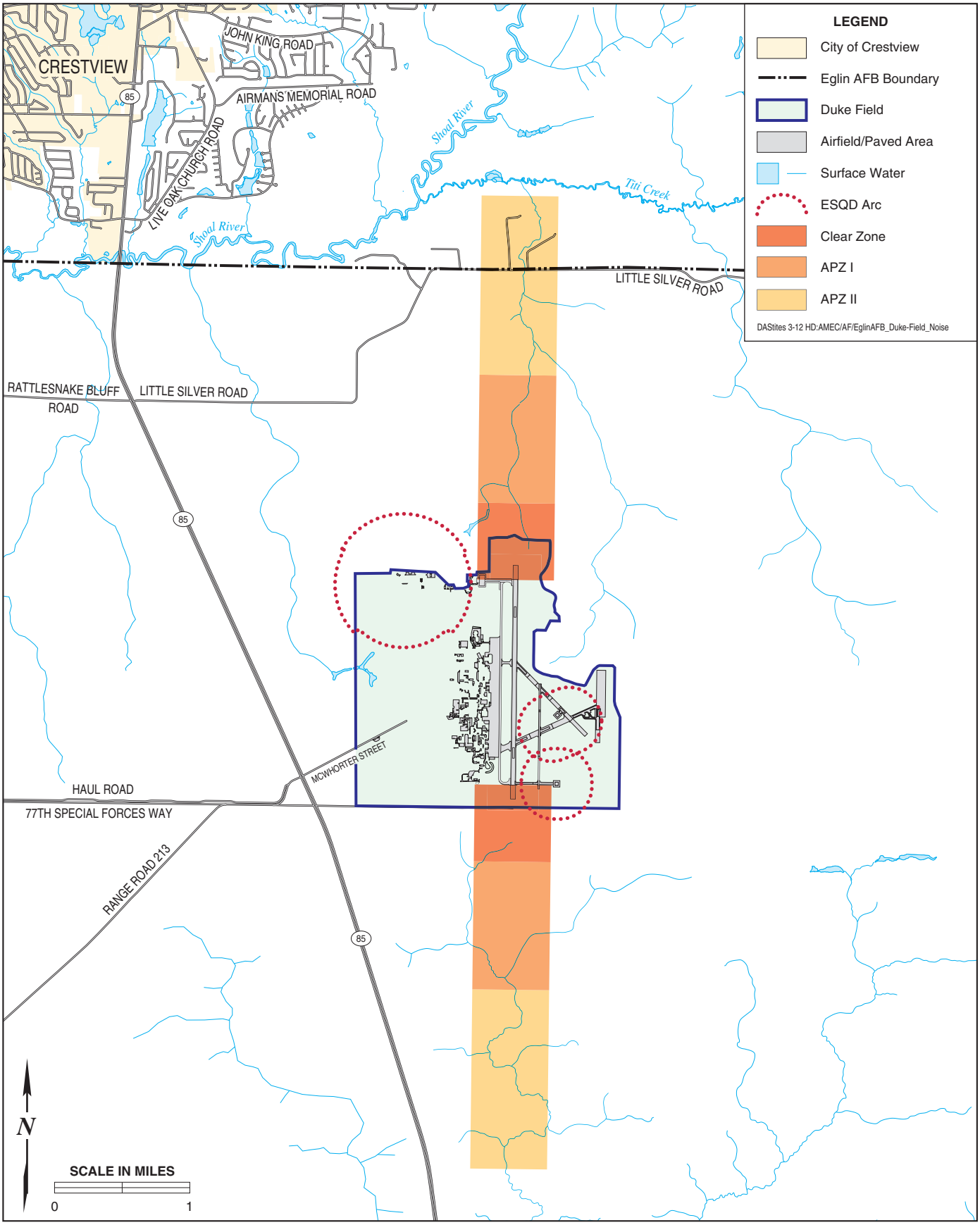
The DoD has developed AT/FP standards, which are designed to reduce the likelihood of mass casualties from potential terrorist attacks. Requirements include mandated setbacks of parking areas from buildings, increased security measures such as barricades at military facility entrances and exits, and AT/FP-compliant perimeter fences. Requirements also include mandates regarding emergency notification systems and procedures. The *United States Air Force Installation Force Protection Guide* contains information on installation planning, engineering design, and construction techniques that can preclude or minimize the effects of terrorist attacks upon existing and future facilities. It addresses the comprehensive planning process, facility site design, and building systems design. Additional criteria are available in *Unified Facilities Criteria* (UFC) 4-010-01, *DoD Minimum Antiterrorism Standards for Buildings*.

The proposed siting envelop is not located within any CZs, or APZs; however, an unexploded ordinance (UXO) contamination area occurs to the north-northeast and an ESQD arc associated with munitions storage occurs to the north-northwest (Figure 3-6). Because all activities under the Proposed Action are located well-outside of these areas, these concerns are not discussed any further.

3.12.2 Existing Conditions

3.12.2.1 Aircraft Mishaps

Five mishap classifications have been defined by the USAF. Class A mishaps result in a fatality or permanent total disability; total cost in excess of $2 million for injury, occupational illness, and property damage; or destruction or damage beyond repair to military aircraft. Class B mishaps result in a permanent partial disability; total cost in excess of $500,000 but less than $2 million for injury, occupational illness, and property damage; or hospitalization of five or more personnel. Class C mishaps result in total damages between $50,000 and $500,000, and Class D mishaps result in total damages between $2,000 and $50,000. The fifth mishap category, Class E, includes occurrences that do not meet reportable mishap classification criteria, but are deemed important to investigate and/or report for mishap prevention.



EA

Safety Protection Zones Associated with Duke Field

FIGURE 3-6

No warranty is made by the USAF as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. This map is a "living document," in that it is intended to change as new data become available and are incorporated into the GIS database.

According to the most recent available data, between 2005 and 2012, the 919 SOW experienced no Class A mishaps; however, a total of 8 Class B, Class C, and Class D mishaps were reported at the installation, which represents approximately 5 percent of total mishaps for that time period. The majority of mishaps between 2005 and 2012 were Class E (USAF 2012b), as shown in Table 3-8.

Table 3-8. Aircraft Mishaps at Duke Field, Eglin AFB

Classification	Description	Incidents	Percentage
Class A	Total cost in excess of $1 million	0	0%
Class B	Total cost: $200,000 to $1 million	2	1%
Class C	Total cost: $20,000 to $200,000	5	3%
Class D	Total cost: $2,000 to $20,000	1	1%
Class E	Other incidents deemed worthy of investigation	177	95%
Total		**185**	**100%**

Note: Approximately 70 percent of aircraft mishaps were a result of BASH or weather related incidents.
Source: USAF 2012b.

3.12.2.2 Anti-Terrorism/Force Protection

Duke Field is bound by a secure perimeter fence and access on-base from Florida State Highway 85 is provided through only one security-controlled entrance gate on McWhorter Street. Parking at Duke Field is scattered throughout the cantonment and often violates AT/FP regulations (USAF 2011b). UFC 4-010-01 *DoD Minimum Antiterrorism Standards for Buildings* include the following minimum setbacks:

- 82-foot (25-meter) standoff between unsecured parking and inhabited structures
- 33-foot (10-meter) object-free area with limited development around structures

3.12.2.3 Occupational Health

AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Protection, and Health (AFOSH) Program,* establishes the Air Force guidelines, policy, and procedures to protect Air Force resources and military and civilian personnel

from occupational deaths, injuries, or illnesses. AFI 91-301 implements the Department of Labor, Occupational Safety and Health Administration (OSHA) standards and further prescribed Air Force occupational and environmental safety, fire protection, and health requirements. Both OSHA and AFI 91-301 standards apply to nonmilitary-unique workplaces, operations, equipment, and systems. Some guidance contained in the AFI 91-301 standards has been tailored to apply to a specific Air Force operation; however, the safety principles involved are generally universal. OSHA standards do not apply to military-unique workplaces (e.g., military weapons, aircraft, marine vessels, missiles, ordnance, etc.), operations, equipment, and systems. However, the OSHA standards apply insofar as is possible, practicable, and consistent with the military requirements.

All contractors performing construction activities are responsible for following ground safety and regulations and are required to implement construction activities in a manner that does not pose any risk to workers or personnel. Industrial hygiene programs address exposure to hazardous materials, use of personal protective equipment, and use and availability of Material Safety Data Sheets. Industrial hygiene is the responsibility of contractors, as applicable. Contractor responsibilities are to review potentially hazardous workplaces; to monitor exposure to workplace chemicals (e.g., asbestos, lead, hazardous material), physical (e.g., noise propagation), and biological (e.g., infectious waste) agents; to recommend and evaluate controls (e.g., ventilation, respirators) to ensure personnel are properly protected or unexposed; and to ensure a medical surveillance program is in place to perform occupational health physicals for those workers engaged in hazardous waste work or subject to any accidental chemical exposures.

Building 3025, which would be demolished under the Proposed Action, is known to have contained asbestos (see Section 3.9, *Hazardous Materials and Wastes*). No data exists to suggest that this ACM has been removed from the building.

3.12.3 Approach to Impact Analysis

If implementation of the Proposed Action would substantially increase risks associated with aircraft mishap potential or flight safety relevant to the public or the environment, it would represent a major impact. For example, if an action

involved an increase in aircraft operations such that mishap potential would increase substantially, air safety would be compromised.

Further, if implementation of the Proposed Action would result in incompatible land use with regard to safety criteria such as APZs, ESQD arcs, or CZs impacts would be considered to be significant.

