Final

Environmental Assessment for Beddown of Air Force Reserve Command Classic Associate Unit on A/OA-10 Operations and Maintenance Moody Air Force Base, Georgia

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ACRONYMS AND ABBREVIATIONS

23 WG	23rd Wing
ACC	Air Combat Command
AFB	Air Force Base
AFI	Air Force Instruction
AFRC	Air Force Reserve Command
AGL	above ground level
AQCR	Air Quality Control Region
ARTCC	Air Route Traffic Control Center
ATC	Air Traffic Control
BASH	Bird-Aircraft Strike Hazard
BO	Biological Opinion
BRAC	Base Realignment and Closure
CAA	Clean Air Act
CAU	Classic Associate Unit
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CSAF	Chief of Staff of the Air Force
dB	decibels
DNL	day-night average sound level
DNL_{mr}	onset rate adjusted DNL
DNR	Department of Natural Resources
DoD	Department of Defense
EA	environmental assessment
EIS	environmental impact statement
EO	Executive Order
EOD	Explosive Ordnance Disposal
EPA	U.S. Environmental Protection Agency
FAA	Federal Aviation Administration
FICON	Federal Interagency Committee on Noise
FICUN	Federal Interagency Committee on Urban Noise
FL	Flight Level
ft	feet/foot
FWS	U.S. Fish and Wildlife Service
FY	Fiscal Year
IFR	Instrument Flight Rules
IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
IR	Instrument Route
LATN	Low Altitude Tactical Navigation
mgd	million gallons per day
MOA	Military Operations Area
MOU	Memorandum of Understanding
MSL	above mean sea level
MSW	municipal solid waste
MTR	Military Training Route
N	North
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
nm	nautical miles
nm^2	square nautical miles
NO_x	nitrogen oxides
NO_2	nitrogen dioxide
NOTAM	Notice to Airmen
NPS	National Park Service
N/S	North/South
NWR	National Wildlife Refuge
OSS/OSTR	Operations Support Squadron/ Training Flight Registrar
$PM_{2.5}$	particulate matter < 2.5 microns in diameter
PM_{10}	particulate matter < 10 microns in diameter
R-	Restricted Area
RAPCON	Radar Approach Control
ROI	Region of Influence
RTE	rare, threatened, and endangered
S	South
SEL	sound exposure level
SIP	State Implementation Plan
SO_2	sulfur dioxide
SUA	Special Use Airspace
SW	southwest
TFI	Total Force Integration
UGA	University of Georgia
ULZ	unimproved landing zone
U.S.	United States
USFS	United States Forest Service
UTA	Unit Training Assembly
VFR	Visual Flight Rules
VOC	volatile organic compound
VR	Visual Route
WMA	Wildlife Management Area

FINDING OF NO SIGNIFICANT IMPACT

ENVIRONMENTAL ASSESSMENT
BEDDOWN OF AIR FORCE RESERVE COMMAND CLASSIC ASSOCIATE UNIT ON A/OA-10 OPERATIONS AND MAINTENANCE AT MOODY AIR FORCE BASE, GEORGIA

Pursuant to Council on Environmental Quality (CEQ) regulations (40 Code of Federal Regulations [CFR] 1500-1508) implementing procedural provisions of the National Environmental Policy Act (NEPA) (Public Law 91-190, 42 U.S. Code 4321 et seq.), the U.S. Air Force Reserve Command (AFRC) gives notice that an environmental assessment (EA) has been prepared and an environmental impact statement (EIS) is not required for the proposed beddown of an AFRC Classic Associate Unit (CAU) on A/OA-10 operations and maintenance at Moody Air Force Base (AFB), Georgia.

1.0 PROPOSED ACTION

This EA is being prepared by the U.S. AFRC to evaluate the potential environmental impacts of establishing a CAU to train on A/OA-10 operations, maintenance, and medical functions at Moody AFB, Georgia. The establishment of a CAU at Moody AFB would include the following:

- working and training side-by-side with the host unit (i.e., supporting host unit mission taskings) using host facilities and equipment;
- training operations during the week (in conjunction with the normal active duty flying program) and one weekend per month; and
- CAU pilots conducting range-oriented training operations at Grand Bay Range and Townsend Range, Georgia.

The purpose of the Proposed Action is to fulfill a Chief of Staff of the Air Force (CSAF) Total Force Integration (TFI) initiative to meet operational mission requirements. The TFI initiative seeks to optimize Air Force capabilities for meeting operational mission requirements by aligning equipment, missions, infrastructure, and manpower resources within the Air Force to enable a more effective and efficient use of these assets.

The AFRC CAU on A/OA-10 operations and maintenance at Moody AFB would improve A/OA-10 capabilities by providing trained Reserve Airmen ready to support Air Expeditionary Force deployments and mobilizations when directed by higher headquarters. According to Air Force Policy Directive 90-10, dated 16 June 2006, a Classic Associate is an integration model where a Regular Air Force component unit retains principal responsibility for a weapon system or systems, which it shares with one or more reserve component units. Regular and reserve component units retain separate organizational structures and chains of command and functional integration is based on Memoranda of Understanding (MOUs). The Proposed Action is necessary to ensure, within the projected decrease of active duty force structure, that the Air Force maintains the capability to meet Combatant Commander requirements for both surge and sustained operations.

2.0 ALTERNATIVES CONSIDERED

In the initial screening of potential alternatives to the Proposed Action, the Air Force took into consideration minimum selection criteria. Only those alternatives that met these minimum criteria were considered suitable for detailed analysis. In compliance with NEPA and 32 CFR 989, which implements the NEPA process, the AFRC must consider reasonable alternatives to the Proposed Action. However, only those alternatives that are able to fulfill the purpose and need for the Proposed Action warrant detailed analysis. As part of the planning process, 23rd Wing (23 WG) environmental planning personnel at Headquarters AFRC systematically evaluated siting constraints, operational issues, and other factors to

identify the set of project alternatives that would satisfy the purpose and need for the Proposed Action. Reasonable criteria applied in the analysis included availability of equipment for training, availability of space, consolidation of similar functions, range safety regulations, and environmental constraints. The minimum selection criteria included:

- located at an Air Force installation;
- availability of A/OA-10 aircraft, equipment, and communications systems for training;
- available space for 193 CAU personnel, including space for medical personnel and 600 mobility bags for Traditional Reservists in the maintenance functions;
- available existing facility space (i.e., no new construction required, no funds planned or programmed by the Air Combat Command (ACC) or AFRC);
- availability of community support facilities and services;
- located at an operationally feasible distance from training ranges;
- availability of training ranges on the weekend;
- ability to train along side of Air Force Active Duty counterparts;
- compatibility with the Host's Master Plan and the Host's military mission;
- consolidation of similar functions;
- compliance with range safety regulations;
- consideration of environmental constraints; and
- conformance to ACC, Air Force, and Department of Defense (DoD) policies and regulations.

As a result of this analysis, no other action alternatives to the Proposed Action emerged that would satisfy the identified purpose and need and minimum selection criteria. Consequently, only the Proposed Action and the No-Action Alternative were carried forward for analysis in this EA.

Under the No-Action Alternative, a CAU would not be established at Moody AFB. This alternative does not satisfy the CSAF's TFI initiative to optimize Air Force capabilities for meeting operational mission requirements nor does it support the CSAF's directive to establish a CAU at Moody AFB. Nonetheless, CEQ guidelines stipulate that the No-Action Alternative be analyzed to assess any environmental consequences that may occur if the Proposed Action is not implemented. Therefore, this alternative has been carried forward for analysis in this EA.

3.0 SUMMARY OF ENVIRONMENTAL EFFECTS

NEPA and CEQ regulations, as well as AFRC and Air Force procedures for implementing NEPA, specify that an EA should focus only on those resource areas potentially subject to impacts. In addition, the level of analysis applied to any given resource area should be commensurate with the level of impact anticipated for that resource. Applying these guidelines, the following resource areas are analyzed in this EA: air quality, natural resources management, airspace management/operations, transportation, utilities, noise, safety, recreation, and socioeconomics. The following additional resource areas were not analyzed in this EA, as the potential for impacts was considered to be negligible or nonexistent: soil resources, water resources, biological resources, land use, hazardous materials and waste, visual resources, cultural resources, environmental justice, and protection of children.

Under the Proposed Action, there would be a slight increase in aircraft sortie-operations and personnel at Moody AFB. Implementation of the Proposed Action would result in an increase of emissions as a result of increased aircraft operations; however, emissions would be minimal given that the annual aircraft flying hour program limits the accumulation of flying hours on the airframe. Mobile source vehicle emissions from an increase in personnel commuting to and from the base would be negligible. Therefore,

no significant impacts to air quality would occur as a result of vehicle or aircraft emissions associated with the Proposed Action.

The Proposed Action would have no significant impacts on natural resources management. The Proposed Action would reduce the amount of days available for natural resource management activities including prescribed burns, habitat management activities, and conducting surveys for gopher tortoise and indigo snake as required by the terms and conditions of the existing U.S. Fish and Wildlife Service Bemiss Field Drop Zone Biological Opinion. However, additional coordination between natural resources management and air operations at Moody AFB would be required to ensure that Moody AFB can continue natural resource management activities and meet the terms and conditions for wildlife survey as stipulated in the Bemiss Field Drop Zone Biological Opinion. With this additional coordination, there would be no significant impacts to natural resources management with implementation of the Proposed Action.

Under the Proposed Action, no changes to the airspace structure associated with Moody AFB or to the Air Traffic Control (ATC) procedures for its management would occur. Aircraft using Moody AFB and Grand Bay Range would continue to follow existing flight profiles and procedures and would operate within the same airspace as they do under baseline conditions. There would be a slight increase to the number of airfield operations at Moody AFB and Grand Bay Range and a minor increase in annual sortie operations for each airspace unit currently used by A/OA-10s at Moody AFB except for the Townsend Range airspace unit (R-3007). Sorties would not increase in the R-3007 Townsend Range airspace unit because Moody AFB has maximized the number of sortie operations that can be flown to Townsend Range; Townsend Range airspace is limited due to restrictions associated with the Coastal Military Operations Area (MOA) and priority of other users at Townsend Range. Overall there, would be minor impacts to the existing airspace scheduling or management.

Under the Proposed Action, there would be an increase in personnel reporting to Moody AFB resulting in an insignificant increase in daily commuting traffic to and from Moody AFB. There may be a slight increase in congestion, which generally occurs at the gates during the morning and evening workday rush hours, and a slight decrease in the availability of parking on base. However, vehicular circulation and parking on the installation are adequate and would be able to accommodate the small addition of personnel. Drill weekend traffic volumes would not be expected to adversely impact traffic patterns locally or on the base as the presence of Active Duty and civilian personnel on the weekends is minimal. Congestion would be most pronounced as base access is attained at the start of weekend training. Therefore, no adverse impacts to vehicle parking or traffic circulation would be anticipated during Reservist training weeks.

The Proposed Action would have no significant impacts on utilities. Under the proposed alternative, CAU personnel would occupy buildings currently in use, thereby increasing electrical and natural gas use slightly. The CAU beddown would be expected to increase wastewater and solid waste generation; however, the demand created by the CAU beddown would be within the available capacity of the Moody AFB wastewater treatment plant and local landfill. Therefore, utilities are not expected to be impacted by the Proposed Action.

Although there would be an increase in sortie-operations at Moody AFB and Grand Bay Range under the Proposed Action, there would be no observable increase in aircraft-associated noise at Moody AFB and the total acreage in the vicinity of Moody AFB exposed to noise levels greater than 65 dB would not change from current operations. Proposed A/OA-10 sortie-operations in associated airspace units would not change noise levels from baseline conditions. Existing overflight avoidance procedures for noise sensitive areas under the affected airspace would continue to be observed. Therefore, there would be no change in the noise environment with implementation of the Proposed Action.

Under the Proposed Action, there would be no changes to the safety procedures and activities at Moody AFB and Grand Bay Range would continue to be conducted using the same processes and procedures as under current operations. All actions would be accomplished by technically qualified personnel and would be conducted in accordance with applicable Air Force safety requirements, approved technical data, and standards. There would not be an increase in flight risks or mishap potential with implementation of the Proposed Action.

The Proposed Action is expected to have minor impacts on recreation by reducing the number of weekend days Moody AFB and Grand Bay Range are open to the public for hunting. To mitigate the impact on hunting activities, the proposed CAU would coordinate with the Georgia Department of Natural Resources to notify them in advance regarding the weekends the range would be utilized for training activities and, therefore, unavailable for hunting. However, as specified in the License Agreement between the Georgia Department of Natural Resources and Moody AFB concerning Grand Bay Range and Grand Bay Wildlife Management Area, Moody AFB has the right to restrict access to the licensed areas at any time for national security purposes or to fulfill the mission of the installation. Recreationists visiting Banks Lake National Wildlife Refuge (NWR) would potentially be impacted by nuisance noise associated with the slightly increased number of A/OA-10s passing overhead en route to the Grand Bay Range and the introduction of overflights occurring on the weekends in addition to weekdays. In addition, there would be minor impacts from the slightly increased/OA-10 overflight of the Okefenokee NWR and Wilderness, including impacts of the intrusion of the sight and sound of aircraft to the solitude and primitive characteristics of wilderness areas. Stephen C. Foster Georgia State Park is located at western entrance/non-wilderness portion of this refuge. Overall, the Proposed Action is expected to have minor impacts on recreation opportunities and experiences at Moody AFB and Grand Bay Range, and on recreation experience at Banks Lake NWR and Okefenokee NWR and Wilderness.

Therefore, the Proposed Action is expected to have minor impacts on recreation opportunities (i.e., weekend use) and experience (i.e., increased nuisance noise from transitory A/AO-10 aircraft) at Moody AFB and Grand Bay Range, and slight increased impacts on recreation experience at Banks Lake NWR (i.e., increased nuisance noise from transitory A/OA-10 aircraft) and Okefenokee NWR and Wilderness (including transitory wilderness intrusion impacts).

The Proposed Action would have no significant impacts on socioeconomics. The number of CAU personnel, along with their families, would result in an insignificant increase in existing two-county region of influence population and economy. The increase in personnel and dependents would not have a measurable impact and would not place noticeably adverse demands on community services, utilities, or housing. Therefore, personnel changes at Moody AFB for establishment of a CAU would result in no adverse or long-lasting socioeconomic impacts.

4.0 CONCLUSION

The attached EA was prepared and evaluated pursuant to NEPA and in accordance with CEQ regulations and 32 CFR 989, *The Environmental Impact Analysis Process*. I have concluded that the CAU beddown as proposed does not constitute a "major Federal action significantly affecting the quality of the human environment" when considered individually or cumulatively in the context of the referenced act, including both direct and indirect impacts. Therefore, no further study is required, and a Finding of No Significant Impact is thus warranted.

Kenneth E. Todorov, Colonel, USAF
Commander, 23rd Wing

2 SEP 08
Date

EXECUTIVE SUMMARY

Proposed Action

This EA is being prepared by the U.S. AFRC to evaluate the potential environmental impacts of establishing a Classic Associate Unit (CAU) to train on A/OA-10 operations, maintenance, and medical functions at Moody Air Force Base (AFB), Georgia. The establishment of a CAU at Moody AFB would include the following:

- working and training side-by-side with the host unit (i.e., supporting host unit mission taskings) using host facilities and equipment;
- training operations during the week (in conjunction with the normal active duty flying program) and one weekend per month; and
- CAU pilots conducting range-oriented training operations at Grand Bay Range and Townsend Range, Georgia.

This EA has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA); the Council on Environmental Quality (CEQ) Regulations; and 32 Code of Federal Regulations (CFR) 989, *The Environmental Impact Analysis Process*.

Purpose and Need

The purpose of the Proposed Action is to fulfill a Chief of Staff of the Air Force (CSAF) Total Force Integration (TFI) initiative to meet operational mission requirements. The TFI initiative seeks to optimize Air Force capabilities for meeting operational mission requirements by aligning equipment, missions, infrastructure, and manpower resources within the Air Force to enable a more effective and efficient use of these assets.

The AFRC CAU on A/OA-10 operations and maintenance at Moody AFB would improve A/OA-10 capabilities by providing trained Reserve Airmen ready to support Air Expeditionary Force (AEF) deployments and mobilizations when directed by higher headquarters. According to Air Force Policy Directive 90-10, dated 16 June 2006, a Classic Associate is an integration model where a Regular Air Force component unit retains principal responsibility for a weapon system or systems, which it shares with one or more reserve component units. Regular and reserve component units retain separate organizational structures and chains of command and functional integration is based on Memoranda of Understanding (MOUs). The Proposed Action is necessary to ensure, within the projected decrease of active duty force structure, that the Air Force maintains the capability to meet Combatant Commander requirements for both surge and sustained operations.

Alternatives

In compliance with NEPA and 32 CFR 989, which implements the NEPA process, the AFRC and ACC must consider reasonable alternatives to the Proposed Action. However, only those alternatives that are able to fulfill the purpose and need for the Proposed Action warrant detailed analysis. As part of the planning process, 23rd Wing (23 WG) environmental planning personnel and Headquarters AFRC systematically evaluated siting constraints, operational issues, and other factors to identify project alternatives that would satisfy the purpose and need for the Proposed Action. Reasonable criteria applied in the analysis included availability of equipment for training, availability of space, consolidation of similar functions, range safety regulations, and environmental constraints.

As a result of this analysis, no other action alternatives to the Proposed Action emerged that would satisfy the identified purpose and need and minimum selection criteria. Consequently, only the Proposed Action and the No-Action Alternative are carried forward for analysis in this EA.

Impact Conclusions

Potential impacts resulting from the Proposed Action and the No-Action Alternative were analyzed for air quality, natural resources management, airspace management/operations, transportation, utilities, noise, safety, recreation, and socioeconomics. No significant environmental impacts were identified.