3.12.4 Impacts

3.12.4.1 Proposed Action

Mishap Potential and Bird/Wildlife Aircraft Strike Hazard

Implementation of the Proposed Action would not result in a significant change to the current number of annual aircraft operating hours or sorties. Aircraft operations would continue to adhere to all established flight safety guidelines and protocol. Further, conflicts with the unit's BASH plan are not anticipated under the implementation of the AvFID beddown. Consequently, with regard to aircraft mishaps and bird-aircraft strikes, impacts to safety as a result of the Proposed Action would be less than significant.

Runway Protection Zones

Facilities present at Duke Field and in its immediate vicinity are compatible with land use with regard to established RPZs. The Proposed Action would not result in a change in shape or a shift in the location of the established RPZs. Additionally, no incompatible land use would be established within the RPZs. Therefore, no conflict with regard to runway protection zones would result from implementation of the Proposed Action.

Explosives Safety

Munitions are stored at Duke Field in secured facilities and all explosives safety criteria are met for storage and handling. Further, no incompatible land use activities are proposed to be established within ESQD arcs under the Proposed Action. Consequently, no impacts with regard to explosives safety are expected to occur as a result of the AvFID beddown.

Anti-Terrorism/Force Protection

Implementation of the Proposed Action would include multiple construction-related projects, which would occur within the Duke Field property boundaries. All proposed construction would comply with AT/FP standards related to setbacks and facilities construction. As a result, no violations of AT/FP standards under the Proposed Action would occur at Duke Field.

3.12.4.2 No-Action Alternative

If the No-Action Alternative were selected, the proposed beddown would not be implemented and the mishap potential and BASH, as described in Section 3.12, *Safety* would remain the same.

3.13 INDIRECT AND CUMULATIVE IMPACTS

This section of the EA addresses the potential cumulative impacts associated with the implementation of the Proposed Action other projects that are occurring concurrently at Eglin AFB. CEQ defines cumulative impacts as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions" (40 CFR 1508.7). This section continues, "Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." The identification of cumulative impacts considers whether significant impacts exists that were not identified when the Proposed Action in this EA was considered alone.

3.13.1 Past, Present and Reasonably Foreseeable Actions

Past, present, and reasonably foreseeable future projects occurring concurrently elsewhere on Eglin AFB include, but are not limited to, projects identified and described below.

BRAC Action: An Environmental Impact Statement (EIS) has been completed for the 2005 Base Realignment and Closure (BRAC) decision to establish the Joint Strike Fighter (JSF) Integrated Training Center at Eglin AFB for joint Air Force, Navy, and Marine Corps JSF training organizations to teach aviators and maintenance technicians how to properly operate and maintain this new weapons system (USAF 2008a). As part of the plan, 200 instructors are relocating to Eglin AFB. The 7th Special Forces Group (7 SFG) has relocated from Fort Bragg, North Carolina to Eglin AFB. Most of the aspects of the 7 SFG beddown are complete, and others, like training, are still being implemented. The 7 SFG cantonment and training areas are not being located at Duke Field. However, a Supplemental EIS (SEIS) for JSF beddown with different alternatives with various runway configurations is currently being prepared to analyze operations and impacts associated with constructing new runways or reconfiguring existing runways to accommodate the JSF. Five of the eight alternatives that are being studied in the SEIS would involve a future beddown of all JSF aircraft at Duke Field. Potential impacts from these programs due to changing mission and

additional personnel may include noise, air quality, munitions, storage concerns, transportation, and utilities concerns, among others.

Eglin AFB Hurlburt Field Military Housing Privatization Initiative: This project would include the demolition of up to 1,404 housing units and the construction of up to 1,477 new units. The USAF would convey all existing military family housing units to a private developer. Demolition and construction would occur at the Main Base and at Hurlburt Field; no activities would be conducted at Duke Field. Demolition would also occur at Camp Rudder, in the northwestern part of the installation. Under the Military Housing Privatization Initiative, 150 units at Poquito Bayou would also be demolished.

Florida Department of Transportation: The Florida Department of Transportation (FDOT) is constructing an overpass at the SR 85 at SR 123 intersection. The project has several phases including one that would also widen SR 85 to six lanes to Crestview, widen SR 123 by an additional two lanes and other long term improvements to improve road service levels and commuter safety. Proposed improvements along US 98 include widening, an overpass at Hurlburt and a proposal to extend the mid bay bridge toll road to tie in to US 87. US 331 to the east and SR 87 to the west are both included in long range plans for widening and other improvements.

DoD Energy Projects: DoD has been tasked with reducing energy needs and creating new capacity. Potential technologies at Eglin AFB include BioMass energy production utilizing local wood sources as the primary renewable energy of choice. As of FY 2011, the primary sites for this 60 acre facility are located near Fort Walton Beach or Crestview. No firm decisions have been made as to the nature or location of this energy project as of this date

3.13.2 Cumulative Impacts

As five of the eight alternatives that are being studied in the SEIS would involve a future beddown of all JSF aircraft at Duke Field, potential cumulative impacts may result. Potential cumulative impacts from additional personnel and the beddown of JSF aircraft at Duke Field may include impacts to noise, air quality, munitions, storage, transportation, and utilities, among others.

Noise impacts in this EA have been analyzed to account for particular F-35 aircraft activities at Duke Field including touch-and-go training. However, should the JSF beddown occur at Duke Field, the noise contours presented in this EA would expand in size, as detailed in the SEIS. Though the Proposed Action would not significant contribute to cumulative impacts to noise, the beddown of the JSF aircraft may result in potential land use conflicts with the AvFID Squad Ops facility. However, should the JSF beddown occur the AvFID Squad Ops facility would be located within the project envelope in such a way that it is outside of the 80 DNL contour. Furthermore, as the Proposed Action represents a minor decrease in flight operations at Duke Field, the beddown of AvFID aircraft would not significantly contribute to cumulative impacts to air quality or airspace management. Additionally, as only 57 new personnel would be added as a result of the AvFID beddown, the Proposed Action would also not significantly contribute to cumulative impacts to transportation at Duke Field. Further, updates to the transportation system as a result of the Proposed Action may represent a potential beneficial impact that serves to reduce the overall potential cumulative impacts associated with JSF beddown at Duke Field.

3.14 OTHER NEPA CONSIDERATIONS

This section provides a discussion of other pertinent NEPA considerations associated with the Proposed Action.

3.14.1 Unavoidable Adverse Impacts

There are no significant unavoidable adverse impacts associated with the Proposed Action or No Action Alternative.

3.14.2 Relationship between Short-Term Uses and Enhancement of Long-Term Productivity

Implementation of the Proposed Action or No Action Alternative would not have any effect on long-term productivity at Duke Field or Eglin AFB. The Proposed Action is not anticipated to have any significant impacts to natural resources and would not conflict or interfere with the established objectives of the INRMP to ensure that Eglin AFB continues to support present and future mission requirements while preserving, improving, and enhancing ecosystem integrity.

3.14.3 Irreversible and Irretrievable Commitment of Resources

The Proposed Action would irreversibly commit fuels, manpower, materials, and costs required to complete construction activities associated with the proposed AvFID beddown. However, this commitment of resources is expected to be negligible on a base-wide and regional scale. The No Action Alternative would not commit any additional resources.

SECTION 4
MANAGEMENT REQUIREMENTS

The following is a list of regulations, plans, permits, and management actions associated with the implementation of the Proposed Action. The environmental impact analysis process for this EA identified the need for these requirements. These requirements are, therefore, to be considered as part of the Proposed Action and would be implemented through its initiation. The Proponent is responsible for adherence to and coordination with the listed Points of Contact (POCs) to complete the plans, permits, and management actions outlined in this section.

4.1 REGULATIONS, PLANS, AND PERMITS

- Coastal Zone Management Act (CZMA) Consistency Determination (refer to Appendix D)
- Erosion, Sedimentation, and Pollution Control Plan
- Florida Department of Environmental Protection (FDEP) Environmental Resources Permit (http://www.dep.state.fl.us/water/wetlands/erp/forms.htm)
- FDEP National Pollutant Discharge Elimination System (NPDES) Permit (http://www.dep.state.fl.us/water/stormwater/npdes/permits_forms.htm)

4.2 MANAGEMENT ACTIONS

Under the Proposed Action the Proponent would be responsible for implementation of the following management actions.

4.2.1 Air Quality

- Construction and operational activities must comply with all the applicable requirements in the Title V permit. If an increase in emissions is anticipated during the Proposed Action, Eglin AFB may need to submit an application to the FDEP, Division of Air Resource Management, New Source Review Section.

- Construction/access roads would be routinely water to reduce fugitive dust emissions during the construction phases of the Proposed Action.

- All construction equipment would be maintained in proper working condition according to the manufacturer's specifications; vehicles would be maintained and inspected on a weekly basis in order to ensure good operating conditions.

- During construction activities equipment would be shut down when not in use and would not be permitted to idle for a period greater than 5 minutes, thereby minimizing exhaust emissions.

4.2.2 Biological Resources

- Prior to the initiation of any construction activities or disturbance within the proposed project area a qualified biologist (i.e., professional biologist with education and training in wildlife biology or ecology) would perform a gopher tortoise survey and a red-cockaded woodpecker survey.

- A qualified biologist would monitor construction operations to ensure adherence with all BMPs and to provide advice to the construction contractor as needed during grading activities associated with the proposed AvFID Squad Ops facility.

- If an individual of a federally or state protected species is found in the proposed project area (e.g. Florida black bear, gopher tortoise, or indigo snake) work would cease in that area until either a qualified biologist can safely remove the individual in accordance with accepted species handling protocols, or it moves away on its own.

- If construction or maintenance activities continue at night, all lights would be shielded to direct light only onto the area required for worker safety and productivity. The minimum wattage needed would be used and the number of lights would be minimized in order to reduce the impact on wildlife populations.

- The Proponent would be responsible for funding all wildlife related efforts, including any surveys, habitat protection, monitoring, or reporting required as a result of the Proposed Action.

- Coordination with Eglin Natural Resources Section would be required prior to any ground disturbing activities (POC: Kathy Gault, 96 CEG/CEVSN, 883-1145).

- Coordinate with Eglin Natural Resources Forestry Section would be required prior to any tree removal as trees in the proposed project area may be merchantable.

- Prior to the implementation of the Proposed Action, the CZMA determination would be reviewed. The Proposed Action would comply with any permit requirements as identified by the state. In correspondence dated 28 June 2012, FDEP provided their determination that the Proposed Action would be consistent with the Florida Coastal Management Program (please refer to Appendix B for FDEP's letter of concurrence and to Appendix D for the CZMA determination associated with the Proposed Action).

4.2.3 Water Resources

- A NPDES and Rule 62-621, Florida Administrative Code (FAC) Stormwater Permit is required for the Proposed Action as it includes construction projects greater than one acre in size.

- The Proposed Action must comply with management requirements included in Chapter 62-346 FAC.

- Prior to implementation of the Proposed Action contact would be made with the Stormwater Permit Engineer of the Northwest District Office for the FDEP as well as with personnel in the NPDES section of the FDEP. .

- In accordance with the Energy and Independence and Security Act Section 438 (requiring Federal facility projects over 5,000 square feet to maintain or restore the predevelopment hydrology of the property), low-impact

development techniques would be incorporated into the proposed construction projects.

- Construction activities must be performed in compliance with 62-550 FAC, 62-55 FAC, 62-604 FAC, American Water Works Association (AWWA) Standards, Recommended Standards for Wastewater Facilities (commonly referred to as Ten State Standards), and Water Management District laws and permits.

- A soils management plan as well as a Stormwater Pollution Prevention Plan (SWPPP) would be developed for the Proposed Action.

- Upon completion of the Proposed Action, all disturbed areas not supporting new facilities or pavements would be revegetated.

- The Proponent would also ensure that the design engineer coordinates with the 96 CEG/CEVC (882-7760) for final stormwater design and permitting.

- Furthermore, the Proponent would ensure that the construction contractor implements the following stormwater and erosion control BMPs:

    a) Silt fences and hay bales that would be required during construction to avoid soil runoff;

    b) In permits and site plan designs, site-specific management requirements would be included for erosion and sediment control;

    c) For construction equipment (e.g., cement mixers), a "staging area" would be designated to contain any chemicals, solvents, or toxic materials in order to prevent them from entering surface waters;

    d) Construction site entrances would be stabilized using stone and geotextile (filter fabric) that is approved by the Florida Department of Transportation; and

    e) Inspection of BMPs would take place on a weekly basis and after rain events.

4.2.4 Noise

- Construction equipment would possess properly working mufflers and would be maintained properly to reduce backfires.

- All generators would be placed in baffle boxes (a sound-resistant box that is placed over or around a generator), have an attached muffler, or use other noise-abatement methods in accordance with industry standards.

4.2.5 Cultural Resources

- Consultation with the State Historic Preservation Officer (SHPO) would be required to identify, evaluate, and document buildings or structures 50 years of age or older on or adjacent to the land impacted at Duke Field. SHPO would determine if historic properties that are listed or eligible for listing in the National Register of Historic Places would be adversely affected as a result of the Proposed Action.

- Eglin AFB must consult with the SHPO to identify, evaluate, and provide complete documentation on all archaeological sites within the subject property.

- Should archeological material be inadvertently discovered during construction activities, all actions in the immediate vicinity would cease and efforts would be taken to protect the archeological find from further impact.

4.2.6 Hazardous Materials and Wastes

- FDEP would be notified, as outlined in Chapter 62-257 FAC Rule 62-257 Asbestos Program, of renovation and demolition activities that involve the wrecking or taking out of any load-supporting structural member and/or removal of a defined amount of asbestos containing material.

- Additionally, the refueling of machinery would be completed following accepted guidelines, and all vehicles would have drip pans beneath them during storage to contain minor spills and drips.

- No refueling or storage of heavy equipment would take place within 100 feet of any drainage.

4.2.7 Safety

- Should any residual contamination from the nearby ERP site be inadvertently uncovered during the course of grading or construction, all actions in the immediate vicinity would cease and construction crews would immediately contact the 96 CES/CED.

SECTION 5
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This report was prepared for, and under the direction of, the U.S. Air Force by AMEC Environment & Infrastructure, Inc. (AMEC). Members of the professional staff are listed below:

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SECTION 6
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APPENDIX A

SUMMARY OF LEGISLATION PERTAINING TO THE PREPARATION OF THIS ENVIRONMENTAL ASSESSMENT

APPENDIX A
SUMMARY OF LEGISLATION PERTAINING TO THE PREPARATION OF THIS ENVIRONMENTAL ASSESSMENT

NATIONAL ENVIRONMENTAL POLICY ACT

In accordance with NEPA, Federal agencies are required to integrate environmental values into their decision-making process by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. The intent of NEPA is to protect, restore, or enhance the environment through well-informed Federal decisions. The CEQ was established under NEPA to implement and oversee Federal policy in this process. The CEQ subsequently issued *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* (40 Code of Federal Regulations [CFR] § 1500-1508, 32 CFR part 989). These regulations specify that an EA be prepared to:

- briefly provide sufficient analysis and evidence for determining whether to prepare and Environmental Impact Statement (EIS) or a finding of no significant impact (FONSI);
- aid in an agency's compliance with NEPA when no EIS is necessary; and
- facilitate preparation of an EIS when one is necessary.

To comply with NEPA and other pertinent environmental requirements, such as the Endangered Species Act and Clean Air Act, and to assess impacts on the environment, the decision-making process includes a study of environmental issues related to the proposed property acquisition and future development at Elgin Air Force Base.

ENDANGERED SPECIES ACT (ESA)

The ESA of 1973 (16 United States Code [USC] §§ 1531–1544, as amended) established measures for the protection of plant and animal species that are federally listed as threatened and endangered, and for the conservation of habitats that are critical to the continued existence of those species. Federal agencies must evaluate the effects of their proposed actions through a set of defined procedures, which can include the preparation of a Biological

Assessment and can require formal consultation with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Act

CLEAN AIR ACT AND CONFORMITY REQUIREMENTS

The Clean Air Act (CAA) (42 USC §§ 7401–7671, as amended) provided the authority for the U.S. Environmental Protection Agency (USEPA) to establish nationwide air quality standards to protect public health and welfare. The National Ambient Air Quality Standards (NAAQS) were developed for six criteria pollutants: ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter, and lead (Pb). The Act also requires that each state prepare a State Implementation Plan (SIP) for maintaining and improving air quality and eliminating violations of the NAAQS. Under the CAA Amendments of 1990, Federal agencies are required to determine whether their undertakings are in conformance with the applicable SIP and demonstrate that their actions will not cause or contribute to a new violation of the NAAQS; increase the frequency or severity of any existing violation; or delay timely attainment of any standard, emission reduction, or milestone contained in the SIP. The USEPA has set forth regulations in 40 CFR 51, Subpart W, which require the proponent of a proposed action to perform an analysis to determine if its implementation would conform to the SIP.

WATER RESOURCES REGULATORY REQUIREMENTS

The Clean Water Act (CWA) of 1977 (33 USC §§ 1251 *et seq.*) regulates pollutant discharges that could affect aquatic life forms or human health and safety, such as those potentially released during temporary construction procedures or well development activities. Section 404 of the CWA, and Executive Order (EO) 11990, *Protection of Wetlands*, regulate development activities in or near streams or wetlands. Section 404 also regulates development in streams and wetlands and requires a permit from the U.S. Army Corps of Engineers (USACE) for dredging and filling in wetlands. EO 11988, *Floodplain Management*, requires Federal agencies to take action to reduce the risk of flood damage; minimize the impacts of floods on human safety, health, and welfare; and to restore and preserve the natural and beneficial values served by floodplains. Federal agencies are directed to consider the proximity of their actions to or within

floodplains. Additionally, the National Pollutant Discharge Elimination System (NPDES) requires that regulated federal entities must implement stormwater pollution prevention plans (SWPPPs) or stormwater management programs (both using best management practices [BMPs]) that effectively reduce or prevent the discharge of pollutants into receiving waters.

The Safe Drinking Water Act (SDWA) of 1974 intends to protect public health by regulating the nation's public drinking water supply. Most recently amended in 1996, the act requires several actions to protect drinking water and its sources, which include rivers, lakes, reservoirs, springs, and ground-water wells. The SDWA applies to every public water system in the U.S. and recognizes source water protection, operator training, funding for water system improvements, and public information as important components of safe drinking water in addition to focusing on water treatment as the means of providing safe drinking water to the public.

CULTURAL RESOURCES REGULATORY REQUIREMENTS

The National Historic Preservation Act (NHPA) of 1966 (16 USC § 470) established the National Register of Historic Places (NRHP) and the Advisory Council on Historic Preservation (ACHP) which outlined procedures for the management of cultural resources on Federal property. Cultural resources can include archaeological remains, architectural structures, and traditional cultural properties such as ancestral settlements, historic trails, and places where significant historic events occurred. The NHPA requires Federal agencies to consider potential impacts to cultural resources that are listed, nominated to, or eligible for listing on the NRHP; designated a National Historic Landmark; or valued by modern Native Americans for maintaining their traditional culture. Section 106 of NHPA requires Federal agencies to consult with the appropriate State Historic Preservation Office (SHPO) if their undertaking might affect such resources. *Protection of Historic and Cultural Properties* (36 CFR 800 [1986]) provides an explicit set of procedures for Federal agencies to meet their obligations under the NHPA, which includes inventorying of resources and consultation with SHPO.