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FINAL

ENVIRONMENTAL ASSESSMENT
BEDDOWN OF AIR FORCE RESERVE COMMAND CLASSIC ASSOCIATE ON A/OA-10 OPERATIONS AND MAINTENANCE AT MOODY AFB, GA

TABLE OF CONTENTS

Acronyms and Abbreviations ..... **Inside front cover**

EXECUTIVE SUMMARY **ES-1**

CHAPTER 1 PURPOSE AND NEED FOR PROPOSED ACTION **1-1**
1.1 INTRODUCTION 1-1
1.2 BACKGROUND 1-1
1.3 PURPOSE AND NEED 1-1
1.4 REGULATORY COMPLIANCE 1-3
1.4.1 Interagency and Intergovernmental Coordination for Environmental Planning (IICEP) 1-3
1.5 ORGANIZATION OF THE EA 1-3

CHAPTER 2 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES **2-1**
2.1 PROPOSED ACTION 2-1
2.1.1 CAU Personnel 2-1
2.1.2 Aircraft Operations, Training Airspace, and Ranges 2-1
2.2 ALTERNATIVES 2-5
2.2.1 Selection Criteria 2-5
2.2.2 Alternatives Considered but Not Carried Forward for Analysis 2-5
2.2.3 No-Action Alternative 2-6

CHAPTER 3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES **3-1**
3.1 AIR QUALITY 3-3
3.1.1 Affected Environment 3-5
3.1.2 Environmental Consequences 3-6
3.2 NATURAL RESOURCES MANAGEMENT 3-8
3.2.1 Affected Environment 3-8
3.2.2 Environmental Consequences 3-11
3.3 AIRSPACE MANAGEMENT/OPERATIONS 3-12
3.3.1 Airspace Management and Air Traffic Control 3-12
3.3.2 Affected Environment 3-13
3.3.3 Environmental Consequences 3-18
3.4 TRANSPORTATION 3-21
3.4.1 Affected Environment 3-21
3.4.2 Environmental Consequences 3-21
3.5 UTILITIES 3-23
3.5.1 Affected Environment 3-23
3.5.2 Environmental Consequences 3-24
3.6 NOISE 3-25
3.6.1 Affected Environment 3-26
3.6.2 Environmental Consequences 3-27
3.7 SAFETY 3-29
3.7.1 Affected Environment 3-29
3.7.2 Environmental Consequences 3-32

3.8 RECREATION 3-34
3.8.1 Affected Environment 3-34
3.8.2 Environmental Consequences 3-38
3.9 SOCIOECONOMICS 3-41
3.9.1 Affected Environment 3-41
3.9.2 Environmental Consequences 3-43

CHAPTER 4 CUMULATIVE EFFECTS AND IRREVERSIBLE/IRRETRIEVABLE COMMITMENT OF RESOURCES 4-1
4.1 CUMULATIVE EFFECTS 4-1
4.1.1 Past Actions Relevant to the Proposed Action 4-1
4.1.2 Present Military Actions 4-1
4.1.3 Reasonably Foreseeable Actions 4-2
4.2 CUMULATIVE EFFECTS ANALYSIS 4-2
4.2.1 BRAC A/OA-10 Beddown 4-2
4.2.2 Bemiss Field ULZ and AC-130 Training 4-3
4.2.3 Common Battlefield Airman Training Program 4-3
4.2.4 Expansion of Bulldog A MOA and Use of Townsend Range for Training 4-3
4.2.5 Increased Sortie Rates in SUA and Range Expenditures 4-3
4.2.6 Federal Aviation Administration (FAA) 4-3
4.3 SUMMARY OF CUMULATIVE EFFECTS 4-3
4.4 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES 4-3

CHAPTER 5 REFERENCES 5-1

CHAPTER 6 LIST OF PREPARERS 6-1

APPENDIX A: Agency Coordination and Public Comments
APPENDIX B: Air Quality
APPENDIX C: Airspace

LIST OF FIGURES

Figure **Page**

1-1 Location of Moody AFB and Grand Bay Range....1-2
2-1 A/OA-10 Airspace Associated with the Proposed Action....2-3
3-1 A/OA-10 Airspace Associated with the Proposed Action....3-15
3-2 Hunting Areas at Moody AFB....3-35
3-3 Location of Banks Lake and Okefenokee NWRs and Grand Bay WMA....3-36
3-4 ROI for Socioeconomics Associated with the Proposed Action....3-42

LIST OF TABLES

Table **Page**

Table 2-1. Proposed CAU Manpower, Moody AFB....2-1
Table 2-2. Current and Proposed Annual A/OA-10 Airfield Operations....2-2
Table 2-3. Baseline and Proposed Changes in Annual Airspace Sortie Operations....2-4
Table 3-1. Evaluation of Resources to be Carried Forward for Analysis....3-1
Table 3.1-1. National Ambient Air Quality Standards....3-3
Table 3.1-2. Moody AFB Baseline Air Quality Emissions....3-5
Table 3.1-3. Baseline Emissions Inventory for SW Georgia AQCR....3-6
Table 3.1-4. Annual Air Emissions Estimates Associated with Commuter Increases (Tons)....3-7
Table 3.3-1. A/OA-10 Flight Profiles for Airspace in the ROI....3-14
Table 3.3-2. Proposed Changes in Annual Aircraft Sorties....3-19
Table 3.3-3. Proposed Changes in Annual Airfield Operations....3-19
Table 3.3-4. Proposed Changes in Annual Airspace Sortie Operations....3-20
Table 3.6-1. SELs (dB) for A/OA-10 Aircraft....3-26
Table 3.6-2. Baseline Noise Contour Acreage in the Vicinity of Moody AFB....3-27
Table 3.6-3. Baseline Noise Levels in Affected Airspace....3-27
Table 3.7-1. Current Moody AFB Projected Class A Mishaps for A/OA-10....3-30
Table 3.8-1. Hunting Seasons at Grand Bay WMA....3-37
Table 3.9-1. Moody AFB Baseline Population....3-41

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CHAPTER 1
PURPOSE AND NEED FOR PROPOSED ACTION

1.1 INTRODUCTION

This environmental assessment (EA) is being prepared by the United States (U.S.) Air Force Reserve Command (AFRC) to evaluate the potential environmental impacts of establishing a Classic Associate Unit (CAU) to train on A/OA-10 operations, maintenance, and medical functions at Moody Air Force Base (AFB), Georgia. The establishment of a CAU at Moody AFB would include the following:

- working and training side-by-side with the host unit (i.e., supporting host unit mission taskings) using host facilities and equipment;
- conducting training operations during the week (in conjunction with the normal active duty flying program) and one weekend per month; and
- conducting range-oriented training operations at Grand Bay Range and Townsend Range, Georgia.

This EA has been prepared in accordance with the requirements of the National Environmental Policy Act (NEPA); the Council on Environmental Quality (CEQ) Regulations; and Air Force Instruction (AFI) 32-7061 as promulgated in 32 Code of Federal Regulations (CFR) 989, *The Environmental Impact Analysis Process*.

1.2 BACKGROUND

Moody AFB is located 10 miles northeast of the City of Valdosta in Lowndes and Lanier counties in south-central Georgia. Comprising approximately 11,000 acres of federally owned land (Figure 1-1), the installation includes the main base (5,039 acres), adjacent Grand Bay Range (5,874 acres), and Grassy Pond Recreational Annex (489 acres) located 25 miles southwest of the main base. Military use of this area began in early 1942 with the establishment of the Moody Field Advanced Pilot Training School. The installation was closed in 1946, but was reopened permanently in 1951 to train pilots during the Korean conflict. Moody Field gained official, permanent status as an AFB in 1954.

Moody AFB is home to the 23rd Wing (23 WG) which consists of six groups and is tasked to organize, train, and employ combat-ready pararescuemen (PJs) and A/OA-10, HH-60, and HC-130 forces totaling 6,224 personnel in 2006, including 3,812 military personnel, 428 appropriated fund civilian personnel, and 1,984 non-appropriated fund civilians, contractors, and private businesses. The 23 WG executes worldwide close air support and combat search and rescue (CSAR) operations in support of humanitarian interests, U.S. national security, and the global war on terrorism.

1.3 PURPOSE AND NEED

The purpose of the Proposed Action is to fulfill a Chief of Staff of the Air Force (CSAF) Total Force Integration (TFI) initiative to meet operational mission requirements. The TFI initiative seeks to optimize Air Force capabilities for meeting operational mission requirements by aligning equipment, missions, infrastructure, and manpower resources within the Air Force to enable a more effective and efficient use of these assets.

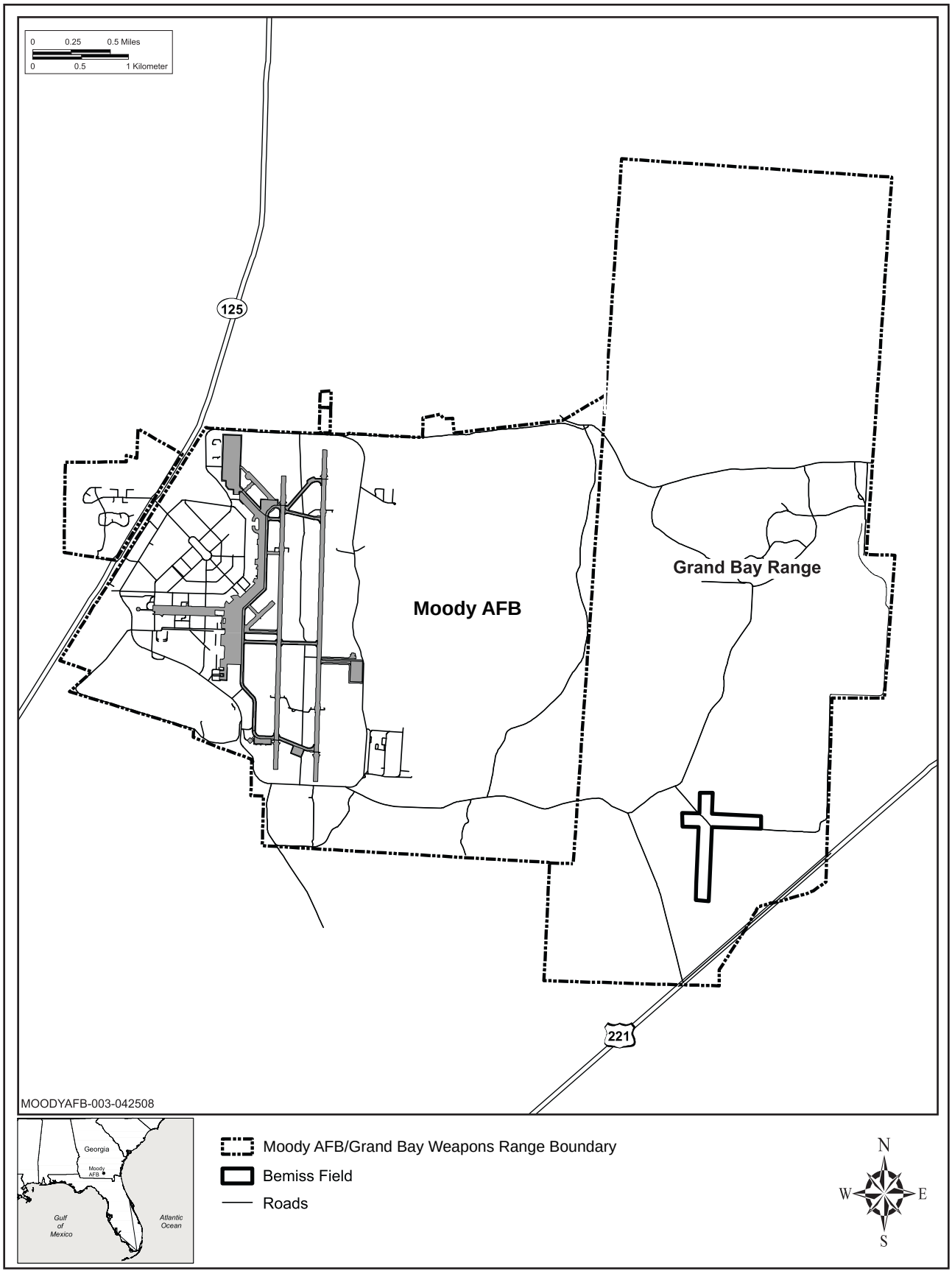

Figure 1-1

Location of Moody AFB and Grand Bay Range

The AFRC CAU on A/OA-10 operations and maintenance at Moody AFB would improve A/OA-10 capabilities by providing trained Reserve Airmen that would be ready to support Air Expeditionary Force deployments and mobilizations when directed by higher headquarters. According to Air Force Policy Directive 90-10 (16 June 2006), a Classic Associate is an integration model where a Regular Air Force component unit retains principal responsibility for a weapon system or systems, which it shares with one or more reserve component units. Regular and reserve component units retain separate organizational structures and chains of command and functional integration is based on Memoranda of Understanding (MOUs). The Proposed Action is necessary to ensure, within the projected decrease of active duty force structure, that the Air Force maintains the capability to meet Combatant Commander requirements for both surge and sustained operations.

1.4 REGULATORY COMPLIANCE

This EA has been prepared to satisfy the requirements of NEPA (42 U.S. Code 4321 et seq.), as amended; regulations established by the CEQ (40 CFR 1500-1508); and AFI 32-7061 as promulgated in 32 CFR Part 989. NEPA requires federal agencies to take into consideration the potential environmental consequences of proposed actions in their decision-making process. The intent of NEPA is to protect, restore, or enhance the environment through well-informed federal decisions. The CEQ has been established under NEPA to implement and oversee federal processes. The CEQ has issued the *Regulations for Implementing Procedural Provisions of the National Environmental Policy Act* (40 CFR 1500-1508). These regulations specify that an EA:

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

Air Force procedures for implementing NEPA and the CEQ regulations are established in 32 CFR 989, *The Environmental Impact Analysis Process*. The implementing procedures in 32 CFR 989 provide a framework on how to comply with NEPA and CEQ requirements for all applicable Air Force actions.

1.4.1 Interagency and Intergovernmental Coordination for Environmental Planning (IICEP)

NEPA and CEQ regulations require intergovernmental notifications prior to making any detailed statement of potential environmental impacts. Through the IICEP process, the Air Force notifies relevant federal, state, and local agencies and allows them sufficient time to evaluate the potential environmental impacts associated with the proposed action. Comments from these agencies are addressed and subsequently incorporated into the environmental impact analysis process pursuant to AFI 32-7060, *Interagency and Intergovernmental Coordination for Environmental Planning*, and 32 CFR 989.14(l). Appendix A contains a list of agencies contacted, copies of the IICEP letters sent to the agencies, and agency and public comments received on the Draft EA.

1.5 ORGANIZATION OF THE EA

This chapter provided background information relevant to the Proposed Action, particularly the purpose and need. Chapter 2 describes the Proposed Action and alternatives in greater detail. Chapter 3 describes baseline conditions for each of the affected resource areas and the potential environmental impacts of the Proposed Action on these resources. Chapter 4 includes an analysis of potential cumulative impacts of the Proposed Action and any irreversible or irretrievable (permanent) commitment of resources. Chapter 5 lists the references used in the preparation of this EA and Chapter 6 lists the preparers.

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CHAPTER 2
DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

2.1 PROPOSED ACTION

2.1.1 CAU Personnel

Under the Proposed Action, a CAU would be established to train on A/OA-10 operations and perform maintenance and medical functions at Moody AFB, Georgia. The proposed CAU would consist of 193 positions across five functional organizations (wing or group headquarters, medical, logistics, and two operations units) (Table 2-1). The 193 CAU positions would be comprised of approximately 54 full-time personnel (50 Air Reserve Technicians and 4 civilians), and 139 part-time Traditional Reservists distributed among Group Staff, operations, maintenance, and medical. Programming to hire the 193 CAU personnel would be available beginning Fiscal Year 2008 (FY08).

Table 2-1. Proposed CAU Manpower, Moody AFB

Function	*Number of Positions*
Group Staff	20
Operations	20
Maintenance	130
Medical	23
Total	**193**

To increase mission cohesiveness and collaboration between Active Duty and Reserve leadership on policies and requirements, Reserve personnel would be located in the same facilities and utilize the same equipment as their corresponding Active Duty 23 WG personnel to the maximum extent possible. The full-time Reserve personnel would be responsible for the overall administration and management of the Reserve forces, including designing/scheduling training activities to be carried out during Unit Training Assembly (UTA) weekends and during the 2-week long Annual Tour. Reserve personnel would be located in existing buildings at Moody AFB and no new buildings would be constructed under the Proposed Action.

2.1.2 Aircraft Operations, Training Airspace, and Ranges

Throughout this EA, three terms are used to describe aircraft operations: sortie, airfield operation, and sortie-operation. Each has a distinct meaning and commonly applies to a specific set of aircraft activities in particular airspace areas.

- A sortie consists of a single military aircraft flight from initial takeoff through final landing.
- An airfield operation represents the single movement or individual portion of a flight in the base airfield airspace environment, such as one departure or one arrival. An aircraft practicing successive approaches within the airfield environment (i.e., closed patterns) accounts for at least two operations – one approach, one departure.
- A sortie-operation is defined as the use of one airspace unit (e.g., a range or restricted airspace such as Grand Bay Range [R-3008] or military operations area [MOA]) by one aircraft. Sortie-operations apply to flight activities outside the airfield airspace environment. Each time a single aircraft conducting a sortie flies in a different airspace unit, one sortie-operation is counted for that unit.

As an example, on a typical training mission an aircraft makes an initial takeoff (one airfield operation) and flies to R-3008 (one sortie-operation at Grand Bay Range) to practice one strafing run at the range and then returns to the airfield and practices two approaches (closed patterns within the airfield environment before landing (one airfield operation). This mission generates one sortie, four airfield operations, and one sortie-operation.

2.1.2.1 Airfield Operations

Under the Proposed Action, an estimated 1,800 flight hours per year would be required to support the CAU A/OA-10 training program at Moody AFB. During one weekend per month, Reserve pilots would fly an estimated 18 sorties in conjunction with the Traditional Reservist UTA activities. The additional flight hours associated with the CAU would be accomplished using the Wing's existing 43 A/OA-10 aircraft and maintenance and medical equipment.

Table 2-2 lists the current and proposed airfield operations at Moody AFB. The end state of the Proposed Action would increase Moody AFB's annual A/OA-10 airfield operations by an estimated 1.4% from the pre-CAU beddown levels and would include the addition of weekend flying training. This estimated increase incorporates the anticipated gradual reduction of Active Duty A/OA-10 pilots that can be achieved under a TFI construct, as well as limitations on airfield operations associated with the annual aircraft flying hour program. Under normal scheduling, the CAU would typically conduct flight operations-related training on one day during the weekend training period; however, on occasion, flight operations-related training could potentially occur on both weekend days. Weekend flying would typically occur during daytime hours.

Table 2-2. Current and Proposed Annual A/OA-10 Airfield Operations

Operations	*Arrivals*		*Departures*		*Closed Patterns*		*Total*		*Total*
	Day	*Night*	*Day*	*Night*	*Day*	*Night*	*Day*	*Night*	*(Day & Night)*
Current	14,220	1,580	14,220	1,580	7,200	800	35,640	3,960	**39,600**
Proposed	14,436	1,580	14,436	1,580	7,308	800	36,180	3,960	**40,140**
Change	216	0	216	0	108	0	540	0	**540**
% Change	**1.5**	**0.0**	**1.5**	**0.0**	**1.5**	**0.0**	**1.5**	**0.0**	**1.4**

Sources: 23 WG 2008a; Air Combat Command (ACC) 2008; AFRC 2008; Moody AFB 2008d.
Notes: Day sortie = 0700-2200, Night sortie = 2200-0700.

2.1.2.2 Training Airspace and Ranges

Reserve pilot training would be dispersed among existing Moody AFB A/OA-10 airspace currently used for active duty pilot flight training (including Grand Bay Range and Townsend Range) (Figure 2-1). Use of ranges would be subject to existing operational capacities and operating instructions for these ranges, including range operational hours, procedures, restrictions, and priority for scheduling. The Proposed Action would not change range scheduling procedures and protocols for other non-training uses of range lands, such as natural resource management activities and recreation. Use of Moody AFB's existing ranges and Special Use Airspace (SUA) for training conducted under the Proposed Action would increase by an estimated 4.5% from pre-CAU beddown levels (Table 2-3). As with the estimated annual airfield operations, the end state factors in the anticipated decrease in operations due to a gradual reduction in Active Duty A/OA-10 flying operations achieved under a TFI construct, as well as limitations on airfield operations associated with the annual aircraft flying hour program.

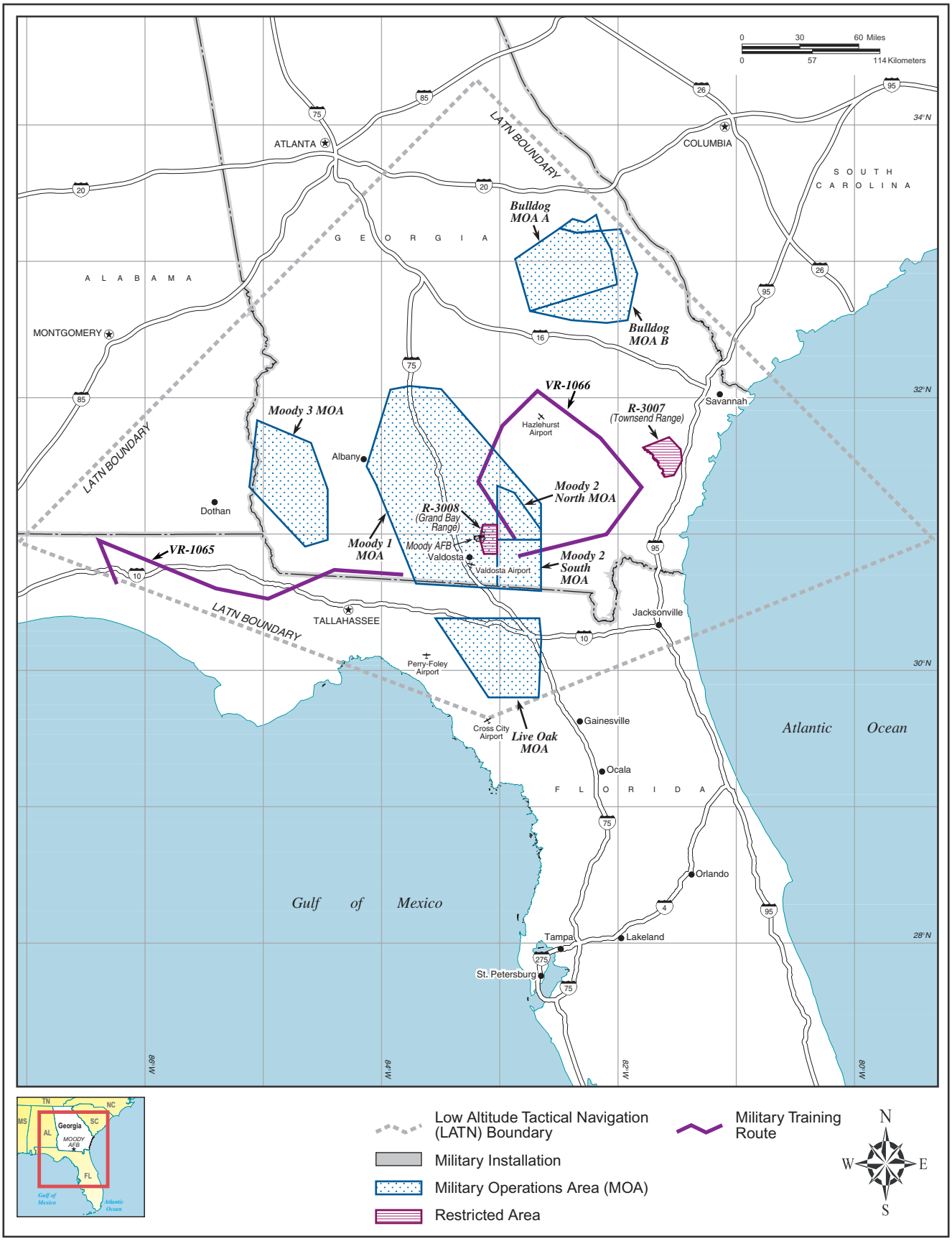

Figure 2-1

A/OA-01 Airspace Associated with the Proposed Action

Table 2-3. Baseline and Proposed Changes in Annual Airspace Sortie Operations

Airspace	*Baseline Sortie-Operations*			*Proposed Sortie-Operations*			*Change*	*% Change*
	Day	*Night*	*Total*	*Day*	*Night*	*Total*		
Moody 1 MOA	3,675	120	3,795	3,775	120	3,895	100	2.6
Moody 2N MOA	2,504	397	2,901	2,554	397	2,951	50	1.7
Moody 2S MOA	2,504	397	2,901	2,554	397	2,951	50	1.7
Moody 3 MOA	2,357	32	2,389	2,407	32	2,439	50	2.1
Live Oak MOA	592	24	616	612	24	636	20	3.2
Bulldog A MOA	2,366	21	2,387	2,416	21	2,437	50	2.1
Bulldog B MOA	1,926	27	1,953	1,976	27	2,003	50	2.5
R-3007 (Townsend Range)	4,032	732	4,764	4,032	732	4,764	0	0.0
R-3008 (Grand Bay Range)	28,522	1,118	29,640	30,682	1,118	31,800	2,160	7.3
VR-1065	30	0	30	35	0	35	5	16.6
VR-1066	25	0	25	28	0	28	3	12.0
LATN	6,500	215	6,715	6,600	215	6,815	100	1.5
Total	**55,033**	**3,083**	**58,116**	**57,671**	**3,083**	**60,754**	**2,638**	**4.5**

Sources: 23 WG 2008a; ACC 2008; AFRC 2008; Moody AFB 2008d.
Notes: LATN = Low Altitude Tactical Navigation, VR = Visual Route.

There would be no net increase in aircraft flying operations at Townsend Range. Townsend Range is currently used periodically for weekend training and there would be no net change in weekend flying at Townsend Range with the proposed CAU beddown at Moody AFB. Potential impacts to Townsend Range associated with air-to-ground training have been evaluated through separate NEPA documentation. Therefore, this EA does not assess impacts to Townsend Range.

The proposed training operations, including weekend training, would not prevent Moody AFB from continuing to comply with Air Force regulations, prior NEPA documentation, and previously agreed upon measures with the U.S. Fish and Wildlife Service (FWS) and Georgia Department of Natural Resources (DNR). These include:

- Scheduled A/OA-10 aircraft maintenance and the annual flying hour program for Moody AFB, which requires periodic airframe inspection and maintenance based on the flying hours accumulated on the airframe. While aircraft are undergoing inspection and maintenance, they are unavailable for operational training.
- Moody AFB Instruction 11-250, *Aircrew Operational Procedures/Air Traffic Control/Airfield Operations*. All aircraft using Moody AFB are subject to the provisions of these regulations and instructions.
- AFI 13-212, *Range Planning and Operations*, including local supplements for Grand Bay Range and Townsend Range, which establish procedures and protocols for all aspects of range operations and management.
- Flying training is restricted from occurring on Sundays during worship hours of local churches potentially affected by noise associated with aircraft operations at Grand Bay Range as established in the Record of Decision for the Winnersville Weapons Range EIS, dated 6 March 1986 (Air Force 1986).
- The terms and conditions stipulated in the Bemiss Field Drop Zone FWS Biological Opinion (BO), dated 17 December 1996 (FWS 1996). The BO addresses the impacts to the federally endangered eastern indigo snake and suitable habitat for this species associated with gopher tortoise burrows. Applicable terms and conditions include surveying gopher tortoise burrows for indigo snakes and gopher tortoises and conducting prescribed burning of sandhill areas in

accordance with the specified schedule. Refer to Section 3.2 for additional information on requirements set forth by the BO.

- Permissions granted to the Georgia DNR by Moody AFB for use of the Grand Bay Weapons Range as part of the Grand Bay Wildlife Management Area (WMA) through the current license agreement, which will expire in 2012. Applicable requirements on the Georgia DNR include not impacting cultural resources; protecting air, ground, and water from pollution; protecting the property from fire, vandalism, and soil erosion; development of land use planning documents; planning and conducting forest management activities; and fish and wildlife management. Refer to Section 3.2 for additional information on natural resources management.

2.2 ALTERNATIVES

2.2.1 Selection Criteria

In the initial screening of potential alternatives to the Proposed Action, AFRC took into consideration minimum selection criteria. Only those alternatives that met these minimum criteria were considered suitable for detailed analysis. The minimum selection criteria for the beddown location of a CAU included:

- located at an Air Force installation;
- availability of A/OA-10 aircraft, equipment, and communications systems for training;
- available space for 193 CAU personnel, including space for medical personnel and 600 mobility bags for Traditional Reservists in the maintenance functions;
- available existing facility space (i.e., no new construction required; no funds planned or programmed by ACC or AFRC);
- availability of community support facilities and services;
- located within an operationally feasible distance from training ranges;
- availability of training ranges on weekends;
- ability to train along side of Air Force Active Duty counterparts;
- compatibility with the Host's Master Plan and the Host's military mission;
- consolidation of similar functions;
- compliance with range safety regulations;
- consideration of environmental constraints; and
- conformance to ACC, Air Force, and Department of Defense (DoD) policies and regulations.

2.2.2 Alternatives Considered but Not Carried Forward for Analysis

In compliance with NEPA and 32 CFR 989, which implements the NEPA process, AFRC and ACC must consider reasonable alternatives to the Proposed Action. However, only those alternatives that are able to fulfill the purpose and need for the Proposed Action warrant detailed analysis. As part of the planning process, 23 WG environmental planning personnel and Headquarters AFRC systematically evaluated siting constraints, operational issues, and other selection criteria, as discussed above, to identify project alternatives that would satisfy the purpose and need for the Proposed Action.

One action alternative was initially considered. This alternative would involve leasing training space from a facility other than an Air Force installation. This alternative was deemed infeasible because it did not meet the minimum selection criteria identified above. Specifically, Reserve personnel would be required to simulate many training scenarios due to the lack of aircraft, equipment, communication systems, and security procedures unique to an Air Force installation. Reserve personnel would not have the opportunity

to train alongside Active Duty counterparts to create functional cohesiveness. These conditions would degrade Reserve training effectiveness, and would reduce operational effectiveness when Reserve personnel are activated for real-world military taskings. Additionally, this alternative does not satisfy the purpose and need to increase TFI. Therefore, this alternative was removed from further consideration and will not be carried forward for analysis in this EA.

No other action alternatives to the Proposed Action emerged that would satisfy the identified purpose and need and minimum selection criteria. Consequently, only the Proposed Action and the No-Action Alternative are carried forward for analysis in this EA.

2.2.3 No-Action Alternative

Under the No-Action Alternative, a CAU would not be established at Moody AFB. This alternative does not satisfy the CSAF's TFI initiative to optimize Air Force capabilities for meeting operational mission requirements nor does it support the CSAF's directive to establish a CAU at Moody AFB. Nonetheless, CEQ guidelines stipulate that the No-Action Alternative be analyzed to assess any environmental consequences that may occur if the Proposed Action is not implemented. Therefore, this alternative has been carried forward for analysis in this EA.

CHAPTER 3
AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This chapter describes the existing environment for each of the resources potentially affected by the Proposed Action described in Chapter 2. Information presented in this chapter represents the environmental baseline against which the Proposed Action has been compared to identify potential impacts that may result. A region of influence (ROI) has been identified for each resource and is the geographic area in which potential environmental effects to that resource would be most likely to occur.

In compliance with NEPA and CEQ regulations, as well as Air Force procedures for implementing NEPA, the description of the affected environment focuses only on those resources potentially subject to impacts. In addition, the level of analysis should be commensurate with the anticipated level of environmental impact. Table 3-1 lists the natural and human environmental resources potentially subject to impacts from implementation of the Proposed Action or the No-Action Alternative. Several resources that are generally evaluated in the preparation of an EA were not evaluated in this EA because it was determined that implementation of the Proposed Action would be unlikely to have any effect on these resources. Accordingly, the discussion of the affected environment (and associated environmental impact analyses) focuses on air quality, natural resources management, airspace management/operations, transportation, utilities, noise, safety, recreation, and socioeconomics. The reasons why the other resources are not analyzed in detail in this EA are provided below.

Table 3-1. Evaluation of Resources to be Carried Forward for Analysis

Resource	*Potentially Affected & Analyzed in Detail*
Soil Resources	No
Water Resources	No
Biological Resources	No
Land Use	No
Hazardous Materials and Wastes	No
Visual Resources	No
Cultural Resources	No
Environmental Justice	No
Protection of Children	No
Air Quality	Yes
Natural Resources Management	Yes
Airspace Management/Operations	Yes
Transportation	Yes
Utilities	Yes
Noise	Yes
Safety	Yes
Recreation	Yes
Socioeconomics	Yes

Soil Resources. Implementation of the Proposed Action would not measurably impact soil resources as no construction would occur at Moody AFB or Grand Bay Range. In addition, the only ground-disturbing activities would occur when firing munitions at existing designated target areas on an established range. Grand Bay Range has been previously assessed for munitions impacts. Therefore, this resource has not been carried forward for detailed analysis in this EA.

Water Resources. Implementation of the Proposed Action would not impact water resources as no construction would occur at Moody AFB or Grand Bay Range. In addition, the only ground-disturbing activities would occur when firing munitions at designated existing targets on an established range. Grand Bay Range has been previously assessed for water quality in relation to munitions impacts. Therefore, this resource has not been carried forward for detailed analysis in this EA.

Biological Resources. Implementation of the Proposed Action would not impact biological resources. The ongoing use of Moody AFB and Grand Bay Range have previously been assessed for impacts to biological resources. Training currently is conducted during the week and under the Proposed Action training operations would be expanded to include one weekend per month; therefore, this resource has not been carried forward for further analysis in this EA.

Land Use. The Proposed Action would be in accordance with established land use development guidelines addressing safety, functionality, and environmental protection, and the Proposed Action would be fully consistent with the current military training uses of the base property. Activities associated with the Proposed Action are consistent with ongoing activities at Moody AFB, and no new construction is proposed with the establishment of a CAU at the base. In summary, no changes to land management or use would occur with implementation of the Proposed Action; therefore, this resource has not been considered for further detailed analysis in this EA.

Hazardous Materials and Wastes. The increase in operations associated with the Proposed Action would not result in a change in the types, amounts, or handling of hazardous materials or wastes at Moody AFB. Consequently, potential impacts associated with hazardous materials and wastes would be negligible or nonexistent with implementation of the Proposed Action.

Visual Resources. Implementation of the Proposed Action would have no impacts on the visual character or overall visual setting at Moody AFB. Proposed aircraft training operations are the same as those currently conducted at Moody AFB and Grand Bay Range. No construction activities are associated with the Proposed Action and disruption of existing viewsheds would not occur.

Cultural Resources. Implementation of the Proposed Action would not impact cultural resources as no construction would occur at Moody AFB or Grand Bay Range. In addition, the only ground-disturbing activities would occur when firing munitions at existing designated target areas on an established range. Grand Bay Range has been previously assessed for munitions impacts. Therefore, this resource has not been carried forward for detailed analysis in this EA.

Environmental Justice and Protection of Children. Potential impacts to minority and low-income populations and children are required to be addressed in accordance with Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, and EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, respectively. The implementation of the Proposed Action would not disproportionately affect these populations as concentrations of these populations are not within the vicinity of the Proposed Action. Therefore, there would be no impacts to minority and low-income populations and populations of children with implementation of the Proposed Action.

3.1 AIR QUALITY

Air quality is defined as the ambient air concentrations of specific pollutants determined by the U.S. Environmental Protection Agency (EPA) to be of concern to the health and welfare of the general public. These seven pollutants (the "criteria pollutants") include ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter < 2.5 and 10 microns in diameter ($PM_{2.5}$ and PM_{10}, respectively), and lead. National Ambient Air Quality Standards (NAAQS) have been established by the EPA for these criteria pollutants. The NAAQS define the maximum concentrations of the criteria pollutants that are considered safe, with an additional adequate margin of safety, to protect human health and welfare (Table 3.1-1). Depending on the type of pollutant, these maximum concentrations may not be exceeded at any time, or may not be exceeded more than once per year (EPA 2008a). For this air quality analysis, the ROI centers on Lowndes County and Lanier County, Georgia, where Moody AFB and Grand Bay Range are located.

Table 3.1-1. National Ambient Air Quality Standards

Pollutant	*Primary Standards*		*Secondary Standards*	
	Level	*Averaging Time*	*Level*	*Averaging Time*
Carbon Monoxide	9 ppm (10 mg/m^3)	8-hour(1)	None	
	35 ppm (40 mg/m^3)	1-hour(1)	None	
Lead	1.5 µg/m^3	Quarterly Average	Same as Primary	
Nitrogen Dioxide	0.053 ppm (100 µg/m^3)	Annual (Arithmetic Mean)	Same as Primary	
Particulate Matter (PM_{10})	150 µg/m^3	24-hour(2)	Same as Primary	
Particulate Matter ($PM_{2.5}$)	15.0 µg/m^3	Annual(3) (Arithmetic Mean)	Same as Primary	
	35 µg/m^3	24-hour(4)	Same as Primary	
Ozone	0.075 ppm	8-hour(5)	Same as Primary	
	0.08 ppm (1997 std)	8-hour(6) (Applies only in limited areas)	Same as Primary	
	0.12 ppm	1-hour(7) (Applies only in limited areas)	Same as Primary	
Sulfur Dioxide	0.03 ppm	Annual (Arithmetic Mean)	0.5 ppm (1,300 µg/m^3)	3-hour(1)
	0.14 ppm	24-hour(1)		

Source: EPA 2008a.

Notes: mg/m^3 = milligram per cubic meter; ppm = parts per million; µg/m^3 = microgram per cubic meter.

[1] Not to be exceeded more than once per year.

[2] Not to be exceeded more than once per year on average of 3 years.

[3] 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.

[4] 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).

[5] 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)

[6] (a) 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.
(b) 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.

[7] (a) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is $\leq$ 1.
(b) As of June 15, 2005 EPA revoked the 1-hour ozone standard in all areas except the 14, 8-hour ozone nonattainment Early Action Compact Areas.

Criteria Pollutants

Criteria pollutant emissions affecting air quality in a given region can be characterized as being from stationary, area, or mobile sources. Stationary sources of emissions, also known as point sources, can be identified by name and location and are typified by emissions from smokestacks. Area sources are point sources whose emissions are too small to track individually, such as a home or small office building or a diffuse stationary source, such as wildfires or agricultural tilling. Mobile sources are any kind of vehicle or equipment with a gasoline or diesel engine, an airplane, or a ship. On-road and non-road are two types of mobile sources. On-road consists of vehicles such as cars, light trucks, heavy trucks, buses, engines, and motorcycles. Non-road sources are aircraft, locomotives, diesel and gasoline boats and ships, personal watercraft, lawn and garden equipment, agricultural and construction equipment, and recreational vehicles (EPA 2008d). Air quality within a region is a function of the type and amount of pollutants emitted, size and topography of the air basin, and prevailing meteorological conditions.

Ozone. The majority of ground-level ozone (more commonly known as "smog") is formed as a result of complex photochemical reactions in the atmosphere between volatile organic compounds (VOCs), nitrogen oxides (NO_x), and oxygen. VOCs and NO_x are considered precursors to the formation of ozone, a highly reactive gas that can damage lung tissue and affect respiratory function. While ozone in the lower atmosphere is considered a damaging air pollutant, ozone in the upper atmosphere is beneficial, as it protects the earth from harmful ultraviolet radiation. However, atmospheric processes preclude ground-level ozone from reaching the upper atmosphere (EPA 2008b).

Carbon Monoxide. CO is a colorless, odorless, poisonous gas produced by the incomplete combustion of fossil fuels. Elevated levels of CO can result in harmful health effects, especially for those who are susceptible to cardiovascular disease. Side effects from exposure to elevated levels of CO include impairment to manual dexterity, learning abilities, performance of complex tasks, and visual perception (EPA 2008b).

Nitrogen Dioxide. NO_2 is a brownish, highly reactive gas produced primarily as a result of the burning of fossil fuels. NO_2 can also lead to the formation of ozone in the lower atmosphere. NO_2 can cause respiratory ailments, especially in the young and elderly, and can lead to degradations in the health of aquatic and terrestrial ecosystems (EPA 2008b).

Sulfur Dioxide. SO_2 is emitted primarily from the combustion of coal and oil by steel mills, pulp and paper mills, and from non-ferrous smelters. High concentrations of SO_2 can aggravate existing respiratory and cardiovascular diseases in asthmatics and others who suffer from emphysema or bronchitis. SO_2 also contributes to acid rain, which can in turn lead to the acidification of lakes and streams (EPA 2008b).

Particulate Matter. $PM_{2.5}$ are referred to as fine particles and are believed to pose significant health risks as they can lodge deeply into the lungs. Studies have linked increased exposure to $PM_{2.5}$ to respiratory and cardiovascular disease as well as premature death. Sources of $PM_{2.5}$ include combustion activities such as motor vehicles, power plants, and wood burning. PM_{10} are referred to as coarse particles. PM_{10} are typically comprised of dust, ash, soot, smoke, or liquid droplets emitted into the air. Fires, unpaved roads, construction activities, and natural sources (wind and volcanic eruptions) can contribute to increased PM_{10} concentrations. PM_{10} particles can be inhaled into the respiratory system, leading to the possible aggravation of lung diseases. Sources of PM_{10} include crushing or grinding operations and dust from paved or unpaved roads (EPA 2008b, c).

Lead. Typically, lead emissions are associated with large stationary industrial sources (e.g., smoke stacks). Other sources of lead may include pipes, fuel, and paint, although the use of lead in these

materials has declined dramatically in recent decades. Lead can be inhaled directly or ingested indirectly by consuming lead-contaminated food, water, or dust. Fetuses and children are most susceptible to lead poisoning, which can result in heart disease and nervous system damage (EPA 2008b).