EO 13007, *Indian Sacred Sites*, directs Federal land (any land or interests in land owned by the United States, including leasehold interests held by the United States, except Indian trust lands) managing agencies to accommodate access to, and ceremonial use of, Indian sacred sites (any specific, discrete, narrowly delineated location on Federal land that is identified by an Indian tribe [an Indian or Alaska Native tribe, band, nation, Pueblo, village, or community that the Secretary of the Interior acknowledges to exist as an Indian tribe pursuant to Public Law No. 103-454, 108 Stat. 4791, an "Indian" refers to a member of such an Indian tribe] or Indian individual determined to be an appropriately authoritative representative of an Indian religion, as sacred by virtue of its established religious significance to, or ceremonial use by, an Indian religion) provided that the tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site.

The American Indian Religious Freedom Act (AIRFA) (42 USC § 1996) established Federal policy to protect and preserve the rights of Native Americans to believe, express, and exercise their traditional religions, including providing access to sacred sites. The Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC §§ 3001–3013) requires consultation with Native American tribes prior to excavation or removal of human remains and certain objects of cultural importance.

ANTITERRORISM FORCE PROTECTION

The Department of Defense (DoD) has developed AT/FP standards that are designed to reduce the likelihood of physical damage and mass casualties from potential terrorist attacks. Unified Facilities Criteria (UFC) 4-010-01, *DoD Minimum Anti-terrorism Standards for Buildings,* outlines various planning, construction, and operational standards to address potential terrorist threats. A key element of AT/FP standards is the establishment of minimum setbacks and other security standoffs between mass gathering facilities and potentially non-secure adjacent uses (e.g., parking lots, off-installation property). AT/FP setbacks typically extend outward from the sides and corners of facilities for a prescribed distance (e.g., 45 meters); development is either limited or altogether prohibited in such setback areas. Additional AT/FP standards address other

facility design and operational considerations, including internal building layout, facility access and security, site circulation, and emergency mass notification.

SUSTAINABILITY AND GREENING

EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance,* strives to improve efficiency and environmental performance in Federal agencies by setting goals in the areas of energy efficiency, greenhouse gas emission mitigation, water conservation, waste management and recycling, green procurement, pollution prevention, and livable communities, among others. The EO specifies that every Federal organization and agency must make the reduction of greenhouse gas emissions a priority and establishes specific goal-setting, inventorying, and reporting requirements for Federal agencies. This includes an order for each agency to develop, implement, and update a Strategic Sustainability Performance Plan, which should work toward continual improvement of sustainable practices associated with Federal actions.

Sustainable green building and development practices can be recognized through sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. The U.S. Green Building Council (USGBC)'s Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is a third-party certification program and the nationally accepted benchmark for the design, construction, and operation of high-performance green buildings (USGBC 2008). LEED rating systems are based on a set number of prerequisites and credits in six major categories: (1) sustainable sites; (2) water efficiency; (3) energy and atmosphere; (4) materials and resources; (5) indoor environmental quality; and (6) innovation and design process (USGBC 2005). In the most recent LEED rating system (version 2.2), buildings can qualify for four levels of certification, in order from highest to lowest: platinum, gold, silver, and certified. Benefits of constructing LEED-certified facilities include lower operating costs and increased asset value, reduced waste sent to landfills, conservation of energy and water, healthier and safer facilities for occupants, reduction of harmful greenhouse gas emissions that incrementally contribute to global climate change, and the demonstration of an owner's commitment to environmental stewardship and social responsibility.

OTHER EXECUTIVE ORDERS

Additional regulatory legislation that potentially applies to the implementation of this proposal includes guidelines promulgated by EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, to ensure that citizens in either of these categories are not disproportionately affected. Potential health and safety impacts that could disproportionately affect children are considered under the guidelines established by EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*. EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, acts as additional protection for migratory birds.

INTERAGENCY AND INTERGOVERNMENTAL COORDINATION FOR ENVIRONMENTAL PLANNING (IICEP)

Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) is a federally mandated process for informing and coordinating with other governmental agencies regarding proposed actions. As detailed in 40 CFR § 1501.4(b), CEQ regulations require intergovernmental notifications prior to making any detailed statement of environmental impacts. Through the IICEP process, the U.S. Air Force will notify relevant Federal, state, and local agencies and allow them sufficient time to make known their environmental concerns specific to a proposed action. Comments and concerns submitted by these agencies during the IICEP process are subsequently incorporated into the analysis of potential environmental impacts conducted as part of the EA.

APPENDIX B

PUBLIC NOTICE AND AGENCY COORDINATION

NORTHWEST FLORIDA
Daily
News

Published Daily
Fort Walton Beach, Florida
Distributed in Okaloosa, Santa Rosa & Walton Counties

State of Florida, County of Okaloosa

Before the undersigned authorized personally appeared Maureen Wilkes,

who on oath says that (s)he is Legal Advertising Clerk

of the Northwest Florida Daily News,

a daily newspaper published at Fort Walton Beach, in Okaloosa County, Florida;

that the attached copy of advertisement, being a Legal 2077759

in the matter of Public Notification

AVFID Beddown at Duke Field

in the Okaloosa County Court, was published in said newspaper in the issues of

May 29, 2012

Affiant further says that the said Northwest Florida Daily News is a newspaper published at Fort Walton Beach, in said Okaloosa County, Florida, and that the said newspaper has heretofore been continuously published in said Okaloosa County, Florida, each day, and has been entered as second class mail matter at the post office in Fort Walton Beach, in said Okaloosa County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that (s)he has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

STATE OF FLORIDA
COUNTY OF OKALOOSA

Subscribed and sworn to (or affirmed) before me this 29 May 2012
(Date)

by Maureen Wilkes, who is/are personally known to me or

has/have produced Personally Known as identification.
(Type of identification)

Eleanor Hypes Notary Public, Commission No. _____
(Signature)

_____(Name of Notary typed, printed or stamped)

ELEANOR HYPES
Notary Public - State of Florida
My Comm. Expires Jul 30, 2015
Commission # EE 116319
Bonded Through National Notary Assn.

PUBLIC NOTIFICATION

In compliance with the National Environmental Policy Act, Eglin Air Force Base announces the availability of a Draft Environmental Assessment and Finding of No Significant Impact for the proposed Aviation Foreign Internal Defense (AvFID) aircraft beddown and associated construction projects at Duke Field, for public review and comment.

There are two primary elements of the Proposed Action addressed in this EA: one concerns the proposed beddown of AvFID fixed-wing aircraft at Duke Field and the other focuses on facilities construction and infrastructure improvements necessary to support the proposed aircraft beddown.

The proposed beddown would include the standup of a Combat Aviation Advisor Special Operations Squadron and Special Operations Maintenance Squadron at Duke Field, including 16 light, twin-engine, fixed-wing aircraft. Under the new AvFID mission, Duke Field would primarily be used for launch and recovery operations, maintenance and training. New construction, and additions and alterations to existing facilities, would occur at Duke Field to facilitate and support the safe and efficient accomplishment of the new AvFID mission. These construction projects would include: 1) installation of a temporary AvFID squadron operations facility; 2) construction of a permanent AvFID squadron operations facility and associated parking and roadway to house both Active and Reserve Component operational squadrons; 3) demolition of Building 3025, reconfiguration and expansion of apron, pad, and taxiway pavements, and associated maintenance facility construction in order to provide appropriate infrastructure and address existing airfield safety issues; 4) construction of additions and alterations to maintenance facilities; and 5) construction of an addition between Hangars 3020 and 3029 in order to co-locate maintenance administrative functions with hangar space.

Your comments on this Draft EA are requested. Letters and other written or oral comments provided will be addressed and may be published in the Final EA. Any personal information provided, including private addresses, will be used only to identify your desire to make a statement during the public comment period or to compile a mailing list to fulfill requests for copies of the Final EA or associated documents. However, only the names and respective comments of respondent individuals will be disclosed: personal home addresses and phone numbers will not be published in the Final EA.

The Draft Environmental Assessment and Draft Finding of No Significant Impact are available on the web at www.eglin.af.mil/environmentalassessments.asp from May 29 until Jun. 27, 2012. All area libraries have computers available to the general public and librarians who can provide assistance linking to the document. Copies of the document may be available for a limited time by contacting: Mike Spaits, 96th Air Base Wing Environmental Public Affairs, 101 W. D Ave., Ste. 110, Eglin AFB, Fla., 32542, or email: mike.spaits@eglin.af.mil. Tel: (850) 882-2836; Fax: (850) 882-3761.

The documents will be available on the web from May 29, 2012 until Jun. 27, 2012. For more information or to comment on the Proposed Action, contact Mike Spaits, at the contact listed above. Comments must be received by Jun. 29, 2012.

2077750

Florida Department of Environmental Protection
Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

June 28, 2012

Mr. Terry L. Perkins
Department of the Air Force
96 CEG/CEVSP
501 DeLeon Street, Suite 101
Eglin AFB, FL 32542-5133

RE: Department of the Air Force – Draft Environmental Assessment for Aviation Foreign Internal Defense Beddown (AvFID) at Duke Field, Eglin Air Force Base – Okaloosa County, Florida.
SAI # FL201205256245C

Dear Mr. Perkins:

The Florida State Clearinghouse has coordinated a review of the referenced Draft Environmental Assessment (EA) under the following authorities: Presidential Executive Order 12372; § 403.061(42), *Florida Statutes*; the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended; and the National Environmental Policy Act, 42 U.S.C. §§ 4321-4347, as amended.

As noted in the Draft EA, the Florida Department of Environmental Protection (DEP) confirms that the project will require an environmental resource permit from the Northwest Florida Water Management District (NWFWMD) under Chapter 62-346, *Florida Administrative Code*. Please contact the NWFWMD's Crestview Field Office at (850) 683-5044 for further assistance and permitting information. In addition, an NPDES permit will be required from the DEP's NPDES Stormwater Program in Tallahassee; please call (850) 245-7522 for additional information.