Clean Air Act (CAA) Amendments

Through the CAA Amendments of 1990, the EPA has required each state to prepare a State Implementation Plan (SIP), which describes how each state will achieve compliance with the NAAQS. The SIP is a compilation of goals, strategies, schedules, and enforcement actions that will help lead a state into compliance with the NAAQS. Areas not in compliance with the NAAQS can be declared nonattainment areas by the EPA, or the appropriate state or local agency. Areas in compliance with the NAAQS are defined as being in attainment. Where insufficient air quality monitoring data exist to determine attainment status for an area, the region is designated unclassified. The criteria for nonattainment status varies by pollutant: 1) an area is in nonattainment for ozone if the NAAQS have been exceeded more than three discontinuous times in 3 years; and 2) an area is in nonattainment for any other pollutant if the NAAQS have been exceeded more than once per year.

The CAA Section 176(c), General Conformity, established certain statutory requirements for federal agencies with proposed activities to demonstrate conformity with the SIP for attainment of the NAAQS. In 1993, the EPA issued the final rules for determining air quality conformity. Under these rules, certain actions are exempted from conformity determinations, while others are presumed to be in conformity if total project emissions are below *de minimis* levels established under 40 CFR Section 93.153. Total project emissions include both direct and indirect emissions that can be controlled by a federal agency. Any new project that may lead to nonconformance or contribute to a violation of the NAAQS requires a conformity analysis before initiating the action. The Air Force has published its own guidance, the Air Force Conformity Guide (Air Force 2003), to implement the conformity requirement. The general conformity requirements apply only to non-attainment and maintenance areas.

3.1.1 Affected Environment

Moody AFB and Grand Bay Range are located in the Southwest (SW) Georgia Air Quality Control Region (AQCR). As defined in 40 CFR 81.238, SW Georgia AQCR encompasses Lowndes County and Lanier County, Georgia; Moody AFB and Grand Bay Range occur within both Lowndes and Lanier counties. Moody AFB baseline emissions for criteria pollutants are presented in Table 3.1-2. SW Georgia AQCR emissions were obtained from the EPA's 2002 National Emissions Inventory, which are presented in Table 3.1-3. The SW Georgia AQCR data include emissions data from point sources, area sources, and mobile sources (Moody AFB 2006a).

Table 3.1-2. Moody AFB Baseline Air Quality Emissions

Source Category	*Emissions (tons/year)*				
	CO	*NO_x*	*SO_x*	*VOC*	*PM_{10}*
Aircraft and AGE	420.8	636.8	48.3	106.3	72.2
Stationary Sources	85.4	86.8	7.0	32.3	10.5
Personal Vehicle Use	122.0	12.1	<0.1	18.2	0.5
Vehicle Operations	75.5	64.4	<0.1	11.6	4.8
Total	703.7	800.1	55.5	168.4	88.0

Sources: Moody AFB 2006a, 2007a.

Table 3.1-3. Baseline Emissions Inventory for SW Georgia AQCR

Source Category	*Emissions (tons/year)*				
	CO	*NO_x*	*SO_2*	*VOC*	*PM_{10}*
Area Source	12,900	2,707	4,624	20,224	177,541
Non-Road Source	47,935	8,402	753	6,412	739
On-Road	240,709	28,333	1,037	20,493	713
Point Source	7,312	7,803	14,719	4,556	4,189
Total	308,587	47,224	21,133	51,685	183,185

Source: Moody AFB 2006a.

The SW Georgia AQCR is in attainment of the NAAQS for all seven criteria pollutants (EPA 2007a) and is therefore not subject to the general conformity requirements of the CAA. Air quality issues in the AQCR fall under the jurisdiction of the Georgia DNR. At Moody AFB, mobile sources such as aircraft and motor vehicle operations represent the largest sources of air pollutant emissions.

3.1.2 Environmental Consequences

Air emissions resulting from the Proposed Action and the No-Action Alternative were evaluated in accordance with federal, state, and local air pollution standards and regulations. Air quality impacts from a proposed activity or action would be significant if they:

- increase ambient air pollution concentrations above any NAAQS;
- contribute to an existing violation of any NAAQS;
- interfere with or delay timely attainment of NAAQS; or
- impair visibility within any federally-mandated federal Class I area.

3.1.2.1 Proposed Action

Although slight increases in sorties would occur under the Proposed Action, air emissions would not increase notably given that the annual aircraft flying hour program limits the accumulation of flying hours on the airframe (see Section 2.1.2.2). Therefore, potential for change in emissions from aircraft operations were not calculated. However, an increase in ambient criteria pollutant emission levels due to an increase in the number of installation personnel commuting to and from the base was calculated as part of the air quality analysis. Calculations prepared for the analysis can be found in Appendix B. The emissions increase in personnel commutes associated with Proposed Action was evaluated using EPA's Mobile 6.2 transportation model (EPA 2003). Data inputs for both winter and summer commutes were evaluated and an average taken to produce criteria pollutant emission factors for annual emission values.

Based on information provided by AFRC, mobile source air emission calculations were performed using the following assumptions:

- 54 full-time and 139 part-time additional personnel would be employed at Moody AFB as a direct result of the Proposed Action; and
- the commute distance was estimated to be, on average, 10 miles each way.

Table 3.1-4 presents the estimated annual criteria pollutant emissions that would be generated as a result of implementation of the Proposed Action and compares the percent increase to the 2001 regional baseline of highway vehicle emissions for Lowndes County (where the City of Valdosta is located). The standard unit of measure for describing existing and proposed air emissions is tons of pollutant per year. As seen in Table 3.1-4, mobile source emissions from the increased number of commuters would be negligible.

Table 3.1-4. Annual Air Emissions Estimates Associated with Commuter Increases (Tons)

	VOCs	*CO*	*NO_x*	*SO_x*	*PM_{10}*	*$PM_{2.5}$*
Full-time commuters	0.23	3.59	0.18	0.00	0.01	0.01
Part-time commuters	0.05	0.74	0.04	0.00	0.00	0.00
Totals	**0.28**	**4.33**	**0.22**	**0.0**	**0.01**	**0.01**
Regional Mobile Source Baseline Emissions*	3,232	41,559	5,230	191	143	108
% Increase of Baseline due to Commuter Increase	<0.01	0.01	<0.01	0.0	<0.01	<0.01

Sources: *EPA 2001.

3.1.2.2 No-Action Alternative

Under the No-Action Alternative, a CAU would not be established at Moody AFB. Therefore, no increase in personnel or aircraft operations would occur and baseline air quality conditions would remain unchanged. Therefore, there would be no impacts to regional air quality with implementation of the No-Action Alternative.

3.2 NATURAL RESOURCES MANAGEMENT

3.2.1 Affected Environment

Moody AFB's Natural Resources Management program is focused on management of ecosystems located on Moody AFB, using keystone and rare species as indicators of ecosystem health. Through natural resources management, Moody AFB maintains realistic training areas with viable populations of native plants and animals, including rare, threatened, or endangered (RTE) species. The ROI for this EA pertains to natural resources management activities at Moody AFB and Grand Bay Range. These include forest management, wildland fire management, RTE species management, and fish and wildlife management (Moody AFB 2007b).

In order to effectively train airmen, whether for ground or air combat, a diversity of realistic training areas are required by the Air Force. At Moody AFB, upland forests are managed to maintain a mosaic of training areas, from forests with a low basal area with wide spacing of trees and little midstory to early successional areas planted with native vegetation. Wetland areas are managed to ensure accessibility, and roads and trails are sited on suitable soils through these areas to minimize degradation as a result of training activities. The Grand Bay Range impact area and Moody AFB airfield are managed to provide a bahia grass (*Paspalum notatum*) monoculture to minimize the potential for wildlife interactions with aircraft. Areas surrounding the airfield and the range are managed to provide aircrews the ability to fly over a variety of ecosystems, from forested ecosystems to open water (Moody AFB 2007b).

3.2.1.1 Forest Management

Timber management activities are primarily for the support of the military mission and are designed to develop and maintain realistic training areas. In addition to managing training areas, timber management enables Moody AFB to restore native ecosystems and enhance RTE species habitat (Moody AFB 2008e). Forest management activities include timber harvesting, timber thinning, and establishment of young tree stands.

Timber management is typically conducted on unimproved grounds throughout the installation and commercial timber management is primarily restricted to upland pine forests. Of the 10,968 acres under the control of Moody AFB, a total of 7,469 acres (68%) are forested and are under some form of management. Of these forested stands, 2,610 acres (35%) are considered upland forests, either pine or mixed pine/hardwood, with the remaining 4,859 acres (65%) consisting of wetland forests, either pond pine (*Pinus serotina*), cypress (*Taxodium ascendens*), or black gum (*Nyssa sylvatica*) (Moody AFB 2007b).

From FY02 through FY06, timber harvested in areas on the main base and Grand Bay Range totaled 681 acres. Planned timber harvests from FY08 through FY12 include managing 408 acres of hardwood midstory to enhance military training areas and wildlife habitat. Harvesting activities take place in the fall and winter and in areas where training is not ongoing. Additionally, Moody AFB plans to conduct timber sales by harvesting 635 acres of upland pines. The sales generated from commercial timber harvesting support the operation of the timber management program (Moody AFB 2007b).

3.2.1.2 Wildland Fire Management

The wildland fire management program involves both prescribed burning and the control of wildfires. In accordance with AFI 32-7064, a wildland fire operational plan has been developed and implemented in cooperation with various on-base and off-base organizations, including the Moody AFB Fire Department, Airfield Management, Public Affairs, Grand Bay Range, Georgia DNR, Georgia Forestry Commission,

and the partners in the Grand Bay-Banks Lake Council (Moody AFB 2007b). The plan includes information on reduction of fire hazards, monitoring and reporting of wildfires, equipment and personnel capabilities, responsibilities, wildfire response and control, general suppression techniques, and a wildland fire call list.

According to the Wildland Fire Plan, a prescribed fire will be applied to topkill small hardwoods that encroach into pine-dominant stands, to reduce excessive fuel loads in pine and mixed pine-hardwood stands, to prepare sites for planting and marking timber, and to maintain and improve forest communities that are fire-dependent. Additionally, prescribed fire is applied for the benefit of all wildlife species that utilize fire-dependent communities, including the gopher tortoise and indigo snake (Moody AFB 2008a).

Prescribed burn plans, which consist of individual burn prescriptions, are prepared annually and routed through installation organizations for coordination with their planned activities. The prescribed burn plans identify the location, acreage, reason for burning, the preferred season of burn based on habitat condition, crew and equipment needed, instructions for firebreaks and firing, smoke sensitive areas, and safety precautions (Moody AFB 2007b).

Prescribed burning on Moody AFB is managed by 23 WG Environmental Flight with the use of trained volunteers and Georgia DNR personnel. Upland forest stands are burned on a 2 to 3 year rotation to meet forestry, wildlife management, and military mission goals and requirements (i.e., fuel reduction, ecosystem restoration, wildlife habitat improvement, disease/parasite control, improvement of military training areas, and reduction of bird hazards) (Moody AFB 2008b). Moody AFB has identified two burn seasons: dormant season (December through mid-March) and growing season (mid-March through May); however, burning is primarily restricted to the dormant season. Burning is typically conducted on Saturdays and down-days when bombing and strafing activities are not occurring on Grand Bay Range. Since prescribed burning is typically scheduled during the dormant season and on Saturdays, Moody AFB has approximately 17 days available per year for prescribed burning (Moody AFB 2008e). In addition to the limited days, burning can only be accomplished during specific weather parameters:

- surface winds of 5 to 20 miles per hour with a direction of either west, northwest, or north;
- transport winds of 9 to 20 miles per hour (south, southwest, west, northwest, or north direction);
- relatively humidity of 30 to 65%;
- temperature ranging from 33 to 78 degrees Fahrenheit; and
- maximum mixing height of 1,700 feet (ft) (Moody AFB 2008e).

An average of 1,000 to 1,200 acres is selected for burning each year. However, the actual acreage planned for burning varies because of size differences between burn units. Actual implemented burns rarely reach the planned acreage because of constraints related to weather conditions, manpower, and military mission requirements. Prescribed burning for the period FY08 toFY12 is planned to be 800 to 1,000 acres per year in support of RTE species management. Airfield burning consists of 300 acres annually for fire management. Prescribed burning of Moody Bay and Rat Bay totals 1,900 acres for FY08 and supports ecosystem management projects (Moody AFB 2007b).

3.2.1.3 RTE Species Management

Installation-wide baseline surveys conducted on RTE species established that there are 27 RTE species located on Moody AFB. Of these 27 species, 3 are federally listed as either threatened or endangered (wood stork [*Mycteria americana*], American alligator [*Alligator mississippiensis*], and eastern indigo snake [*Drymarchon corais couperi*]) and 4 are state listed as threatened or endangered (round-tailed muskrat [*Neofiber alleni*], alligator snapping turtle [*Macroclemys temminckii*], gopher tortoise [*Gopherus*

polyphemus], and bald eagle [*Haliaeetus leucocephalus*]). The remaining 20 RTE species are state listed as unusual or rare and/or have some natural heritage status recognized by Georgia DNR. Active management activities are only conducted for the eastern indigo snake, gopher tortoise, and bald eagle because these species are most likely to be affected by the military mission. Additional surveys are required periodically to ensure that Moody AFB is in compliance with the Endangered Species Act (Moody AFB 2007b).

Direct management of RTE species at Moody AFB is primarily directed towards the enhancement and maintenance of gopher tortoise habitat. Gopher tortoises are recognized as a keystone species; that is, they are animals whose presence is required for the continued existence of other species. In the case of the gopher tortoise, the burrows created by the tortoise serve as habitat for more than 200 other animals, most notably the eastern indigo snake. Since gopher tortoises and their habitat are more easily identifiable than eastern indigo snakes and since these species are inextricably linked, it is assumed that management activities directed towards the improvement and enhancement of gopher tortoise habitat benefit the eastern indigo snake and other RTE species commonly found in this habitat type (Moody AFB 2007b).

Since both the gopher tortoise and indigo snake are mostly active during the spring through early fall, Moody AFB typically conducts pedestrian and vehicle surveys and monitoring of these species during that time. Monitoring of gopher tortoises includes marking, measuring, and collecting the position of each burrow via GPS; collection of activity status; collecting of samples for disease testing; capturing and marking of gopher tortoises with radio frequency identification tags; and monitoring of movements via standard radio telemetry and through the use of radio frequency identification readers placed on selected burrows in the largest gopher tortoise colonies. Approximately 15 gopher tortoises have been fitted with radio transmitters and tortoise locations are obtained 2 to 3 times weekly during the monitoring season. Data from these movement studies is used to determine home range, foraging habitat, and behavioral changes due to military training and other installation activities (Moody AFB 2007b, 2008e). Surveying is typically conducted on weekends, down-days (when Grand Bay Range is not in use), or for an occasional hour a weekday between training runs at Grand Bay Range (Moody AFB 2008e).

Limited management of the habitat for round-tailed muskrats and bald eagles is also conducted. The majority of management actions related to the other RTE species are limited to monitoring of populations and documentation of individual occurrences (Moody AFB 2007b).

3.2.1.4 Fish and Wildlife Management

Management of wildlife populations is necessary to sustain and enhance biological diversity and the viability of wildlife populations and to maximize the compatibility of wildlife and human activities. Fish and wildlife management at Moody AFB primarily focuses on the management and conservation of game fish and animals; however, the management of nongame and non-RTE species, such as neotropical migratory birds, furbearers, and predators is also included (Moody AFB 2007b).

Game management activities focus on white-tailed deer (*Odocoileus heminonus*), turkey (*Meleagris gallopavo*), and fish within Grand Bay Range. The hunting and fishing programs on the main base are managed by the 23 WG Environmental Flight. Volunteers, known as huntmasters, assist the hunting program by managing hunter access, maintaining food plots and deer stands, and checking harvested game during managed hunts (Moody AFB 2007b). Additional information on the hunting program at Moody AFB can be found in Section 3.8, Recreation.

3.2.2 Environmental Consequences

3.2.2.1 Proposed Action

The Proposed Action would reduce the number of days available for natural resources management activities. With regard to prescribed burns, natural resources personnel have approximately 17 days per year available to conduct prescribed burns (weather permitting), due to only working on Saturdays during the dormant season. Under the Proposed Action, Grand Bay Range would be used one weekend per month for training, which would reduce the number of available annual prescribed burn days from 17 to 9 days, a 47% decrease.

This decrease in range availability, in addition to weather constraints which may vary from year to year, would require additional scheduling coordination between Moody AFB natural resources management and air operations to ensure adequate access to meet the prescribed burn program. In accordance with the 1996 FWS BO for the Bemiss Field Drop Zone (FWS 1996), Moody AFB is required to conduct prescribed burns on Grand Bay Range, particularly for the gopher tortoise colonies and other sandhill habitat within the vicinity of Bemiss Field, in order to provide additional suitable habitat for gopher tortoises, and subsequently, eastern indigo snakes (FWS 1996).

Implementation of the Proposed Action has the potential to decrease the amount of time available to conduct surveys for gopher tortoise and indigo snake as required by the FWS Bemiss Field Drop Zone BO (FWS 1996). Surveying can only be conducted when the range is not in use, and currently occurs on the weekends or during the occasional break in training during the week. As with the prescribed burn program, additional coordination between natural resources management and air operations at Moody AFB would be required to ensure that Moody AFB can continue to meet the terms and conditions for endangered species surveys and habitat management as stipulated in the Bemiss Field Drop Zone BO.

Other habitat management activities (e.g., timber harvesting and silvicultural operations, such as site preparation, herbicide application, and removal of trees) to improve the quantity and quality of gopher tortoise and indigo snake habitat may be impacted by training on Saturdays. Timber harvesting provides habitat enhancement and is a part of the Wildland Fire Management Plan. Silviculture activities are time and labor intensive operations. Available time for fish and wildlife management activities, such as maintaining food plots and deer stands would also be reduced. The reduction in available time due to the change in training schedule has the potential to negatively impact these natural resources management activities.

In summary, additional coordination between Moody AFB natural resources management and aircraft operations staff would be required to ensure continued adherence to the terms and conditions of the Bemiss Field Drop Zone BO and the completion of other natural resources management activities. With this additional coordination, there would be no significant impacts to natural resources management with implementation of the Proposed Action.

3.2.2.2 No-Action Alternative

Under the No-Action Alternative, the proposed CAU beddown and associated activities would not occur. Baseline natural resources management conditions, as described in Section 3.2.1, would remain unchanged. Therefore, no significant impacts to natural resources management would occur as a result of implementation of the No-Action Alternative.

3.3 AIRSPACE MANAGEMENT/OPERATIONS

3.3.1 Airspace Management and Air Traffic Control

Airspace in the U.S. is managed by the Federal Aviation Administration (FAA) to provide for its orderly and safe use. The National Airspace System includes all airspace over the U.S. from 60,000 ft above mean sea level (MSL) down to, but not including, the ground. Over the years, the FAA has promulgated numerous regulations that divide the airspace into different classifications and provide complex rules for operating within each classification. National airspace is divided into two broad categories: controlled airspace (Classes A through E airspace) and uncontrolled airspace (Class G airspace). Within these two categories, there are six classifications that determine the flight rules, pilot qualifications, and aircraft capabilities required to operate within any section of the airspace. These classifications are broadly based on the complexity and density of aircraft movements, the nature of operations conducted within the airspace, the level of safety required, and the national and public interest. Refer to Appendix C for a depiction of the various classes of airspace discussed below.

3.3.1.1 Controlled and Uncontrolled Airspace

Class A Airspace. This class consists of all airspace from 18,000 to 60,000 ft MSL, including the airspace overlying the waters within 12 nautical miles (nm) of the coast of the contiguous 48 states and Alaska. All operations within Class A airspace must be under Instrument Flight Rules (IFR) and are under the direct control of FAA controllers. Class A airspace starts at 18,000 ft MSL and is not specifically charted. Class A airspace is dominated by commercial aircraft using routes between 18,000 and 45,000 ft MSL.

Class B Airspace. Class B airspace surrounds the nation's busiest commercial service airports. At its core, it extends from the surface up to 10,000 ft MSL. Class B airspace is charted on sectional, IFR en route (low altitude), and terminal charts. The configuration of each Class B airspace area is individually tailored and consists of a surface area with an additional two or more layers; it is designed to contain all published instrument procedures once an aircraft enters the airspace. An Air Traffic Control (ATC) clearance is required for all aircraft to operate in the area, and all aircraft that are so cleared receive separation services from air traffic controllers. Class B airspace is typically associated with major metropolitan airports such as the Atlanta Hartsfield International Airport, Georgia.

Class C Airspace. This airspace surrounds mid-size airports with a large number of commercial flight operations. It normally extends from surface to 4,000 ft above ground level (AGL) with a radius of 5 nm with an outer circle from 1,200 ft AGL with a 10-nm radius. An operating control tower serviced by a radar approach control is a key component of Class C airspace, and aircraft must maintain two-way radio communications with the local ATC entities. Class C airspace is associated with city airports such as the Tallahassee Regional Airport, Florida.

Class D Airspace. This airspace is applied to airports with operating control towers where the traffic volume does not meet Class C or Class B standards. This area usually extends from the surface to 2,500 ft AGL and has a size and shape individually tailored to the airport. All aircraft operating within Class D airspace must be in two-way radio communications with the ATC facility. The airspace in the immediate vicinity of Valdosta Regional Airport and Moody AFB, Georgia, is Class D airspace.

Class E Airspace. This airspace includes all airspace from 14,500 ft MSL up to but not including 18,000 ft MSL. Class E airspace also includes all other controlled airspace necessary for IFR operations at lower altitudes but not already classified as A, B, C, or D. This includes airspace where low-level airways (Victor Routes) and IFR transition areas are found and can be as low as 700 ft AGL. These airways

frequently intersect approach and departure paths from both military and civilian airfields. The majority of Class E airspace is located where more stringent airspace controls have not been established.

Class G Airspace. Class G airspace is uncontrolled airspace and includes all airspace not otherwise designated as A, B, C, D, or E. Operations within Class G airspace are governed by the principle of "see and avoid". Limits of uncontrolled airspace typically extend from the surface to 700 ft AGL but can extend above these altitudes to as high as 14,500 ft MSL. Air traffic controllers do not have the authority to exercise control over aircraft operations within uncontrolled airspace. Primary users of uncontrolled airspace are general aviation aircraft operating under Visual Flight Rules (VFR).

Special Use Airspace (SUA)

In addition to the broad categories and classifications of airspace, the FAA also designates certain airspace as SUA. An SUA consists of airspace within which specific activities must be confined, or where limitations are imposed on aircraft not participating in those activities. Although most SUA involves military activity, other areas involve civilian users such as the Department of Energy or the U.S. Secret Service. The FAA has designated SUAs that are listed in FAA Order 7400.8E and are also published in DoD Flight Information Publications AP/1A and AP/1B. These SUAs are also charted on IFR and VFR en route charts. SUA designations in the ROI contain Restricted Area airspace – R-3008 (Grand Bay Range).

Restricted areas contain airspace within which flight of aircraft, while not wholly prohibited, is subject to restrictions. This is designated rulemaking airspace where restrictions are placed on all non-participating aircraft. This airspace is used to contain hazardous military activities and lies within the territorial airspace of the United States. The term "hazardous" implies, but is not limited to, live firing of weapons, ordnance delivery, and/or aircraft testing. Most restricted areas have specific hours of operations, and users must have permission from the controlling agency before flight through the defined areas.

3.3.2 Affected Environment

Airspace areas associated with the Moody AFB airfield consist of those designated to serve civil and military aircraft operating to and from the base or transiting the immediate local area. Controlled airspace is designated around Moody AFB to support local airfield operations. Valdosta Radar Approach Control (RAPCON) at Moody AFB provides service to Moody AFB and 10 other airports in the region. RAPCON is responsible for directing military aircraft passing from one SUA to another, including R-3008 (Grand Bay Range), and Moody 1, 2 (North/South [N/S]) MOAs, within their controlling area and directing non-participating aircraft around, above, or beneath these SUA units. Moody ATC tower is responsible only for aircraft within the Moody AFB Class D airspace. The Class D airspace immediately surrounding the base is defined by a cylinder centered on the airfield with a radius of 7 nm and extending from the surface up to and including 2,500 ft MSL (refer to Appendix C).

Moody AFB has two active parallel runways: runway 18L/36R is 9,300 ft long by 150 ft wide, and runway 18R/36L is 8,000 ft long by 150 ft wide. Both runways are north-south oriented and support VFR and IFR operations.

3.3.2.1 ATC Operations

Policies and procedures for flight operations, ATC, and airfield operations are established in Moody AFB Instruction 11-250, *Aircrew Operational Procedures/Air Traffic Control/Airfield Operations.* All aircraft using Moody AFB are subject to the provisions of these regulations and instructions.

An airfield operation is different than a sortie in that one sortie consists of one aircraft flying an entire mission, from take-off to final landing. For example, an ATC count of one sortie may comprise two or more airfield operations, consisting of a departure, arrival, or several operations if the sortie returns and practices additional approaches in a closed pattern mode. All "tower" operations are limited to aircraft entering the Moody AFB Class D airspace.

Airfield operations will fluctuate on a daily basis. To account for this fluctuation, daily operations are based on an annual busy day using 260 operational flying days per year. For Moody AFB, this equates to approximately 226 airfield operations per day based on a baseline level of 58,800 annual airfield operations. A/OA-10 arrivals, departures, and closed patterns account for most of the baseline airfield operations in addition to the based HC-130s and HH-60s. Transient aircraft from other bases that enter Moody AFB airspace include military aircraft (fixed-wing and rotary-wing), and the arrivals and departures of civilian cargo/troop moving aircraft (B-767, B-757). Moody ATC and Valdosta RAPCON have new facilities located on Moody AFB and have easily accommodated the daily airfield operations and activities in the surrounding airspace (R-3008).

3.3.2.2 Airspace

The locations of the airspace units and ranges that encompass the ROI are shown in Figure 3-1 and detailed in Appendix C. Table 3.3-1 provides detailed flight profiles (i.e., time in airspace, speed, power settings, and altitude) for A/OA-10 operations within the airspace units associated with the Proposed Action.

Table 3.3-1. A/OA-10 Flight Profiles for Airspace in the ROI

	Operations Data			*Altitude Profile - % Sorties by Altitude (ft)*				
Airspace	*Minutes in Airspace*	*Avg. % Power*	*Avg. KIAS**	*100-499 AGL*	*500-999 AGL*	*1,000-2,999 MSL*	*3,000-4,999 MSL*	*≥5,000 MSL*
Moody 1 MOA	40	90	275	0	0	0	0	100
Moody 2N MOA	40	90	275	0	80	20	0	0
Moody 2S MOA	40	90	275	30	20	50	0	0
Moody 3 MOA	40	90	275	0	0	0	0	100
Live Oak MOA	40	90	275	0	0	0	0	100
Bulldog A MOA	30	90	275	0	15	85	0	0
Bulldog B MOA	30	90	275	0	0	0	0	100
R-3007 Townsend Range	30	90	275	0	15	0	20	65
R-3008 Grand Bay Range	45	90	275	20	50	20	5	5
VR-1065	30	90	300	70	20	10	0	0
VR-1066	30	90	300	10	85	5	0	0
LATN	45	75	225	5	85	10	0	0

Notes: *KIAS = knots indicated airspeed.

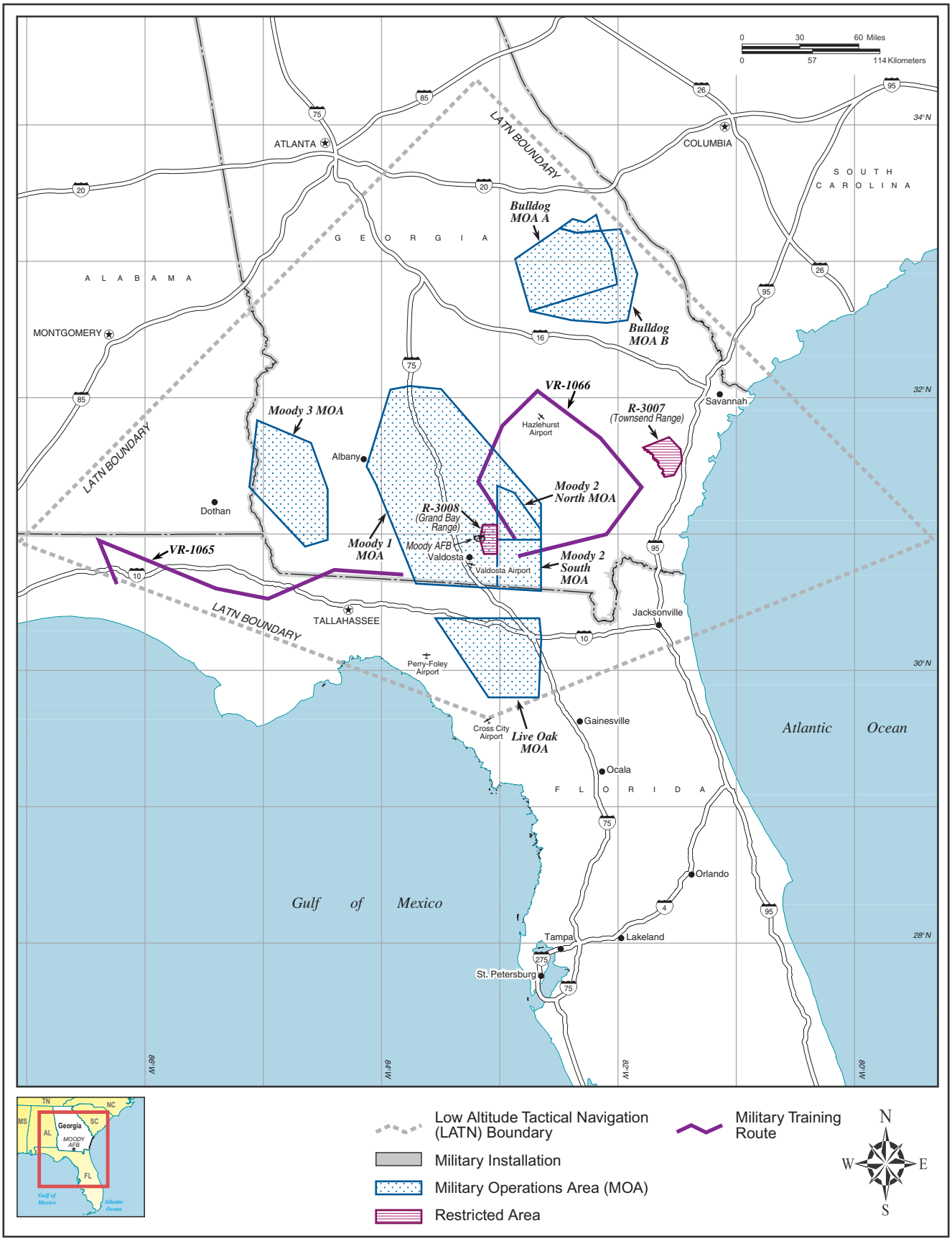

Figure 3-1

A/OA-01 Airspace Associated with the Proposed Action

Military Operations Areas (MOAs)

MOAs denote the existence of military flight operations that are not considered unsafe. Nonparticipating VFR civil and military aircraft can use the airspace within MOAs anytime, including when military training is being conducted. ATC provides separation between IFR military aircraft operating in MOAs and other IFR aircraft operating on instrument routes that may be adjacent to, overlie, or transit through a MOA. Civil aircraft operating under VFR may transit through a MOA but should exercise "see and avoid" separation procedures, as do military aircraft, while in the MOA. MOA special operating procedures are listed in Appendix C, Airspace. There are no significant impacts to current civilian or non-participating military aircraft in and surrounding the military airspace in the ROI.

Moody 1 MOA. The Moody 1 MOA covers approximately 6,164 square nm (nm^2) in south-central Georgia and a small portion of north Florida (Figure 3-1). Moody 1 MOA encompasses the airspace from 8,000 ft MSL up to but not including 18,000 ft MSL. Normal hours of use are 6:00 A.M. to 11:00 P.M., Monday through Friday. Occasionally the airspace is used during Saturday and Sunday when posted in a Notice to Airmen (NOTAM). The Jacksonville Air Route Traffic Control Center (ARTCC) is the controlling agency, with the Valdosta RAPCON at Moody AFB the using agency. There are 13 public and 11 private airports that are located beneath or adjacent to the MOA and are controlled by Moody ATC to provide separations from military airspace. Nine Military Training Routes (MTRs) underlie Moody 1 MOA airspace (Instrument Routes [IRs] 019, and 016; and Visual Routes [VRs] 094, 095, 1001, 1002, 1003, 1004, and 1066), and four federal airways or Victor Routes (V) pass through portions of the Moody 1 MOA (V5, V537, V578, and V579).

Moody 2 N/S MOAs. Moody 2 N/S MOAs, covering approximately 318 and 405 nm^2, respectively, are located beneath the southeastern corner of Moody 1 MOA (Figure 3-1). Moody 2N MOA encompasses airspace from 500 ft AGL to but not including 8,000 ft MSL, and Moody 2S MOA encompasses airspace from 100 ft AGL to but not including 8,000 ft MSL. Normal hours of use for Moody 2N/S MOAs are 6:00 A.M. to 11:00 P.M., Monday through Friday. This airspace is also occasionally used during Saturday and Sunday when posted in a NOTAM. Jacksonville ARTCC is the controlling agency and the Valdosta RAPCON at Moody AFB is the using agency. No federal airways transit this airspace and five MTRs (IR-016, VRs-1002, 1003, 1004, and 1066) pass through this airspace and require coordination with Moody AFB. Homerville Public Airport is the only airport beneath the Moody 2N MOA; there are no airports directly beneath Moody 2 S MOA.

Moody 3 MOA. Covering approximately 1,800 nm^2, Moody 3 MOA is located in southwest Georgia with the northwest edge just inside Alabama (Figure 3-1). Moody 3 MOA encompasses the airspace from 8,000 ft MSL up to but not including 18,000 ft MSL. Normal hours of operations of use are 6:00 A.M. to 11:00 P.M., Monday through Friday. Occasionally the airspace is used during Saturday and Sunday when posted in a NOTAM. The Jacksonville ARTCC is the controlling agency, and the 23 WG at Moody AFB is the scheduling and using agency. Beneath Moody 3 MOA, there are eight MTRs (IRs 017, 019, 021, 057, and 059; and VRs 1001, 1005, and 1017); seven airports (three civil and four private); and no federal airways. The 8,000 ft MSL floor allows civil aircraft access to these airports and to transit through the area at lower altitudes. Aircraft flying under IFR are directed below, above, or around the MOA when it is in use.

Live Oak MOA. Live Oak MOA is located over north-central Florida and covers an area approximately 1,300 nm^2 (Figure 3-1). Live Oak MOA encompasses the airspace from 8,000 ft up to but not including 18,000 ft MSL. Normal hours of operations are from 6:00 A.M. to 11:00 P.M., Monday through Friday. Occasionally, the airspace is used on Saturdays and Sundays when posted in a NOTAM. Jacksonville

ARTCC is the controlling agency, and the 23 WG at Moody AFB is the scheduling and using agency. Two federal airways (V537 and 579) pass through Live Oak MOA and eight MTRs underlie the airspace (IRs 016, 019, 032, and 033; and VRs 1001, 1002, 1003, and 1006). Fifteen small private and public airports are located underneath or immediately adjacent to the MOA. Military aircraft not using the airspace and civilian aircraft flying IFR are generally directed around, beneath, or above the Live Oak MOA by Jacksonville ARTCC to avoid conflicts with military training activities being conducted within the MOA.

Bulldog A and B MOAs: The Bulldog A and B MOAs are located in east-central Georgia between the cities of Macon and Augusta, and cover an area approximately 2,100 nm^2 (Figure 3-1). Bulldog A MOA encompasses the airspace from 500 ft AGL to 17,999 ft MSL, and Bulldog B MOA encompasses the airspace from 10,000 ft MSL to 17,999 ft MSL. Atlanta ARTCC is the controlling agency and the airspace is scheduled by Shaw AFB, South Carolina. There is one federal airway (V70) that passes through Bulldog B MOA and 11 airports (5 private and 6 public) that underlie or are adjacent to the Bulldog A and B MOAs. When both MOAs are active, Atlanta ARTCC directs IFR civil and military aircraft not using the MOA around, above, or below the boundaries of the MOAs.

Military Training Routes (MTRs)

Each of the MTRs identified under the Proposed Action is described below. Specific route descriptions for each MTR, including special operating procedures and avoidance areas, are contained in *DoD Flight Information Publication AP/1B* and are shown in Appendix C, Airspace. These MTRs lie beneath a number of federal airways on which civil instrument air traffic is under the control of an ATC agency. The MTRs described below are those on which pilots are required to follow VFR. The two VRs extend from a floor of 100 ft AGL to a ceiling of 1,500 ft AGL. The ceilings of these MTRs are well below the minimum assigned altitude for aircraft operating on the overlying federal airways.

Route widths vary on different MTR segments and some public or private airports may be encompassed by the route boundaries; however, FAA policy (FAA Handbook 7610.4) and military MTR flight procedures require that airports be avoided to the extent practical by at least 1,500 ft AGL vertically or 3 nm laterally. Ongoing coordination between the MTR scheduling agency and airport owners/operators helps minimize any conflicts between MTR activity and airport operations. An airport located beneath a MTR and identified as having a transition area zone indicating that airspace beginning at 700 ft AGL, has been designated on aeronautical charts to protect and contain instrument approach aircraft operations at the airport. FAA Flight Service Stations are notified by the military when individual MTRs are scheduled for use so that civil pilots can obtain their active status prior to conducting flight near a given route. Both military and civil pilots are responsible for using "see and avoid" protocols while operating along or near an MTR.

VR-1065. VR-1065 begins midway between Valdosta, Georgia and Tallahassee, Florida (Figure 3-1). The route then proceeds west, to just northeast of Eglin AFB, Florida, where it turns south and ends just east of Eglin AFB. There are eight small public airports near this MTR, three of which have instrument approach transition zones. Several overflight restrictions apply to areas beneath the track (refer to Appendix C).

VR-1066. VR-1066 is immediately adjacent to Moody 2 S MOA and the route begins at the MOA boundary (Figure 3-1). There are six small public airports near this MTR, five of which have instrument approach transition zones. Special operating procedures apply; including limiting aircraft from flying below 1,500 ft AGL for portions of the route (refer to Appendix C).

Restricted Areas

Restricted Areas (R-) denote the presence of military activities that may be unsafe and require segregation from other airspace users. When these airspace areas are active, nonparticipating military and civil aircraft are prohibited entry into these areas unless specific approval has been received from the controlling air traffic or range control agency. Restricted areas included in the Proposed Action are described below and special operating procedures can be found in Appendix C, Airspace.

R-3008(A, B, C, C[A] and D). Grand Bay Range is located in south central Georgia, north of Valdosta and directly to the east of the Moody AFB runways. The airspace associated with R-3008 encompasses an area of approximately 105 nm^2. Grand Bay Range airspace is subdivided into five main components: 'A' from surface to 10,000 ft MSL; 'B' from 100 ft AGL to 10,000 ft MSL; 'C' from 500 ft AGL to 10,000 ft MSL; 'C(A)' from surface to 1,500 ft AGL; and 'D' from 10,000 ft MSL to 23,000 ft MSL (Flight Level [FL] 230) (refer to Appendix C). The current operating hours are 6:00 A.M. to 9:00 P.M. with other times by NOTAM. Valdosta RAPCON at Moody AFB maintains control over this restricted area. The location, size, and altitude structure of R-3008 present few limitations on other aircraft in the area. When the Moody 1, 2 N, and 2 S MOAs are not in use, most of the north-south IFR traffic transits between the cities of Valdosta and Atlanta, west of R-3008. East-west IFR traffic uses corridors north of R-3008. Currently, this restricted area has little effect on the transit of civil traffic through this area.