The Florida Fish and Wildlife Conservation Commission (FWC) notes that Eglin AFB has made commitments that will avoid or minimize impacts to listed species from the proposed action, including: ensuring that a qualified biologist performs a red-cockaded woodpecker survey prior to construction; providing instructions to construction personnel to prevent harm to Eastern indigo snakes; surveying for, avoiding and relocating gopher tortoises within the construction area; and ceasing construction if Florida black bears are found in the area. Please refer to the enclosed FWC letter for further details.

Based on the information contained in the Draft EA and enclosed agency comments, the state has determined that, at this stage, the proposed federal activities are consistent with the Florida Coastal Management Program (FCMP). To ensure the project's continued consistency with the FCMP, the concerns identified by our reviewing agencies must be addressed prior to project implementation. The state's continued concurrence will be based on the activity's compliance with FCMP authorities, including federal and state monitoring of the activity to ensure its continued conformance, and the adequate resolution of issues identified during this and subsequent reviews. The state's final concurrence of the project's consistency with the FCMP will be determined during the environmental permitting process in accordance with Section 373.428, *Florida Statutes*.

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

Yours sincerely,

Sally B. Mann

Sally B. Mann, Director
Office of Intergovernmental Programs

SBM/lm
Enclosures

cc: Scott Sanders, FWC

Project Information	
Project:	FL201205256245C
Comments Due:	06/28/2012
Letter Due:	07/09/2012
Description:	DEPARTMENT OF THE AIR FORCE - DRAFT ENVIRONMENTAL ASSESSMENT FOR AVIATION FOREIGN INTERNAL DEFENSE BEDDOWN (AVFID) AT DUKE FIELD, EGLIN AIR FORCE BASE - OKALOOSA COUNTY, FLORIDA.
Keywords:	USAF - DEA, AVFID BEDDOWN AT DUKE FIELD, EGLIN AFB - OKALOOSA CO.
CFDA #:	12.200

Agency Comments:
FISH and WILDLIFE COMMISSION - FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
The FWC notes that Eglin AFB has made commitments that will avoid or minimize impacts to listed species from the proposed action, including: ensuring that a qualified biologist performs a red-cockaded woodpecker survey prior to construction; providing instructions to construction personnel to prevent harm to Eastern indigo snakes; surveying for, avoiding and relocating gopher tortoises within the construction area; and ceasing construction if Florida black bears are found in the area. Please refer to the enclosed FWC letter for further details.
NORTHWEST FLORIDA WMD - NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
No Comments
ENVIRONMENTAL PROTECTION - FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
As noted in the Draft EA, the project will require an environmental resource permit from the Northwest Florida Water Management District (NWFWMD) per Chapter 62-346, Florida Administrative Code. Please contact the NWFWMD's Crestview Field Office at (850) 683-5044 for further assistance and permitting information. In addition, an NPDES permit will be required from the Department's NPDES Stormwater Program in Tallahassee; please call (850) 245-7522 for additional information.
STATE - FLORIDA DEPARTMENT OF STATE
No Comment/Consistent
WEST FLORIDA RPC - WEST FLORIDA REGIONAL PLANNING COUNCIL
No Comments - Generally consistent with the West Florida Strategic Regional Policy Plan.
OKALOOSA - OKALOOSA COUNTY
No Comments

For more information or to submit comments, please contact the Clearinghouse Office at:

3900 COMMONWEALTH BOULEVARD, M.S. 47
TALLAHASSEE, FLORIDA 32399-3000
TELEPHONE: (850) 245-2161
FAX: (850) 245-2190

Visit the Clearinghouse Home Page to query other projects.

Florida Fish and Wildlife Conservation Commission

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Kathy Barco
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Executive Staff
Nick Wiley
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Greg Holder
Assistant Executive Director

Karen Ventimiglia
Chief of Staff

Office of the
Executive Director
Nick Wiley
Executive Director

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Managing fish and wildlife resources for their long-term well-being and the benefit of people.

620 South Meridian Street
Tallahassee, Florida
32399-1600
Voice: (850) 488-4676

Hearing/speech-impaired:
(800) 955-8771 (T)
(800) 955-8770 (V)

MyFWC.com

June 8, 2012

Ms. Lauren P. Milligan
Environmental Manager
Florida State Clearinghouse
Florida Department of Environmental Protection
3900 Commonwealth Boulevard, MS 47
Tallahassee, FL 32399-3000
Lauren.Milligan@dep.state.fl.us

Re: SAI #FL201205256245C, Department of the Air Force, Draft Environmental Assessment, Aviation Foreign Internal Defense Beddown (AvFID) at Duke Field, Eglin Air Force Base, Okaloosa County, Florida

Dear Ms. Milligan:

Florida Fish and Wildlife Conservation Commission (FWC) staff has reviewed the Draft Environmental Assessment (DEA), and provides the following comments and recommendations in accordance with the Coastal Zone Management Act, Florida's Coastal Management Program for your consideration.

Proposed Action

The proposed action includes the beddown of Aviation Foreign Internal Defense (AvFID) fixed-wing aircraft at Duke Field, located in Eglin Air Force Base (AFB), Okaloosa County. This action relates to facilities construction and infrastructure improvements necessary for military staff and support personnel. New construction is proposed as well as additions and alterations to existing facilities within the footprint of Duke Field.

Potentially Affected Resources

The DEA, Section 3.4.2, describes the threatened and endangered biological resources that could be affected by the project. These include the red-cockaded woodpecker (*Picoides borealis*, Federally Endangered) and its habitat, Eastern indigo snake (*Drymarchon corais couperi,* Federally Threatened), Gopher tortoise [*Gopherus polyphemus,* State-Threatened (ST)], and the Florida black bear [*Ursus americanus floridanus* (ST)]. A red-cockaded woodpecker colony, located near the proposed action, is an inactive colony and will be avoided during any construction activity.

Comments and Recommendations

Eglin has stated their commitments to avoid or minimize impacts from the proposed action. These commitments are identified in Section 4.2.2 of the DEA, and include the following:

Eglin has committed to having a qualified biologist (with education and training in wildlife biology or ecology) perform a red-cockaded woodpecker survey prior to initiating any construction activities or disturbance within the proposed project area. It is also their intent to avoid potential impacts to any red-cockaded woodpecker nesting clusters.

Eglin has committed to provide construction personnel a description of the eastern indigo snake and instructions not to harass, injure, harm, or kill indigo snakes. If an indigo snake is sighted, construction personnel will cease activities and allow the eastern indigo snake sufficient time to move away from the site on its own before resuming activities.

Eglin has committed to 1) perform a gopher tortoise survey prior to any construction or disturbance; 2) if a gopher tortoise burrow cannot be avoided, then the tortoise would be relocated in accordance with FWC protocols; and 3) should a gopher tortoise burrow be identified within the proposed path of construction by construction personnel, work would cease until Natural Resources personnel have investigated the burrow and relocated any gopher tortoise or commensals to a suitable location.

Finally, Eglin has indicated that in the unlikely event that construction personnel come into contact with a black bear, all activities will cease until the bear has moved away from the area.

FWC believes that the commitments identified in Section 4.2.2 of the DEA will serve to minimize or avoid impacts to fish and wildlife resources and we concur that the proposed project is consistent with our authorities under Chapter 379, Florida Statutes. If you need further assistance, please do not hesitate to contact Jane Chabre either by phone at (850) 410-5367 or at FWCConservationPlanningServices@MyFWC.com. If you have specific technical questions regarding the content of this letter, please contact Theodore Hoehn at 850-488-8792 or by email at ted.hoehn@myfwc.com.

Sincerely,

for, Scott Sanders, Director
Office of Conservation Planning Services

ss/bg/th
ENV 1-3-2
Eglin AFB – Duke Field Beddown (AVFID)_16340_060812.doc

COUNTY: OKALOOSA
SCH-106-USAF-EG
2012-2680

DATE: 5/25/2012
COMMENTS DUE DATE: 6/28/2012
CLEARANCE DUE DATE: 7/9/2012
SAI#: FL201205256245C

MESSAGE:

STATE AGENCIES	WATER MNGMNT. DISTRICTS	OPB POLICY UNIT	RPCS & LOC GOVS
ENVIRONMENTAL PROTECTION	NORTHWEST FLORIDA WMD		
FISH and WILDLIFE COMMISSION			
X STATE			

The attached document requires a Coastal Zone Management Act/Florida Coastal Management Program consistency evaluation and is categorized as one of the following:

X **Federal Assistance to State or Local Government (15 CFR 930, Subpart F). Agencies are required to evaluate the consistency of the activity.**

_ **Direct Federal Activity (15 CFR 930, Subpart C). Federal Agencies are required to furnish a consistency determination for the State's concurrence or objection.**

_ **Outer Continental Shelf Exploration, Development or Production Activities (15 CFR 930, Subpart E). Operators are required to provide a consistency certification for state concurrence/objection.**

_ **Federal Licensing or Permitting Activity (15 CFR 930, Subpart D). Such projects will only be evaluated for consistency when there is not an analogous state license or permit.**

Project Description:

DEPARTMENT OF THE AIR FORCE - DRAFT ENVIRONMENTAL ASSESSMENT FOR AVIATION FOREIGN INTERNAL DEFENSE BEDDOWN (AVFID) AT DUKE FIELD, EGLIN AIR FORCE BASE - OKALOOSA COUNTY, FLORIDA.