R-3007(A, B, C, and D). The Townsend Range restricted airspace (R-3007) is located approximately 40 nm southwest of Savannah, Georgia and is comprised of four components: R-3007A (surface to but not including 13,000 ft MSL), R-3007B (1,200 ft AGL to but not including 13,000 ft MSL), R-3007C (100 ft AGL to but not including 13,000 ft MSL), and R-3007D (13,000 ft MSL to FL 250). The current operating hours for this airspace are 6:00 A.M. to 9:00 P.M., except during periods of Daylight Savings Time. All components of R-3007 are controlled by Jacksonville ARTCC. Federal airway V 578 overlies R-3007 with a 1,000 ft altitude clearance so that IFR traffic on the airways is separated from military operations within the restricted area. Since no other airways or jet routes interact with R-3007, airspace routing of civil air traffic through this region is little affected by activities within R-3007. Redesign of this airspace with the charting of the Coastal MOA Complex and reconfiguration of R-3007 alleviated most congestion. IFR traffic currently transits the area above the restricted area and/or to the east.

Moody AFB Low Altitude Tactical Navigation (LATN) Area

The Moody AFB LATN area encompasses more than 85,000 nm^2 of airspace and is defined by the coordinates N34° 20’ W83° 57’ to N30° 57’ W79° 20’ to 29° 38’ W83° 12 to N30° 57’ W87° 04’ to the beginning point. This LATN area generally covers southeastern Alabama, northern Florida, most of Georgia, and a small portion of South Carolina (Figure 3-1). The LATN area is designed so that there are few or no multiple flight patterns over any one location due to LATN area operations. Currently, A/OA-10s from Moody AFB use the LATN area during normal training flights and fly random patterns within the LATN area at altitudes from 500 ft AGL to 1,500 ft MSL.

3.3.3 Environmental Consequences

This section analyzes impacts of the Proposed Action on the structure, management, and use of the affected airspace. This evaluation focuses on whether the Proposed Action would require alteration of airspace management procedures and assesses the capability of the airspace to accommodate the proposed use.

Impacts could occur if implementation of the Proposed Action affects the movement of other air traffic in the area, ATC systems or facilities, or accident potential for mid-air collisions between military and non-

participating civilian operations. Potential impacts were assessed to determine the extent that air operations associated with the Proposed Action would change existing relationships with federal airways, transition areas, and airport-related air traffic operations. Also considered were the potential effect to IFR and VFR air traffic.

3.3.3.1 Proposed Action

Moody AFB and Vicinity

Under the Proposed Action, no changes to the airspace structure associated with Moody AFB or to the ATC procedures for its management would occur. Moody AFB aircraft would continue to follow existing approach and departure routes and procedures, and would operate within the same airspace as they do under baseline conditions. Total annual aircraft sorties at Moody AFB would increase by 216 (1.1%) with the beddown of the AFRC CAU (Table 3.3-2). Additionally, the number of annual airfield operations would increase by 540, a 1.4% increase (Table 3.3-3), with daily operations based on an annual busy day using 284 operational flying days per year. Approximately 5.5% of the current and proposed airfield operations would continue to take place at night (i.e., after 10 P.M. and before 7:00 A.M.). This slight increase in daily and annual operations would have no impacts on airspace management or availability of airspace capacity. There would be no negative impacts to the airspace management at Moody AFB.

Table 3.3-2. Proposed Changes in Annual Aircraft Sorties

Aircraft	*Baseline Sorties*	*Proposed Sorties*	*Change*	*Percent Change*
A/OA-10	15,800	16,016	+216	+1.4
Total	**20,200**	**20,416**	**+216**	**+1.1**

Sources: 23 WG 2008a; ACC 2008; AFRC 2008; Moody AFB 2008d.

Table 3.3-3. Proposed Changes in Annual Airfield Operations

	Baseline Airfield Operations		*Proposed Airfield Operations*		*Change*	*% Change*
	A/D	*CP*	*A/D*	*CP*	*A/D & CP*	*A/D & CP*
A/OA-10	31,600	8,000	32,032	8,108	540	1.4

Sources: 23 WG 2008a; ACC 2008; AFRC 2008; Moody AFB 2008d.
Notes: AD = approaches and departures, CP = closed patterns.

Airspace

Under the Proposed Action, training operations by A/OA-10 aircraft would occur in Moody 1, Moody 2N/S, and Moody 3 MOAs; Live Oak MOA; Bulldog A and B MOAs; VR-1065; VR-1066; Grand Bay Range (R-3008); Townsend Range (R-3007); and the Moody AFB LATN area. Implementation of the Proposed Action would result in a minor increase in annual sortie operations for each airspace unit except for the Townsend Range (R-3007) due to limitations from the Coastal MOA and Townsend Range priorities of other users (Table 3.3-4). Annual airspace use would increase by 2,638 sortie-operations, a 4.5% increase. With the A/OA-10 Base Realignment and Closure (BRAC) beddown at Moody AFB in 2006, Moody AFB has maximized the number of sortie operations that can be flown to Townsend Range. In order to fly at Townsend Range, the CAU would need to offset each flight they make into Townsend Range with one of the Active Duty flights, as there can be no increase to the annual sortie-operations for Townsend Range. Overall there, would be minor impacts to the existing airspace scheduling or management.

Table 3.3-4. Proposed Changes in Annual Airspace Sortie Operations

Airspace	*Baseline Sortie-Operations*			*Proposed Sortie-Operations*			*Change*	*% Change*
	Day	*Night*	*Total*	*Day*	*Night*	*Total*		
Moody 1 MOA	3,675	120	3,795	3,775	120	3,895	100	2.6
Moody 2N MOA	2,504	397	2,901	2,554	397	2,951	50	1.7
Moody 2S MOA	2,504	397	2,901	2,554	397	2,951	50	1.7
Moody 3 MOA	2,357	32	2,389	2,407	32	2,439	50	2.1
Live Oak MOA	592	24	616	612	24	636	20	3.2
Bulldog A MOA	2,366	21	2,387	2,416	21	2,437	50	2.1
Bulldog B MOA	1,926	27	1,953	1,976	27	2,003	50	2.5
R-3007	4,032	732	4,764	4,032	732	4,764	0	0.0
R-3008	28,522	1,118	29,640	30,682	1,118	31,800	2,160	7.3
VR-1065	30	0	30	35	0	35	5	16.6
VR-1066	25	0	25	28	0	28	3	12.0
LATN	6,500	215	6,715	6,600	215	6,815	100	1.5
Total	**55,033**	**3,083**	**58,116**	**57,671**	**3,083**	**60,754**	**2,638**	**4.5**

Sources: 23 WG 2008a; ACC 2008; AFRC 2008; Moody AFB 2008d.

3.3.3.2 No-Action Alternative

Under the No-Action Alternative, the proposed CAU beddown and associated activities would not occur. Baseline airspace management/operations, as described in Section 3.3.1, would remain unchanged. Therefore, no significant impacts to airspace management/operations would occur as a result of implementation of the No-Action Alternative.

3.4 TRANSPORTATION

Transportation refers to the movement of vehicles on roadway networks that provide accessibility between the local community and the installation and among the various land use areas on the base and ranges. The ROI for the Proposed Action and No-Action Alternative focuses on roadway networks on base and in the vicinity of Moody AFB, as well as those areas likely to be used for base access. It also includes parking at Moody AFB.

3.4.1 Affected Environment

Moody AFB is located approximately 10 miles northeast of the City of Valdosta, Georgia. The primary arterial (i.e., major roadway) in the area is Interstate 75 (I-75), which passes through Valdosta and runs north to Macon and Atlanta. I-75 connects with I-10 (another major interstate highway that runs east-west across the United States) approximately 52 miles south of the base. Moody AFB is connected to Valdosta State Highway 125 (Bemiss Road) and to I-75 by Highway 122. Bemiss Road consists of four lanes with left-turn bays at the major intersections, and it was recently upgraded to include new designated turn lanes into Moody AFB and Moody AFB Quiet Pines Housing Area and golf course.

Moody AFB has two access gates (South and North), both located within the cantonment area. The North Gate is on Mitchell Road and the South Gate is located on Robbins Road. Both of these gates open onto State Highway 125, where traffic is controlled by signal lights. An additional gate, the Cemetery Gate, is occasionally used during periods of high traffic and opens onto Hightower Road, which connects to State Highway 125.

Access to the Grand Bay Range from the main base is via a dirt and gravel road off South Perimeter Road, south of the munitions storage area. The range can also be accessed from the Lakeland Highway (State Highway 221) or from Shiner Pond Road.

Parking at the base is considered adequate although during mobility operations, some congestion occurs in the 7000 block of Robbins Road and at the Mobility Processing Center.

Approximately 5,755 of the 6,244 Moody AFB personnel currently at live off base (3,343 of the 3,8,12 active duty military personnel, 428 appropriated fund civilian personnel, and 1,984 non-appropriated fund civilians, contractors, and private businesses). According to the Bureau of Transportation, approximately 87% of vehicular travel is via personal vehicle (Bureau of Transportation Statistics 2001), which equates to 5,054 vehicle trips during each peak travel period at Moody AFB. The incorporation of flex time has greatly decreased traffic congestion on the base by allowing personnel to begin work from 7:30 to 8:00 A.M. and leave from 4:30 to 5:00 P.M., thus spreading out traffic during peak hours.

3.4.2 Environmental Consequences

3.4.2.1 Proposed Action

Under the Proposed Action, the base would acquire 54 additional full-time personnel, resulting in a slight increase in personnel reporting to work each day. In order to evaluate the impact to vehicular volume at Moody AFB, an assumption was made that the 54 full-time Air Reserve personnel to be added under the Proposed Action would live off base. Assuming that the majority of full-time personnel associated with the Proposed Action work standard work days, live off base, and drive individually to the installation, the Proposed Action would result in an approximate 1% increase in daily commuting traffic to and from Moody AFB. This would result in an insignificant increase in the amount of congestion that generally occurs at the gates during the morning and evening workday rush hours. A slight decrease in the availability of parking on base would occur due to the addition of personnel. However, vehicular

circulation and parking on the installation are adequate and would be able to accommodate the small addition of personnel.

Drill weekend traffic volumes would not be expected to adversely impact traffic patterns locally or on the base as the presence of Active Duty and civilian personnel on the weekends is minimal. No adverse impacts to vehicle parking or traffic circulation would be anticipated during Reservist training weeks since the 139 positions would be dispersed among four missions groups on the base. In addition, traffic volumes at the gates would not be expected to increase since it is assumed these part-time Reservists would remain on the installation; however, there may be some temporary congestion at the South Gate if personnel are required to obtain passes.

Therefore, implementation of the Proposed Action would not be expected to impact transportation on or off the base.

3.4.2.2 No-Action Alternative

Under the No-Action Alternative, the proposed CAU beddown and associated activities would not occur. Baseline transportation, as described in Section 3.4.1, would remain unchanged. Therefore, no significant impacts to transportation would occur as a result of implementation of the No-Action Alternative.

3.5 UTILITIES

Utilities at Moody AFB include electrical power, natural gas, the potable water supply systems, wastewater and storm water systems, and solid waste collection and disposal.

3.5.1 Affected Environment

Energy

Electricity to Moody AFB is provided by a Colquitt Electric Corporation through a 25-megawatt transformer. Currently, Moody AFB peak usage is during the summer when air conditioning is running, approximately 10.5 megawatts (Moody AFB 2008f).

Natural gas is provided to Moody AFB by Atlanta Gas and Light and is distributed through a dedicated pipeline at 15 pounds per square inch. Moody AFB uses a maximum of 10,000 dekatherms per month. In the event that natural gas is not available, Moody AFB has an alternative energy source – a propane air mixture, which will provide power up to 2 weeks (Moody AFB 2008f).

Potable Water

Moody AFB operates under Georgia State Drinking Water permit number 1850125, which expires on 16 September 2012. The base is permitted to pump and treat 0.75 million gallons per day (mgd) of groundwater through two nano-filtration skids. On average, Moody AFB typically consumes 0.45 mgd of potable water.

Wastewater

Moody AFB facilities and activities discharge domestic and industrial wastewater to an on-base wastewater treatment facility that was constructed during the 1940s and significantly upgraded in 1995. The facility is located adjacent to the Base Golf Course, in the northwest corner of the base. The treatment facility is an installation-owned and contractor-operated trickling filter wastewater plant. A National Pollutant Discharge Elimination System permit (GA0020001) was issued by Georgia DNR, Environmental Protection Division. The permit allows effluent discharge at an average rate of 0.75 mgd with a maximum of 1.125 mgd; this is equivalent to the capacity of the plant. Industrial wastewater comprises approximately 5% of the total flow to the wastewater treatment facility. This consists of boiler blow down and water discharged from the oil/water separators located near the aircraft and vehicle maintenance facilities and the base fire department. There are 27 lift stations in the system and approximately 131,500 ft of sanitary sewer lines. The wastewater treatment plant consists of a conventional biological treatment facility with trickle filters, clarifiers, and chlorination before discharging to Beatty Creek. The sludge that is generated during treatment is anaerobically digested, dewatered, and disposed of in a local landfill. Approximately 160 cubic yards are disposed of annually after testing for toxic materials. Additionally, there are seven septic systems in use around the installation. The base meets all treated wastewater discharge requirements (Moody AFB 2006a).

Solid Waste and Recycling

Municipal solid waste (MSW) generated at Moody AFB is currently disposed at the Pecan Row Landfill, located in Valdosta, through the base's refuse and recycling contractor, Sloane and Associates. The installation has also implemented a comprehensive recycling program to divert certain materials from the MSW stream. Recycling services are performed by the installation under the Qualified Recycling Program. Materials collected include mixed paper, metallic cans, glass, plastics, and cardboard. Recyclable materials are collected curbside and transported to the Recycling Center, where they are

sorted, baled, and stored until they can be transported to an approved recycler. During calendar year 2004, the base disposed of 1,203 tons of MSW, while diverting another 511 tons of materials for recycling (Moody AFB 2006a).

3.5.2 Environmental Consequences

3.5.2.1 Proposed Action

Under the Proposed Action, CAU personnel would occupy buildings currently in use, increasing electrical and natural gas use slightly. The base population would increase by less than 1%; therefore, the Proposed Action would not significantly impact the demand on the electrical or natural gas systems.

Based on an average 100 gallons per day of potable water use per person, it is expected that the additional personnel would increase potable water demand by approximately 19,300 gallons per day. The demand created by the CAU beddown would be well within the 0.3 mgd potable water excess.

The CAU beddown is expected to increase wastewater generation by 21,037 gallons per day when all 193 CAU personnel are at Moody AFB. The demand created by the CAU beddown would be within the available capacity of the Moody AFB wastewater treatment plant.

Solid waste generated during operation of the CAU would be disposed of at the Pecan Row Landfill, located in Valdosta, Georgia. Solid waste would be generated by personnel working at the complex. It is estimated that Proposed Action would consist of a gain of approximately 193 personnel, which would be a less than 1% increase from the existing 6,224 personnel at Moody AFB. As a result, there would be additional solid waste generated from personnel working and from operation of facilities; however, this increase would not be significant. Several types of materials would be recycled from operations and would not become solid waste: paper products, CD Rom disks, aluminum cans, food and beverage cans, glass, plastic bottles, toner cartridges, and used oil.

The EPA estimates that the average person in the U.S. generates approximately 4.54 pounds of solid waste per day (EPA 2007b). Using this EPA estimate, the increase in solid waste generated under the Proposed Action is calculated to be 876 pounds per day when all CAU personnel are at Moody AFB. Compared to the rate of solid waste disposal at Moody AFB as a whole (1,203 tons per year or 3.3 tons per day), this represents a slight increase in MSW generation; therefore, no significant impacts are expected.

Under the Proposed Action, utility use would increase slightly, but would not significantly increase the demand on electrical, natural gas, and potable water, or result in a significant increase in wastewater, MSW, and recycling at Moody AFB.

3.5.2.2 No-Action Alternative

Under the No-Action Alternative, the proposed CAU beddown and associated activities would not occur. Baseline utilities, as described in Section 3.5.1, would remain unchanged. Therefore, no significant impacts to utilities would occur as a result of implementation of the No-Action Alternative.

3.6 NOISE

Noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise annoying (Federal Interagency Committee on Noise [FICON] 1992). Human response to noise can vary according to the type and characteristic of the noise source, the distance between the noise source and the receptor, the sensitivity of the receptor, and the time of day.

Due to wide variations, noise is measured using a logarithmic scale expressed in decibels (dB). Thus, a 10-dB increase in noise corresponds to a 100% increase in the perceived sound. Under most conditions, a 5 dB change is necessary for a noise increase to be noticeable (EPA 1972). Sound measurement is further refined by using an A-weighted decibel (dBA) scale that emphasizes the range of sound frequencies that is most audible to humans (between 1,000 and 8,000 cycles per second). All sound levels analyzed in this EA are A-weighted; the term dB implies dBA unless otherwise noted.

In this EA, a single-event noise such as an overflight is described by the sound exposure level (SEL), airfield noise levels are measured in day-night average sound level (DNL), and airspace noise levels are calculated using the onset rate adjusted monthly day-night sound level (DNL_{mr}). Both DNL and DNL_{mr} noise metrics incorporate a "penalty" for nighttime events occurring between the hours of 10:00 P.M. and 7:00 A.M. to account for increased annoyance.

The ROI for the Proposed Action includes Moody AFB and vicinity; Moody 1, Moody 2N/S, Moody 3, Live Oak, and Bulldog A and B MOAs; VR-1065 and VR-1066; and R-3007 and R-3008.

Sound Exposure Level (SEL)

The SEL measurement is used to describe such noise events as overflying aircraft. The SEL is a measurement that takes into account both the intensity and the duration of a noise event. The SEL measurement is comprised of the following components: (1) a period of time when an aircraft is approaching a receptor and noise levels are increasing, (2) the instant when the aircraft is closest to the receptor and the maximum noise level is experienced, and (3) the period of time when the aircraft moves away from the receptor resulting in decreased noise levels.

Day-Night Average Sound Level (DNL)

The DNL is the energy-averaged sound level measured over a 24-hour period, with a 10-dB penalty assigned to noise events occurring between 10:00 P.M. and 7:00 A.M. DNL values are obtained by averaging the SEL values for a given 24-hour period. DNL is the preferred noise metric of the U.S. Department of Housing and Urban Development, FAA, EPA, and DoD.

Most people are exposed to sound levels of 50 to 55 dB (DNL) or higher on a daily basis. Research has indicated that about 87% of the population is not highly annoyed by outdoor sound levels below 65 dB (DNL) (Federal Interagency Committee on Urban Noise [FICUN] 1980). Therefore, the 65 dB (DNL) noise contour is typically used to help determine compatibility of military operations with local land use, particularly for land use associated with airfields. For comparison purposes, normal conversation (at a distance of 3 ft) is approximately 60 dB, loud speech is approximately 70 dB, and the sound of a train approaching a subway platform is approximately 90 dB. At approximately 120 dB, sound can be intense enough to induce pain, while at 130 dB, immediate and permanent hearing damage can result (National Park Service [NPS] 1997).

Onset Rate Adjusted Day-Night Average Sound Level

Noise from aircraft operations within Restricted Areas, MOAs, and along MTRs is measured and evaluated differently than that within an airfield environment. Aircraft operations at airfields tend to be continuous or patterned, while sortie-operations in airspace are sporadic. Noise from military overflights also differs from airfield and community noise because of the low-altitude and high-speed characteristics of military aircraft maneuvers within MTRs, MOAs, and Restricted Areas. Military jet aircraft can exhibit a rate of increase in sound level (onset rate) of up to 150 dB per second. The DNL metric is adjusted to account for the surprise, or startle, effect of the onset rate of aircraft noise with an adjustment of up to 11 dB added to the normal SEL. Because of the sporadic occurrence of aircraft overflights in MOAs and along MTRs, the number of daily operations is determined from the calendar month with the highest number of operations in each area and is designated as DNL_{mr}.

Noise Modeling

Noise contributions from aircraft operations and ground engine run-ups at Moody AFB airfield were calculated using the NOISEMAP (NMAP) computer model, the standard noise estimation methodology used for military airfields. NMAP uses the following data to develop noise profiles: aircraft types, runway utilization patterns, engine power settings, airspeeds, altitude profiles, flight track locations, number of operations per flight track, engine run-ups, and time of day.

Noise levels resulting from aircraft operating in the affected MOAs, MTRs, and Restricted areas were calculated with the Military Operating Area and Range Noise Model (MR_NMAP) (which incorporates NMAP technology). Calculations of noise levels may yield differing results for adjacent airspace elements, depending on the type, level, and frequency of training events. Resultant noise levels were based on the number of monthly sortie-operations, time-of-day, aircraft altitudes, average time in airspace, engine power settings, and airspeed.

3.6.1 Affected Environment

3.6.1.1 Moody AFB and Vicinity

Using OMEGA Version 11.3 computer model (University of Dayton Research Institute 1999), SEL values were calculated for various altitudes for baseline aircraft at Moody AFB (Table 3.6-1).

Table 3.6-1. SELs (dB) for A/OA-10 Aircraft

Distance (ft)	*A/OA-10 (dB)*
500	104.4
1,000	98.5
2,000	91.8
2,500	89.4
8,000	75.2

Notes: SEL values calculated under standard atmospheric conditions. Due to the varying power settings and airspeeds of aircraft, average power settings were used for noise analysis of aircraft operating in the airfield environment.
A/OA-10 airspeed = 200 knots indicated airspeed (KIAS).

Aircraft flying in airfield airspace generally adhere to established flight paths and overfly the same areas surrounding the airfield on a consistent basis. At Moody AFB, noise from flight operations typically occurs beneath main approach and departure corridors and in areas immediately adjacent to the parking ramps and aircraft staging areas. As aircraft take off and gain altitude, their contribution to the noise

environment drops to levels indistinguishable from existing background noise. The current Moody AFB noise model uses 260 annual flying days.

Land use guidelines identified by FICUN are used to determine compatible levels of noise exposure for various types of land use surrounding airports (FICUN 1980); 65 to 85+ dB (DNL) noise contours are frequently used to help determine compatibility of aircraft operations with local land use. Table 3.6-2 presents the baseline acreage exposed to noise levels greater than 65 dB (DNL) based on baseline yearly aircraft operations shown in Table 2-2.

Table 3.6-2. Baseline Noise Contour Acreage in the Vicinity of Moody AFB

Noise Contour (DNL)	*Baseline Area (acres)*
65 – 70 dB	932
70 – 75 dB	493
75 – 80 dB	127
80 – 85 dB	0
85+ dB	0
Total	**1,552**

Moody AFB received three noise complaints from the immediate vicinity of Moody AFB in the period from 1 July 2006 through 26 April 2008 (Moody AFB 2008c).

3.6.1.2 Airspace

Baseline noise levels calculated for potentially affected airspace units are presented in Table 3.6-3.

Table 3.6-3. Baseline Noise Levels in Affected Airspace

Airspace	*Annual Sortie-Operations*	*dB (DNL_{mr})*
Moody 1 MOA	3,795	<45
Moody 2N MOA	2,901	48
Moody 2S MOA	2,901	48
Moody 3 MOA	2,389	<45
Live Oak MOA	616	<45
Bulldog A MOA	2,387	45
Bulldog B MOA	1,953	<45
VR-1065	30	<45
VR-1066	25	<45
R-3007 (Townsend Range)	4,764	58
R-3008 (Grand Bay Range)	29,640	63

Moody AFB received 15 noise complaints from areas beneath various airspace units in the period from 1 January 2006 through 30 March 2008. Of these, six were from the LATN area and concerned HH-60, HC-130, and F-16 aircraft, and the remaining were from Grand Bay Range (Moody AFB 2008c).

3.6.2 Environmental Consequences

3.6.2.1 Proposed Action

Moody AFB and Vicinity

Under the Proposed Action, the total acreage in the vicinity of Moody AFB exposed to noise levels greater than 65 dB would not change from baseline conditions. Under the Proposed Action, the CAU beddown would not increase the number or types of aircraft or result in a mission change, but would

result in an increase from 260 to 284 annual flying days. There would be no overall increase in aircraft-associated noise at Moody AFB. Although some individuals may notice an increase in the frequency of direct overflights, it is difficult to determine noise impacts based on individual overflights due to differences in each individual's perception of the noise source.

Airspace

Under the Proposed Action, there would be an increase in sortie-operations in airspace used by Moody AFB A/OA-10s due to the CAU flying one weekend per month. Operations in four of the MOAs (Moody 1, Moody 3, Bulldog B, and Live Oak) would occur at 8,000 ft MSL or higher and noise levels associated with these are virtually indistinguishable from background noise and are at levels where less than 3% of the population become highly annoyed (Moody AFB 2006a). Overall noise levels that would result from implementation of the Proposed Action would not change from baseline conditions.

Existing overflight avoidance procedures for noise sensitive areas under the affected airspace would continue to be observed. Therefore, no significant change to the noise environment within the affected airspace would occur with implementation of the Proposed Action.

3.6.2.2 No-Action Alternative

Under the No-Action Alternative, the proposed beddown of the CAU would not occur at Moody AFB. Consequently, baseline conditions, as described in Section 3.6.1 would remain unchanged. Therefore, there would be no changes to the noise environment at Moody AFB and within the currently utilized airspace.

3.7 SAFETY

This section addresses ground, flight, explosive safety, and chaff and flare use associated with operations conducted on Moody AFB, Grand Bay Range, and Townsend Range. Ground safety considers issues associated with operations and maintenance activities that support range operations, including fire response. Flight safety considerations address aircraft mishaps and Bird/Wildlife Aircraft Strike Hazards (BASH). Explosive safety discusses the management and use of ordnance or munitions associated with training activities. Chaff and flare use is addressed as it relates to ordnance safety.

3.7.1 Affected Environment

3.7.1.1 Ground Safety

Day-to-day operations and maintenance activities conducted at Moody AFB are performed in accordance with applicable Air Force safety regulations, published Air Force Technical Orders, and standards prescribed by Air Force Occupational Safety and Health requirements. Specific safety requirements and responses to events that may occur on the range are detailed in published range operating procedures. Air Force standards also specify fire and crash emergency service requirements associated with the type of emergency, as well as crash response equipment and the number of personnel necessary to handle an aircraft mishap. These standards are based on the number and type of aircraft, type of flying missions, and size of the buildings at the installation. Moody AFB's fire and crash emergency services meet these standards. In addition, the Moody AFB fire department has mutual support agreements with nearby communities in case an exceptionally severe aircraft mishap occurs. Specific procedures are also implemented for minimizing the risk of fire from range operations. When a high fire potential has been declared, the Range Control Officer notifies 23 Operations Support Squadron/Training Flight Registrar (OSS/OSTR), which, in turn, notifies scheduled range users of the hazard and resultant operational limitations (i.e., cold spots required, no pyrotechnic materials allowed, etc.). During dry periods, specific targets and ranges with a high fire risk are continuously evaluated for the safety of planned operations. In the event of a large fire on the range, the Range Control Officer will close the range and notify all appropriate organizations. Any pilot observing a fire on or near the range complex is required to notify the Range Control Officer immediately (Moody AFB 2006a).

3.7.1.2 Flight Safety

Potential aircraft accidents may occur as a result of mid-air collisions, collisions with manmade structures or terrain, weather-related accidents, mechanical failure, pilot error, or BASH. Flight risks apply to all aircraft; they are not limited to the military. Flight safety considerations addressed in this section include aircraft mishaps and BASH.

Aircraft Mishaps

The Air Force defines four categories of aircraft mishaps: Classes A, B, and C and High Accident Potential. Class A mishaps result in loss of life, permanent total disability, a total cost in excess of $1 million, destruction of an aircraft, or damage to an aircraft beyond economical repair. Class B mishaps result in total costs of more than $200,000, but less than $1,000,000, or result in permanent partial disability, but they do not result in fatalities. Class C mishaps involve costs of more than $10,000, but less than $200,000, or a loss of worker productivity of more than 8 hours. High Accident Potential represents minor incidents not meeting any of the criteria for Classes A, B, or C.

This section focuses on Class A mishaps because of their potential to affect private property or the public. Based on historical data on mishaps at all installations and under all conditions of flight, the military

services calculate Class A mishap rates per 100,000 flying hours for each type of aircraft in the inventory. The Class A mishap rate per 100,000 flying hours, along with an estimation of the flying hours per aircraft associated with current conditions, can be used to compute a statistical projection of anticipated time between Class A mishaps. In evaluating this information, it should be emphasized that the data presented are only statistically predictive. Actual mishaps are caused by many factors, not simply the amount of flying time of the aircraft. Table 3.7-1 summarizes current and projected Class A mishaps for Moody AFB. The table shows the A/OA-10 aircraft and its current flying hour program used for flying at the base, and training airspace/ranges and the statistically predicted time between Class A mishaps.

Table 3.7-1. Current Moody AFB Projected Class A Mishaps for A/OA-10

	*Total Class A Mishap**	*Mishap Rate**	*Current Annual Flight Hours*	*Projected Years between Class A Mishaps*
A/OA-10	101	2.21	10,904	4.15

Sources: Moody AFB 2006a; Air Force 2008a.
Note: *Per 100,000 flying hours.

It is impossible to predict the precise location of an aircraft accident, should one occur. Major considerations in any accident are loss of life and damage to property. The probability of an aircraft crashing into a populated area is extremely low, but it cannot be totally discounted. Several factors are relevant in the case of Moody AFB. The region around the base is made up for the most part of rural or natural areas; pilots of aircraft are instructed to avoid direct overflight of population centers at very low altitudes; and, finally, the limited amount of time the aircraft is over any specific geographic area limits the probability that a disabled aircraft would crash into a populated area. There have been seven Class A mishaps occurring near Moody AFB/Grand Bay Range over the last 13 years. Procedures for responding to aircraft mishaps on non-Air Force property have been established. When normal, scheduled flying is in progress, Moody AFB maintains highly trained emergency response teams, which are available to respond to aircraft crashes off site. Moody AFB maintains mutual aid agreements with local fire departments that detail each party's responsibility when responding to a mishap. The base also conducts regular aircraft mishap training exercises (23 WG 2008b).

Bird-Aircraft Strike Hazard (BASH)

BASH constitutes a safety concern because of the potential for damage to aircraft or injury to aircrews or local populations if an aircraft crash should occur. From 1985 to 2006, the Air Force BASH Team documented 71,691 bird strikes. Although aircraft may encounter birds at altitudes as high as 30,000 ft MSL or higher, most birds fly close to the ground. Over 97% of reported bird strikes occur below 3,000 ft AGL. Approximately 30% of bird strikes happen in the airport environment, and almost 55% occur during low-altitude flight training (Air Force 2008b). In addition, aircraft face collision dangers from other wildlife, such as deer, during takeoff or landing.

A BASH potential exists at Moody AFB and in the vicinity due primarily to local deer populations and resident and migratory birds. In accordance with Air Force requirements, the Moody AFB Safety Office developed a BASH plan (23 WG Plan 91-202, *Bird Aircraft Strike Hazard Plan*) with inputs from other installation organizations. The fully integrated plan incorporates habitat modification with BASH dispersal techniques to minimize the presence of wildlife species on the airfield. Aircraft generally use southern Georgia and northern Florida as the primary low-level flying area. These areas have many features that attract a variety of birds, from migratory waterfowl to upland species to shorebirds. The two most hazardous types due to their large size are raptors (hawks and vultures) and migratory waterfowl.

In the immediate vicinity of Moody AFB and Grand Bay Range, bird populations are controlled through aggressive habitat management procedures. When birds congregate, various bio-acoustic and pyrotechnic dispersal techniques are employed to reduce the bird density, with physical means employed to remove deer, alligators, turtles, and tortoises from the airfield. If required, other control measures that could be used are detailed in the unit BASH Plan. The presence of birds and the size and density of flocks are monitored by aircrew and by range controllers. As the presence of birds increases, thereby creating an elevated safety risk, flight operations may be limited, modified, or even completely curtailed until the risk is reduced (Air Force 2008b).

3.7.1.3 Explosive Safety

Explosive safety quantity distance areas (Q-Ds) are established under Air Force Manual 91-201, *Explosives Safety Standards*. The Q-Ds are separation distances between explosive storage areas such as storage igloos, handling areas such as weapon loading areas, and other areas such as "hot" cargo pads. Q-Ds are based on the maximum storage capacity of each facility to prevent explosive propagation from one storage facility to another. Additionally, Q-Ds are established to provide a safety zone between the explosive storage areas and the surrounding areas. Moody AFB has developed Explosive Safety Zones and associated Q-Ds around Main Base areas where munitions are stored or handled (Moody AFB 2006a).

On Grand Bay Range, use of ordnance during training is normally limited to designated impact areas. Ordnance currently used at the range includes training and inert bombs and gun and cannon ammunition fired from aircraft and helicopters. The use of live ordnance is prohibited on Grand Bay and Townsend Ranges. The primary training munition of the A/OA-10 aircraft is 30 millimeter (mm) rounds from the Vulcan cannon; other ammunition includes 20 mm, 7.62 mm, Bomb Dummy Unit 33 (BDU-33), 2.75-inch rockets, and inert 500- and 2,000-pound bombs (MK-82 and MK-84, respectively). The predominant training bomb used on the range is the BDU-33. This is a small training bomb weighing approximately 25 pounds, composed of ferrous metals and equipped with a small spotting charge that serves as an aid for visual scoring of delivery accuracy. Range training operations are covered under AFI 13-212V1_ACCSUP1, Supplement 1, Weapons Ranges; Air National Guard Instruction 13-312, and Grand Bay Range local supplements. Supplement 1 assigns responsibility and defines operating criteria for both routine and emergency situations at Grand Bay Range. Safety standards require safeguards on weapons systems and ordnance to ensure against inadvertent releases. All munitions mounted on aircraft are equipped with mechanisms that preclude release or firing without activation of an electronic arming circuit.

In accordance with AFI 13-212, *Range Planning and Operations*, the range impact area is cleared on a regular basis. Trained Explosive Ordnance Disposal (EOD) personnel inspect all debris. If items are deemed hazardous or unknown, EOD personnel use a small charge to eliminate the danger of explosion. When a training (inert) air-to-ground weapon impacts on or near the target, it may skid, bounce, or burrow under the ground for some distance from the point of impact, coming to rest at some distance from that point. The military services have analyzed extensive historical data on ordnance and incorporated those data into a computer program called SAFE-RANGE. SAFE-RANGE considers the type of ordnance, the aircraft, the delivery profile, the target type, and other data such as the demonstrated accuracy of the aircraft's bombing and navigation system. The program then calculates an area around the target within which either effects from live ordnance will spread or the specific training or inert ordnance under consideration will come to rest. This area has dimensions in front of, behind, and on either side of the target. The results reflect (at a 95% confidence level) the geographic area that will contain 99.99% of

the specific weapon's deliveries and their effects. Operations conducted by 23 WG aircrews have been subjected to these analyses, and detailed operating procedures published by the air-to-ground ranges that support 23 WG training ensure that all safety standards are met for the type of ordnance delivered, and the associated delivery profile.

3.7.1.4 Chaff and Flare Use

Chaff and defensive flares are managed as ordnance, and use is governed by detailed operating procedures to ensure safety. Chaff and flares are authorized for use by A/OA-10 squadrons. Chaff, which is ejected from an aircraft to reflect radar signals, is small fibers of aluminum coated silica packed into approximately 4-ounce bundles. When ejected, chaff forms a brief electronic "cloud" that temporarily masks the aircraft from radar detection. Although the chaff may be ejected from the aircraft using a small pyrotechnic charge, the chaff itself is not explosive. Flares ejected from aircraft provide high-temperature heat sources that mislead heat-sensitive or heat-seeking targeting systems. The flare, essentially a pellet of magnesium, ignites upon ejection from the aircraft and burns completely within approximately 3.5 to 5 seconds, or approximately 400 ft from its release point (Air Force 1997).

Effective use of chaff and flares in combat requires frequent training in use by aircrews to master the timing of deployment and the capabilities of the devices, and by ground crews to ensure safe and efficient handling. Chaff and flare deployment in authorized airspace associated with Moody AFB is governed by a series of regulations based on safety and environmental considerations and limitations. These regulations establish procedures governing the use of chaff and flares over ranges, other government-owned and controlled lands, and nongovernment-owned or controlled areas.

3.7.2 Environmental Consequences

This section addresses potential impacts to safety from implementation of the Proposed Action. The issues that have a potential to affect safety are evaluated relative to the degree to which the activity increases or decreases safety risks to military personnel, the public, and property. Issues addressed in this section are ground safety (including fire resulting from an aircraft mishap); flight safety (including mishap and BASH potential), and explosives safety. The potential for the Proposed Action to increase these risks is assessed, as well as the Air Force's capability to manage these risks.

3.7.2.1 Proposed Action

Ground Safety

Under the Proposed Action, there would be no changes to the ground safety procedures and activities at Moody AFB and Grand Bay Range would continue to be conducted using the same processes and procedures as under current operations. All actions would be accomplished by technically qualified personnel and would be conducted in accordance with applicable Air Force safety requirements, approved technical data, and standards.

Flight Safety

There would be no change in Class A mishap rates under the Proposed Action. Although an estimated 1,800 flight hours per year would be required to support the Reserve A/OA-10 training program under the Proposed Action, these would not translate into increased annual flight hours overall at Moody AFB because (as noted in Section 2.1.2.2) the annual aircraft flying hour program limits the accumulation of flying hours on the airframe. Current safety policies and procedures are designed to ensure that the potential for aircraft mishaps is reduced to the lowest possible level. These safety policies and procedures would continue under the Proposed Action.

Explosives Safety

Under the Proposed Action, the primary training munitions of the A/OA-10 aircraft, 30 mm rounds from the Vulcan cannon, would be fired from the aircraft at Grand Bay Range. Other ammunition that would continue to be expended includes 20 mm, 7.62 mm, BDU-33s, 2.75-inch rockets, and inert 500- and 2,000-pound bombs (MK-82 and MK-84). All training bombs and munitions would be delivered to existing targets. Because the types of bombs and munitions to be used at the ranges are similar to current conditions, the Proposed Action would not be expected to prevent or significantly limit the ability of the range manager to conduct EOD and range maintenance activities. All ordnance would be handled by trained and qualified personnel in accordance with all explosive safety standards and detailed published technical data.

There would be no change to the weapon safety footprints under the Proposed Action. While the occurrence of an accidental release is not impossible, it is highly improbable. Existing procedures that address ineffective commanded release resulting in "hung" ordnance would remain in place.

Chaff and Flares

With implementation of the Proposed Action, chaff and flares would continue to be used as defensive countermeasures by CAU pilots flying A/OA-10 missions in similar proportions that currently used by Active Duty pilots. Safety regulations and procedures would continue to be utilized by maintenance and support personnel. Impacts from chaff and flare use would not measurably differ from baseline levels.

3.7.2.2 No-Action Alternative

Under the No-Action Alternative, the proposed beddown of the CAU would not occur at Moody AFB. Consequently, baseline conditions, as described in Section 3.7.1 would remain unchanged. Therefore, there would be no changes to the safety management at Moody AFB and within the currently utilized airspace.

3.8 RECREATION

Recreation refers to the use of natural resources in an outdoor setting for human enjoyment. The ROI for outdoor recreation for this EA comprises Moody AFB, including Grassy Pond Annex and Grand Bay Range. It also includes other special use land management areas underlying airspace used by Moody AFB A/OA-10s. This subsection focuses on Banks Lake National Wildlife Refuge (NWR), because of its proximity to Grand Bay Range, and on Okefenokee NWR and Wilderness given the response they provided via the agency coordination (i.e., IICEP) process for this EA (see Appendix A).

3.8.1 Affected Environment

3.8.1.1 Moody AFB

On the main complex of Moody AFB, outdoor recreational facilities include fields for baseball, softball, football, and soccer; a golf course; outdoor swimming pools; playgrounds; tennis and basketball courts; and Mission Lake on the southwest side of the taxiway. Indoor recreation consists of an indoor pool, bowling alley, and physical fitness center.

There is a 100-acre Golf Course/Driving Range Complex located west of Highway 125, near the family housing area and the wastewater treatment facility. Access to the golf course is limited to DoD personnel and guests. The golf course is used 7 days per week and is predicted to receive between 35,000 and 45,000 visitors annually (Moody AFB 2008g). In the vicinity of the golf course is Quiet Pines Lake, which provides fishing opportunities. This 3-acre water body is fed by a deep well.