To: Florida State Clearinghouse

AGENCY CONTACT AND COORDINATOR (SCH)
3900 COMMONWEALTH BOULEVARD MS-47
TALLAHASSEE, FLORIDA 32399-3000
TELEPHONE: (850) 245-2161
FAX: (850) 245-2190

EO. 12372/NEPA
- ☑ No Comment
- ☐ Comment Attached
- ☐ Not Applicable

Federal Consistency
- ☑ No Comment/Consistent
- ☐ Consistent/Comments Attached
- ☐ Inconsistent/Comments Attached
- ☐ Not Applicable

From:
Division/Bureau: Division of Historical Resources
Bureau of Historic Preservation

Reviewer: S. Edwards — Laura A. Kammerer, Deputy SHPO

Date: 6-15-2012 — 6-15-2012

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JUN 20 2012
DEP Office of Intergovt'l Programs

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BUREAU OF HISTORIC PRESERVATION

APPENDIX C

AIR QUALITY CALCULATIONS

Preliminary 1995 EPA Standards

FY	Action	Component	Square Footage	Total Sq. Ft. by Action	Total Disturbed Acrage	Emissions per Month	Emissions per Year	Emissions after Mitigation
2013	AvFID Operations and MX	Operations and Training Ops Facility	78,800					
		Training Devices Facility	18,000					
		Pavement	350,000	446,800	10.28	12.3	148.0	37.0
	AvFID Operations and MX	Demo Bldg 3025	59,302					
		New Pad for Aircraft	63,000					
		New Apron and Taxiway	304,700	427,002	9.82	11.8	141.4	35.4
	AMU Addition	Bldg Addition	14,000	14,000	0.32	0.4	4.6	1.2
Total		**Total**		**887,802**	**20.42**	**24.5**	**294.0**	**73.5**

2006 EPA Standards

FY	Action	Component	Square Footage	Total Sq. Ft. by Action	PM_{10} Emissions Factor	PM_{10} Emissions per Month	PM_{10} Emissions per Year	$PM_{2.5}$ Emissions per Year	Total Fugitive Dust Emissions (PM_{10} & $PM_{2.5}$)	Emissions after Mitigation
2013	AvFID Operations and MX Facilities - Operations Facility	Operations and Training Ops Facility	78,800	1.81	0.19	0.3	4.1	0.41	4.55	1.1
		Training Devices Facility	18,000	0.41	0.19	0.1	0.9	0.09	1.04	0.3
		Pavement	350,000	8.05	0.42	3.4	40.6	4.06	44.63	11.2
	AvFID Operations and MX Facilities - Airfield Pavements/Maintenance Facilities	Demo Bldg 3025	59,302	1.36	0.19	0.3	3.1	0.31	3.42	0.9
		New Pad for Aircraft	63,000	1.45	0.19	0.3	3.3	0.33	3.63	0.9
		New Apron and Taxiway	304,700	7.01	0.42	2.9	35.3	3.53	38.85	9.7
	AMU Addition	Bldg Addition	14,000	0.32	0.19	0.1	0.7	0.07	0.81	0.2
Total			**887802**	**20.4**			**88.1**	**8.8**	**96.9**	**24.2**

Combustion Calculations

			Emission Factors (lb/hr)					Emissions (tons/year)				
Year	**Equipment**	**Hours**	**CO**	**NO_x**	**PM_{10}**	**SO_x**	**VOC**	**CO**	**NO_x**	**SO_x**	**VOC**	**PM_{10}**
2013	Off-Highway Truck	1920	0.567	1.623	0.084	0.276	0.148	0.544	1.558	0.265	0.142	0.081
	Motor Grader	1920	0.424	0.858	0.086	0.115	0.132	0.407	0.824	0.110	0.127	0.083
	Trencher	1920	0.268	0.508	0.054	0.000	0.090	0.257	0.488	0.000	0.086	0.052
	Loader	1920	1.209	3.037	0.123	0.453	0.232	1.161	2.916	0.435	0.223	0.118
	Roller	1920	0.419	0.961	0.069	0.144	0.117	0.402	0.923	0.138	0.112	0.066
	Paving Equipment	1920	0.449	0.894	0.067	0.165	0.120	0.431	0.858	0.158	0.115	0.064
Sub-Total								3.20	7.57	1.11	0.81	0.46
Year	**Activity**	**Mileage**	**CO**	**NO_x**	**PM_{10}**	**SO_x**	**VOC**	**CO**	**NO_x**	**SO_x**	**VOC**	**PM_{10}**
2013	Construction Workers Commute	48000	16.580	1.640	0.078	0.005	2.470	0.88	0.09	0.00	0.13	0.00
Total								4.08	7.65	1.11	0.94	0.47

APPENDIX D

CZMA CONSISTENCY DETERMINATION

FEDERAL AGENCY COASTAL ZONE MANAGEMENT ACT (CZMA) CONSISTENCY DETERMINATION

Introduction

This document provides the State of Florida with the U.S. Air Force's Consistency Determination under CZMA Section 307 and 15 C.F.R. Part 930 sub-part C. The information in this Consistency Determination is provided pursuant to 15 C.F.R. Section 930.39 and Section 307 of the Coastal Zone Management Act, 16 U.S.C. § 1456, as amended, and its implementing regulations at 15 C.F.R. Part 930.

This federal consistency determination addresses the Proposed Action for the beddown of Aviation Foreign Internal Defense (AvFID) fixed-wing aircraft and the construction and infrastructure improvements to facilitate the beddown at Duke Field, Eglin Air Force Base (AFB), Florida (Figure 1).

Proposed Federal agency action:

Air Force Special Operations Command (AFSOC) proposes to standup an Active Component Combat Aviation Advisor (CAA) Special Operations Squadron (SOS) and Special Operations Maintenance Squadron (SOMXS) at Duke Field, including the purchase of an inventory of 16 light, twin-engine, fixed-wing aircraft. Under the new AvFID mission, Duke Field would primarily be used for launch and recovery operations, maintenance, and training. AvFID aircraft would conduct day/night airland and airdrop training at dirt/paved airstrips and associated DZs currently utilized by the 919 SOW's MC-130E aircraft for similar operations. Table 1 presents a summary of existing local aircraft operations associated with the current aircraft inventory and proposed local aircraft operations following the AvFID aircraft beddown. Implementation of the Proposed Action would result in an increase of only 57 personnel to the Eglin AFB complex.

New construction, additions and alterations to existing facilities would occur at Duke Field to facilitate and support the proposed AvFID beddown. Approximate locations for the projects proposed are depicted in Figure 2 and Table 2. The size, construction year, and exact location of some construction projects could potentially change based on future funding and as designs develop (Figure 3). Each building site would be developed to provide maximum efficiency, adequate stormwater runoff detention, and compliance with all relevant safety regulations. All new construction would be built in a style consistent with existing architecture at the installation.

Table 1. Existing and Proposed Aircraft Activity in Eglin Controlled Restricted Airspace

Aircraft	Annual Allocated Operating Hours	Average Sortie[1] Duration	Ranges Used
Currently Assigned Aircraft			
MC-130E	1,500	4.0 hours	B6 Field 6/Sontay DZ C61A Field 1/Pino DZ
After Proposed Aircraft Beddown			
light, twin-engine, fixed-wing aircraft[2]	1,440	4.0 hours	B6 Field 6/Sontay DZ C61A Field 1/Pino DZ

[1]A sortie is defined as a series of single events (i.e., operations) that include landings, takeoffs, and individual climb-out and descent portions of a closed pattern.
[2]Total inventory would include 16 aircraft; nine Active Component aircraft would be deployed globally at all times; the seven remaining Reserve Component aircraft would be located at Duke Field.

Table 2. Proposed Construction Projects

Project Number[1]	Project Title	FY	Size	Key Components
1	Temporary Facility for AvFID Squad Ops	2012	36,500 sf	• 36,500-sf temporary facility (mobile trailers)
2	AvFID Operations and MX Facilities – Operations Facility	2013	78,800 sf	• 78,800-sf operations and training operations facility • 18,000-sf training devices facility • Approximately 335 parking spaces • Roadway extension and realignment
3	AvFID Operations and MX Facilities – Airfield Pavements/Maintenance Facilities	2013	1,795,292sf	• Demolish Building 3025 (59,302 sf) • 1,726,700 sf of apron, pad and taxiway improvements, including: o New pad for Aircraft Washrack (63,000 sf) o New apron and taxiway to integrate pad into existing airfield pavements (304,700 sf) o Reconfiguration of existing apron and taxiway circulation (1,359,000 sf) • Relocate existing Aircraft Washrack shelter (equipment) • New Aircraft Washrack staging and storage facility (495 sf) • New AGE covered and open storage (8,795 sf)
4	AvFID Operations and MX Facilities – Maintenance Facilities	2013	22,840 sf	• 22,840-sf for alteration of corrosion control facility (Building 3117) and addition of paint booth
5	AMU Addition	2013	14,000 sf	• 14,000-sf addition between Buildings 3020 and 3029

[1] Key refers to locations depicted on Figure 2-1.
ADAL- Additions and Alterations
AGE – Aerospace Ground Equipment
AMU – Aircraft Maintenance Unit
MX – maintenance
sf – square feet

Federal Consistency Review

Statutes addressed as part of the Florida Coastal Zone Management Program consistency review and considered in the analysis of the Proposed Action are discussed in the following table.

Pursuant to 15 C.F.R. § 930.41, the Florida State Clearinghouse has 60 days from receipt of this document in which to concur with or object to this Consistency Determination, or to request an extension, in writing, under 15 C.F.R. § 930.41(b). Florida's concurrence will be presumed if Eglin AFB does not receive its response on the 60th day from receipt of this determination.

Florida Coastal Management Program Consistency Review

Statute	Consistency	Scope
Chapter 161 *Beach and Shore Preservation*	The Proposed Action would not affect beach and shore management, specifically as it pertains to: • The Coastal Construction Permit Program. • The Coastal Construction Control Line (CCCL) Permit Program. • The Coastal Zone Protection Program. All activities would occur on federal property.	This statute provides policy for the regulation of construction, reconstruction, and other physical activities related to the beaches and shores of the state. Additionally, this statute requires the restoration and maintenance of critically eroding beaches.
Chapter 163, Part II *Growth Policy; County and Municipal Planning; Land Development Regulation*	The Proposed Action would not affect local government comprehensive plans.	Requires local governments to prepare, adopt, and implement comprehensive plans that encourage the most appropriate use of land and natural resources in a manner consistent with the public interest.
Chapter 186 *State and Regional Planning*	The Proposed Action would be consistent with Florida's statutes and regulations regarding state plans for water use, land development or transportation.	Details state-level planning efforts. Requires the development of special statewide plans governing water use, land development, and transportation.
Chapter 252 *Emergency Management*	The Proposed Action would not affect the state's vulnerability to natural disasters. The Proposed Action would not affect emergency response and evacuation procedures.	Provides for planning and implementation of the state's response to, efforts to recover from, and the mitigation of natural and manmade disasters.
Chapter 253 *State Lands*	All actions will take place within Eglin AFB property. Therefore, the Proposed Action would not negatively affect state lands.	Addresses the state's administration of public lands and property of this state and provides direction regarding the acquisition, disposal, and management of all state lands.
Chapter 258 *State Parks and Preserves*	All actions would take place within Eglin AFB property. Therefore, the Proposed Action would not negatively affect state parks, recreational areas and aquatic preserves.	Addresses administration and management of state parks and preserves.
Chapter 259 *Land Acquisition for Conservation or Recreation*	The Proposed Action would not affect tourism and/or outdoor recreation.	Authorizes acquisition of environmentally endangered lands and outdoor recreation lands.
Chapter 260 *Florida Greenways and Trails Act*	The Proposed Action would not affect the Greenways and Trails Program.	Established in order to conserve, develop, and use the natural resources of Florida for healthful and recreational purposes.

Chapter 267 *Historical Resources*	There are no known cultural resources located in the vicinity of the project area. However, in the event that additional archaeological resources are inadvertently discovered during construction, 96th CEG/CEVH, Cultural Resources would be notified immediately and further ground-disturbing activities would cease in that area. Identified resources would be managed in compliance with Federal Law and Air Force regulations. Therefore, the Proposed Action would be consistent with Florida's statutes and regulations regarding the state's archaeological and historical resources.	Addresses management and preservation of the state's archaeological and historical resources.
Chapter 288 *Commercial Development and Capital Improvements*	The Proposed Action would occur on federal property and would not directly or indirectly affect future business opportunities on state lands, or the promotion of tourism in the region.	Promotes and develops general business, trade, and tourism components of the state economy
Chapter 334 *Transportation Administration*	The Proposed Action would not affect transportation.	Addresses the state's policy concerning transportation administration.
Chapter 339 *Transportation Finance and Planning*	The Proposed Action would not affect the finance and planning needs of the state's transportation system.	Addresses the finance and planning needs of the state's transportation system.
Chapter 373 *Water Resources*	An Environmental Resource Permit (ERP) from the Northwest Florida Water Management District (NWFWMD) per FAC 62-346 would be required for the Proposed Action. Applicable permitting requirements would be satisfied in accordance with FAC 62-25 and National Pollutant Discharge Elimination System (NPDES). Eglin AFB would submit a notice of intent to use the generic permit for stormwater discharge under the NPDES program prior to project initiation according to Section 403.0885, Florida Statutes (FS). The Proposed Action would also require coverage under the generic permit for stormwater discharge from construction activities that disturb one or more acres of land (FAC 62-621). Eglin Water Resources (96 CEG/CEVCE) would coordinate all applicable permitting requirements in accordance with the Florida Administrative Code. Therefore, the Proposed Action would be	Addresses sustainable water management; the conservation of surface and ground waters for full beneficial use; the preservation of natural resources, fish, and wildlife; protecting public land; and promoting the health and general welfare of Floridians.

	consistent with Florida's statutes and regulations regarding the water resources of the state.	
Chapter 375 *Outdoor Recreation and Conservation Lands*	The Proposed Action would not affect opportunities for recreation on state lands.	Develops comprehensive multipurpose outdoor recreation plan to document recreational supply and demand, describe current recreational opportunities, estimate need for additional recreational opportunities, and propose means to meet the identified needs.
Chapter 376 *Pollutant Discharge Prevention and Removal*	Construction activities may require the use of hazardous materials, and hazardous waste may be generated. However, the Proposed Action would not increase hazardous material or hazardous waste significantly. Proper handling, use and disposal of hazardous materials and waste, including materials such as sealant and surface treatment substances used for parking apron concrete restoration, are routine at Eglin AFB, personnel will adhere to the present Hazardous Waste Management Plan (HWMP) tracking and reporting requirements. The Proposed Action would not affect the transfer, storage, or transportation of pollutants.	Regulates transfer, storage, and transportation of pollutants, and cleanup of pollutant discharges.
Chapter 377 *Energy Resources*	The Proposed Action would not affect energy resource production, including oil and gas, and/or the transportation of oil and gas.	Addresses regulation, planning, and development of oil and gas resources of the state.
Chapter 379 *Fish and Wildlife Conservation*	Prior to project initiation a red-cockaded woodpecker (RCW) survey is required. This survey will determine suitability of habitat in order to establish location of possible cavity trees in the area. If any trees are found, consultation with the USFWS will be required prior to clearing trees. Prior to project initiation a gopher tortoise survey is required. If a gopher tortoise burrow cannot be avoided, then the tortoise would be relocated in accordance with the Florida Fish and Wildlife Conservation Commission (FWC) protocols. Therefore the Proposed Action would be consistent with the State's policies concerning the protection of wildlife.	Addresses the management and protection of the state of Florida's wide diversity of fish and wildlife resources.

Chapter 380 *Land and Water Management*	The Proposed Action would occur on federally owned lands. Under the Proposed Action, development of state lands with regional (i.e. more than one county) impacts would not occur. No changes to coastal infrastructure such as capacity increases of existing coastal infrastructure, or use of state funds for infrastructure planning, designing or construction would occur.	Establishes land and water management policies to guide and coordinate local decisions relating to growth and development.
Chapter 381 *Public Health, General Provisions*	The Proposed Action would not affect the state's policy concerning the public health system.	Establishes public policy concerning the state's public health system.
Chapter 388 *Mosquito Control*	The Proposed Action would not affect mosquito control efforts.	Addresses mosquito control effort in the state.
Chapter 403 *Environmental Control*	Eglin's Water Resources Section (96 CEG/CEVCE) would coordinate all applicable permits in accordance with the FAC. Air quality impacts from the Proposed Action would be minimal. Eglin AFB would take reasonable precautions to minimize fugitive particulate (dust) emissions during any construction activities in accordance with FAC 62-296. Net increases to operational emissions, both from stationary and mobile sources, at Duke Field and Eglin AFB would be negligible under the Proposed Action. Total emissions would remain below *de minimis* levels and any adverse impacts to air quality under the Proposed Action would be less than significant. The Proposed Action would not significantly increase hazardous material or hazardous waste generated by Eglin. Eglin AFB personnel will adhere to the present HWMP tracking and reporting requirements. Therefore, the Proposed Action would not affect water quality, air quality, pollution control, solid waste management, or other environmental control efforts.	Establishes public policy concerning environmental control in the state.
Chapter 582 *Soil and Water Conservation*	All applicable BMPs, such as erosion and sediment controls and stormwater management measures would be implemented to minimize erosion and storm water run-off, and to regulate	Provides for the control and prevention of soil erosion.

	sediment control during construction. Therefore, the Proposed Action would be consistent with the Florida's statutes and regulations regarding soil and water conservation efforts.	

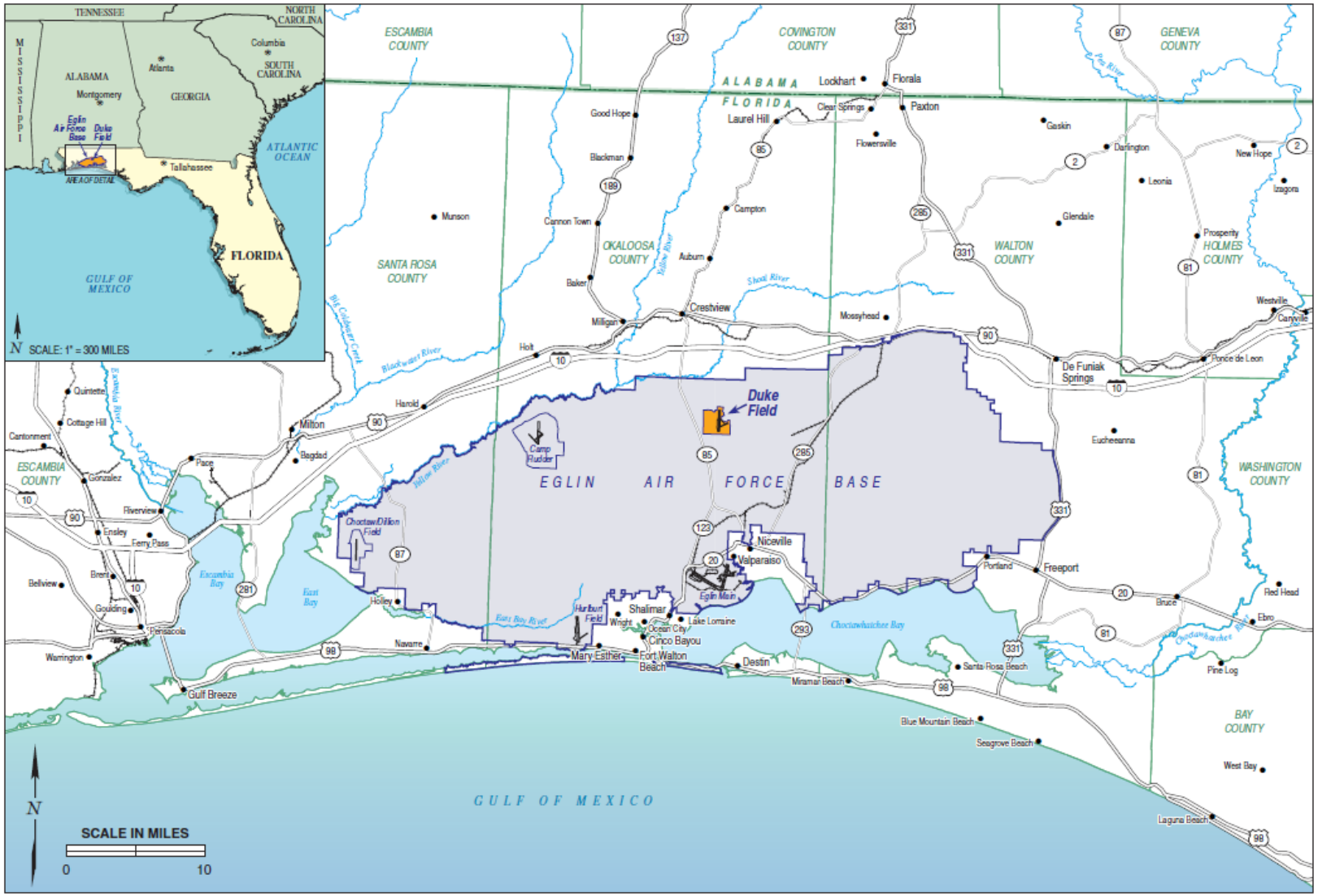

Figure 1. Regional Location Map

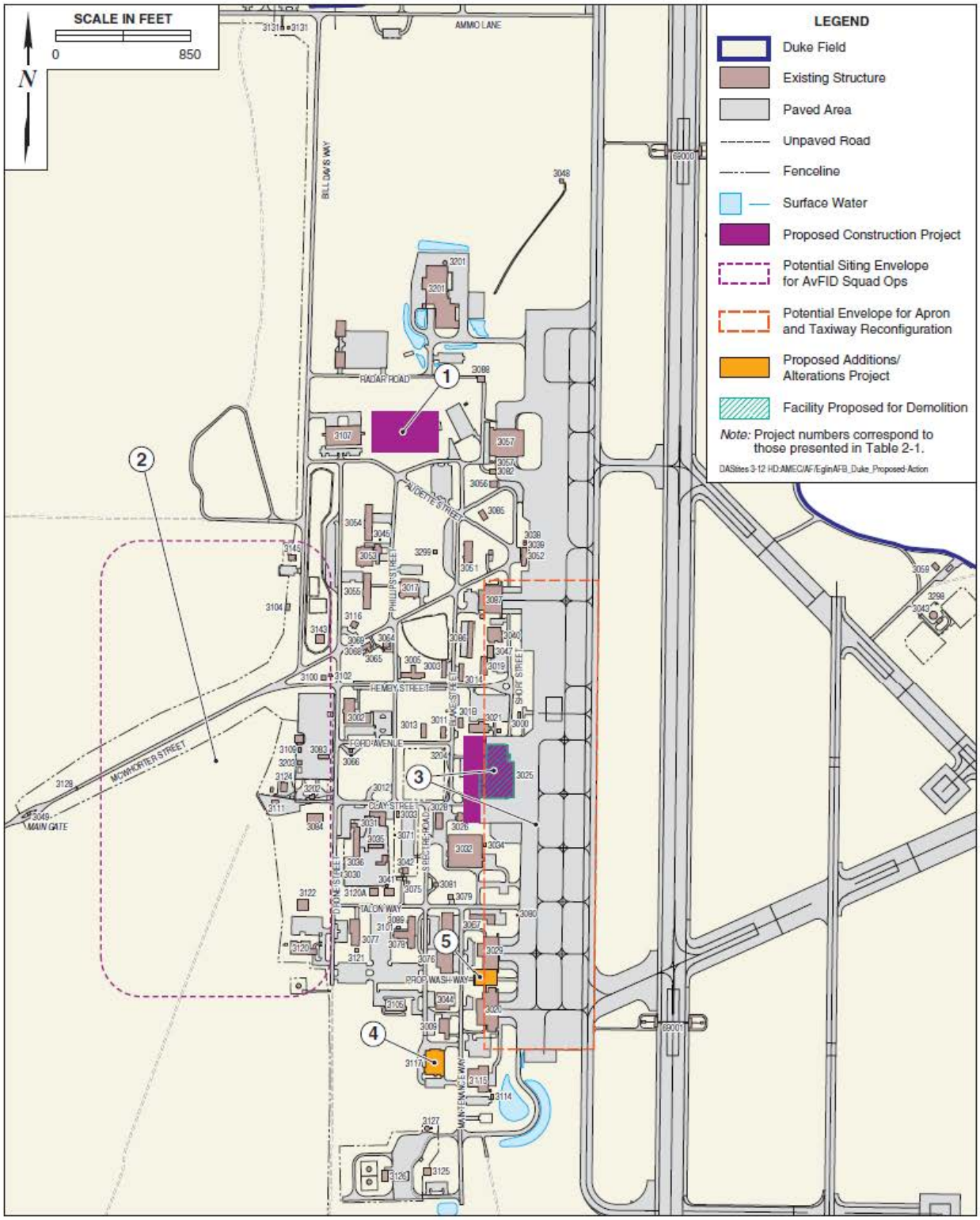

Figure 2. Proposed Construction Projects at Duke Field

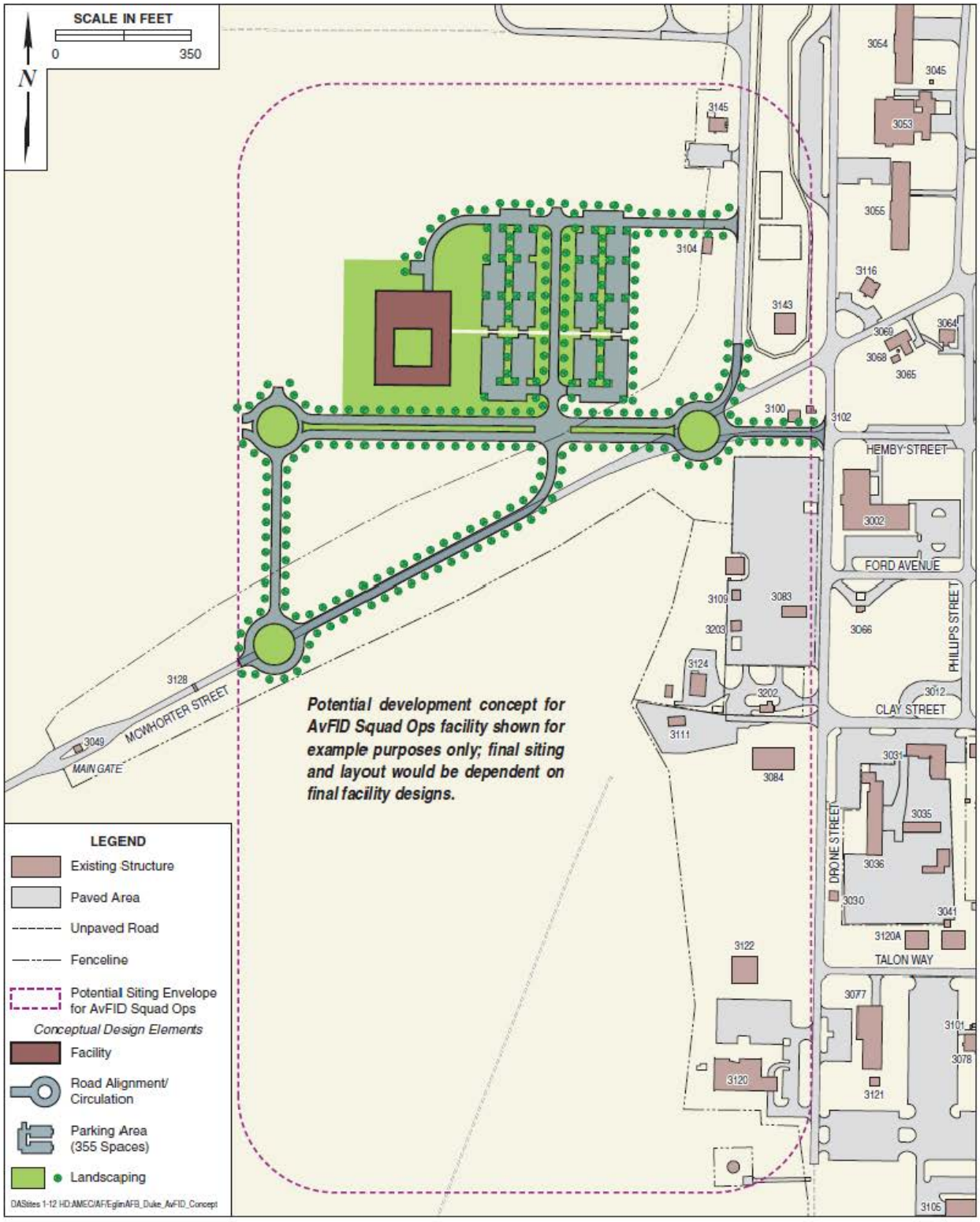

Figure 3. Example of Conceptual Design for AvFID Squad Ops within Potential Siting Envelope