Mission Lake is a 30-acre pond located in the southwest portion of the base. Mission Lake provides an easily accessible fishing area for military and civilian anglers. The lake is stocked with bluegill and largemouth bass, with occasional releases of channel catfish. The lake also supports waterfowl, seasonal migrants, and alligators, all of which provide wildlife viewing opportunities. Boating, including canoeing and kayaking, is permitted on Mission Lake. Motorized boats are limited to a 10 horsepower motor (Moody AFB 2008e).

On the main base there are 1,200 acres of unimproved lands that support hunting; these areas are concentrated around the landing strip/taxiway and between Bemiss Road and Mission Lake. Lands permitted for hunting have been divided up into eight areas; with hunting opportunities for small game, deer, and turkey (Figure 3-2). The hunting areas are used for military training during the week and the Combat Arms Training Maintenance (CATM) facility is located within Area 3, which cannot be entered when firing is occurring. For this reason, hunting is only permitted on the weekends and on down-days on main base when no military training activities, including flying, ground training, or use of the CATM Range, are occurring (Moody AFB 2008e).

3.8.1.2 Grand Bay Range

Grand Bay Range is co-managed by Georgia DNR under an Air Force License agreement for fish and wildlife management purposes. The license allows the Georgia DNR to use and occupy 5,874 acres of Moody AFB property within the Grand Bay WMA for hunting and fishing purposes (Figure 3-3) (Moody AFB 2007b; Georgia DNR 2008). An MOU between Georgia DNR and Moody AFB concerning Grand Bay Range and Grand Bay WMA establishes that Grand Bay Range may be incorporated, to the maximum extent possible within the constraints of the military mission of Moody AFB, into the Grand Bay WMA for the purposes of wildlife management and outdoor recreation by public entities (Georgia DNR 2007a). The license agreement and MOU establish the rules and regulations of the Grand Bay WMA.

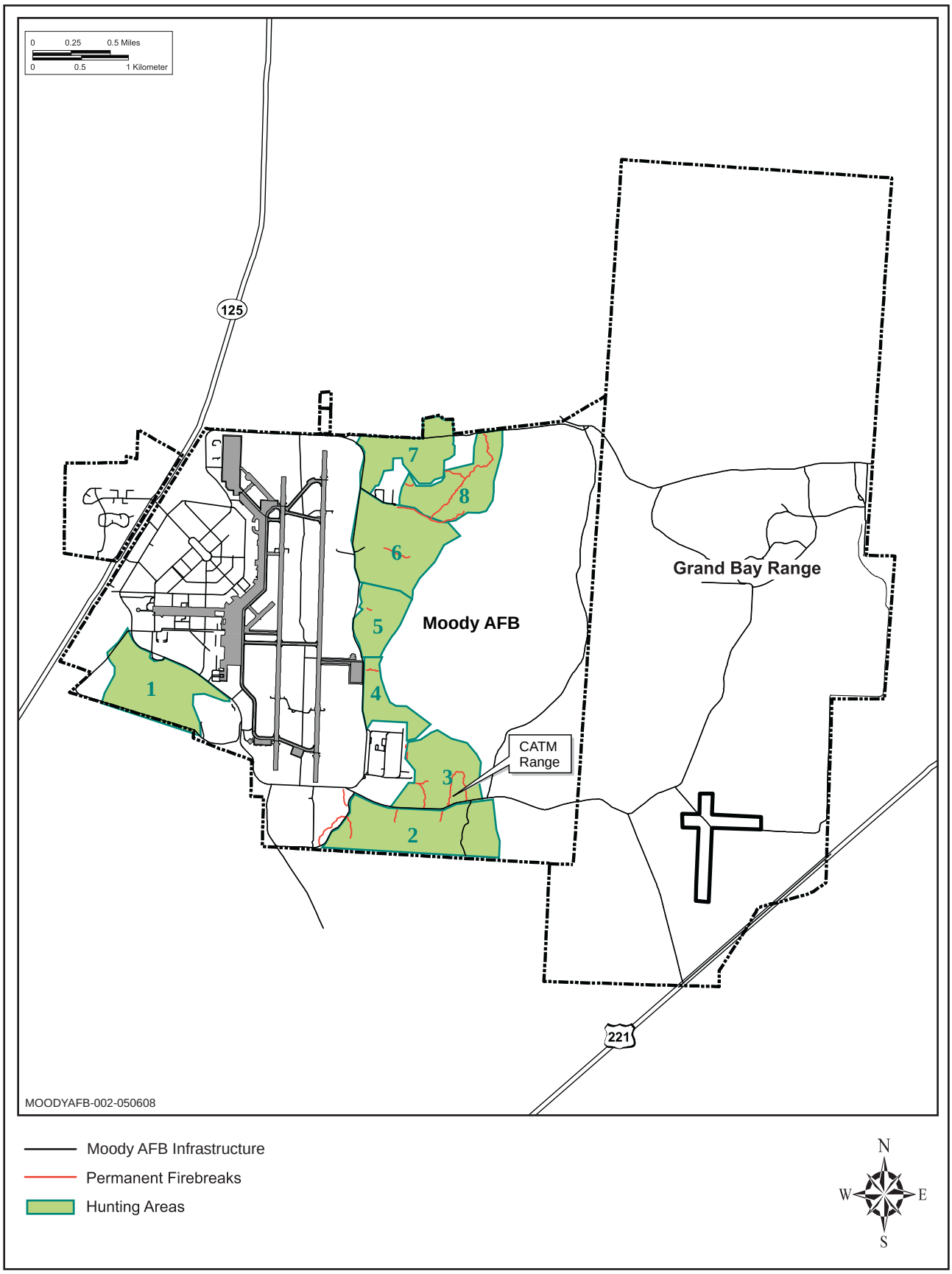

Figure 3-2
Hunting Areas at Moody AFB

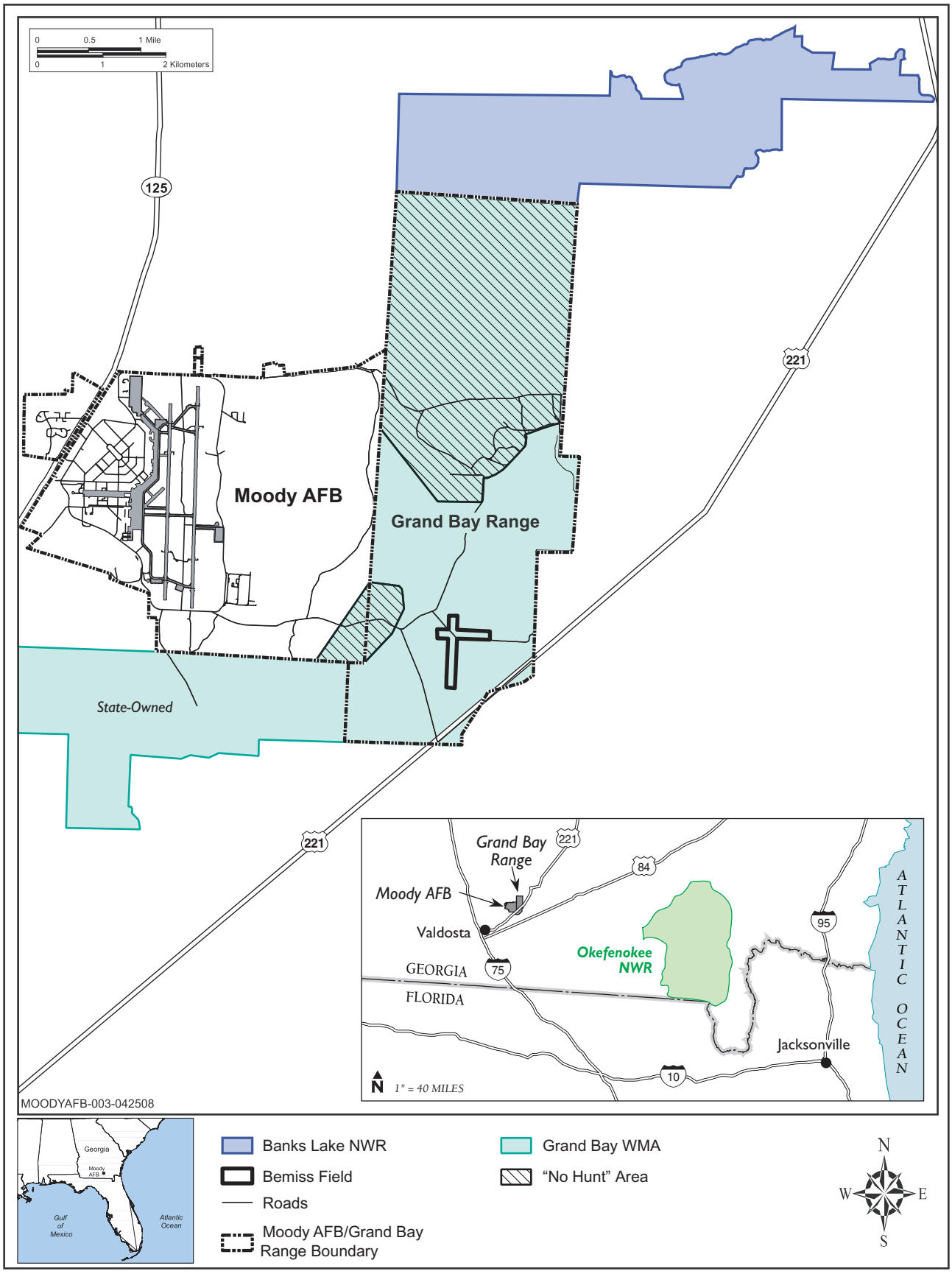

Figure 3-3

Location of Banks Lake and Okefenokee NWRs and Grand Bay WMA

Grand Bay Range is open to the general public for hunting during specified weekends, which are determined and published by the Georgia DNR in the biannual Georgia Hunting Seasons and Regulations (Georgia DNR 2007b). Hunting of deer, turkey, small game, alligators, and waterfowl is permitted at Grand Bay WMA on weekends according to seasons throughout the year (Table 3.8-1). Access is permitted to all of Grand Bay WMA, except the impact area of Grand Bay Range is restricted. The range is fenced off and marked with signs specifying where access ends. Hunters receive a map of permitted hunting areas upon check-in (Moody AFB 2008e).

Table 3.8-1. Hunting Seasons at Grand Bay WMA

Hunting	*Season (weekends only)*
Deer (Archery)	Beginning September - December
Deer (Primitive Weapons)	Mid October
Deer (Firearms)	Mid October - December
Turkey	End of March – Beginning of April
Small Game	Mid August - February
Alligators	September – beginning of October
Waterfowl	Weekend days during state season

Source: Georgia DNR 2007b.

Shiner Pond, a 65-acre impoundment on the southern fringe of Old Field Bay, which is immediately north of the range, is open for fishing and other recreational opportunities on weekends when Grand Bay Range is not being used for military training. Users must have a valid Georgia WMA Stamp or a Moody AFB Fishing License in addition to appropriate state licenses in order to access this site as specified by the license agreement with Georgia DNR (Moody AFB 2007b).

3.8.1.3 Okefenokee NWR and Wilderness

The Okefenokee NWR consists of 402,000 acres of swamp within Ware, Charlton, and Clinch counties, Georgia, and Baker County, Florida (Figure 3-3). The refuge was established by EO in 1936 and the interior 353,981 acres (88% of the refuge) was further protected and designated as a National Wilderness Area in 1974. National Wilderness Areas are subject to specific management restrictions. Human activities are restricted to non-motorized recreation, scientific research, and other non-invasive activities. In general, the law prohibits logging, mining, roads, mechanized vehicles (including bicycles), and other forms of development. The Okefenokee NWR and Wilderness is administered by the FWS. Within the swamp, 70 islands occupy approximately 25,000 acres and over 60 lakes comprise approximately 500 acres. Approximately 370,000 acres are classified as wetlands. Approximately 400,000 people visit Okefenokee NWR each year and gain access via five entrances: East Entrance, Secondary East Entrance, West Entrance, Secondary West Entrance, and North Entrance (FWS 2008a). Recreation at the Okefenokee NWR includes the Suwannee River Visitor Center, Chesser Island Homestead, boating, canoeing, biking and hiking trails, photography, hunting, and fishing (FWS 2008b). Hunting includes deer, feral hog, small game, and turkey during published hunting days within permitted areas of the Okefenokee NWR (FWS 2008c). Anglers are permitted to fish year-round and typically catch bowfin, chain pickerel, warmouth, yellow bullhead catfish, black bullhead catfish, and flier (FWS 2008d). Stephen C. Foster Georgia State Park is located at the west entrance to the refuge and includes camping areas, a boat ramp, hiking trails, interpretive center/museum, and trading post (Georgia State Parks 2008).

3.8.1.4 Banks Lake NWR

Banks Lake NWR was established in 1985 by the FWS. The refuge is administered by the Okefenokee NWR, which is located nearly 40 miles east of Banks Lake NWR (Figure 3-3). The refuge consists of 3,559 acres, including 1,459 acres of cypress swamp, 1,000 acres of marsh, 900 acres of open water, and scattered hardwood swamp, pine forest, and other upland areas (FWS 2008e). The only public access to the refuge is at the entrance on Highway 122 west of Lakeland. Access to the refuge is primarily by boat and freshwater fishing is the most popular activity. More than 20,000 anglers visit the refuge each year. Several bass fishing tournaments are also held annually. Largemouth bass and bluegill are the predominant fish species sought. Other common freshwater fish species include chain pickerel, lake chubsucker, gar, warmouth, crappie, and bowfin. The main attraction of the refuge is the lake itself and hunting is not permitted within the refuge. Kayaking and canoeing are permitted at the lake; however, the majority of visitors occupy small motorized boats for fishing purposes. The refuge also offers wildlife observation, photography, and boating and hiking trails (FWS 2008e; Okefenokee NWR 2008).

3.8.1.5 Additional Recreation Areas Underlying Associated Airspace

Additional recreation areas underlying airspace used by A/OA-10s operating out of Moody AFB include the following:

- Moody 1 MOA: Georgia Veterans Memorial, Jefferson Davis, and Reed Bingham state parks.
- Moody 3 MOA: Kolomoki Mound and George T. Bagby state parks.
- Live Oak MOA: Ichetucknee Springs State Park, Suwannee River, and Big Shoals WMA; Osceola National Forest is located about 3 miles east of Live Oak MOA.
- Bulldog A and B MOAs: Big Dukes Pond Preserve, Di-Lane WMA, George L. Smith State Park, Magnolia Springs State Park, Ohoopee Dunes Natural Area, Piedmont NWR, Savannah Coastal NWR, and Yuchi WMA.
- VR-1065: Torreya State Park (Ponce de Leon Springs and Falling Waters state recreation areas are located near this airspace) (Moody AFB 2006a).

A variety of outdoor recreation experiences are available within these special use land management areas.

3.8.2 Environmental Consequences

Impacts to recreation include consideration of the variables of resource sensitivity (the rarity and importance of a recreational resource within the area of potential effect), resource quantity (opportunities for similar recreational experiences within the area of potential effect), and resource quality (the recreational experience offered is unique to the area of potential effect). Impacts to recreation are generally considered significant if a designated federal, state, regional, or local park or preservation area is affected such that the amount of land available for recreation is reduced or increased and/or the inherent value of recreation use is diminished or enhanced for the long term.

3.8.2.1 Proposed Action

The implementation of the Proposed Action has the potential to affect recreation by reducing the number of weekend days Moody AFB and Grand Bay Range are open to the public for hunting. The Proposed Action includes flying training one weekend per month, potentially limiting hunting, which occurs on the weekends only at Moody AFB and Grand Bay Range during specified hunting seasons. Georgia DNR determines and publishes the hunting schedule for the Grand Bay WMA every 2 years. To mitigate the impact on hunting activities, the proposed CAU would coordinate with the Georgia DNR to notify them in advance regarding the weekends the range would be utilized for training activities and, therefore,

unavailable for hunting. The goal would be to coordinate far enough in advance to eliminate the days needed for training from the available hunting days Georgia DNR publishes for the WMA. However, as specified in the MOU between the Georgia DNR and Moody AFB concerning Grand Bay Range and Grand Bay WMA, Moody AFB has the right to restrict access to the licensed areas at any time for national security purposes or to fulfill the mission of the installation. Prior notice to Georgia DNR is required for closing or restricting access for scheduled military operations; however, prior notice is not required for emergency closings or restricted access necessary for the protection of life and property (Georgia DNR 2007a).

With the estimated 4.5% increase in annual sortie-operations in airspace associated with A/OA-10 operations at Moody AFB and addition of weekend flying operations with implementation of the Proposed Action, there would be the potential for increased transitory nuisance noise and visual intrusion associated with A/OA-10 overflights of special use land management areas used for recreation. Because the vast majority of proposed increased sortie-operations would occur within R-3008 (2,160 annual sortie-operations, see Table 3.3-3), the greatest potential would be for impacts at Banks Lake NWR as A/OA-10s pass overhead en route to Grand Bay Range (R-3008). Current observations by Banks Lake NWR personnel indicate that visitation to Banks Lake NWR does not increase during weekends and use of the NWR is considered to be low as familiarity with refuge is minimal by surrounding communities (Okefenokee NWR 2008). At Banks Lake NWR, recreation activities that would be affected by the noise generated by weekend flying training would mostly be fishing, and other lake-oriented activities, though a 0.25-mile hiking trail is present. The context of potential impacts at Banks Lake NWR are somewhat unique due to the proximity of the refuge to Grand Bay Range and the corresponding expectation of recreationists that military aircraft would potentially be operating in the area.

Some recreationists would potentially be interested in the experience of observing military aircraft on a training mission. Aircraft enthusiasts may consider the weekend opportunity to observe training an increase in recreational experience.

The Proposed Action would result in minimal increases in sortie-operations, including weekend flying, overlying the Okefenokee NWR and Wilderness (and the Stephen C. Foster Georgia State Park located in the non-wilderness/west entrance area of the refuge). This includes an increase of 100 sortie-operations within the Moody AFB LATN, which overlies Okefenokee NWR, and an increase of 3 annual sortie-operations in VR-1066, which passes over the northern section of the Okefenokee NWR (see Table 3.3-4).

The context for these impacts is unique due to the wilderness status of the interior portions of the Okefenokee NWR. Solitude and primitive conditions are central to wilderness character and the sight and sound of aircraft intrude on these wilderness characteristics. However, outdoor recreationists' reactions to aircraft noise exposure in wildernesses are variable and difficult to objectively assess. The *Potential Impacts of Aircraft Overflights of National Forest System Wildernesses* (U.S. Forest Service [USFS] 1992) represents the vanguard large-scale study of this issue. In addition, Congress mandated studies in certain parks specifically because of their very high levels of air tour flights, resulting in the *Report on Effects of Aircraft Overflights on the National Park System* (NPS 1994). In these studies, small percentages of individuals associate annoyance with aircraft overflight activity and most are not more than slightly or moderately annoyed (NPS 1994). High-altitude jet aircraft and small private airplanes are noticed at higher percentages than low-flying jets (USFS 1992), such as A/OA-10s as they would be operating in airspace overlying the Okefenokee Wilderness. However, the noise from low-flying jets and

helicopters was found to be more annoying than other aircraft overflights, which can be partially attributed to the startle effect associated with some of these types of operations (USFS 1992).

Use of the Moody AFB LATN would continue to be randomly dispersed throughout its 85,000 nm^2. Although A/OA-10s typically fly at altitudes ranging from 500 ft AGL to 1,500 ft MSL, the Air Force is authorized to fly to 300 ft MSL but should not fly within 500 ft of a person, vessel, vehicle, or structure.

Recreation at other special use land management areas underlying airspace used by A/OA-10s operating out of Moody AFB may experience minor increased and/or weekend transitory impacts from aircraft overflights, but increased use would be at levels too low to be noticeable to most recreationists.

Overall, the Proposed Action is expected to have minor impacts on recreational opportunities and experiences at Moody AFB, Grand Bay Range, Banks Lake NWR, and Okefenokee NWR and Wilderness.

3.8.2.2 No-Action Alternative

Under the No-Action Alternative, the proposed beddown of the CAU would not occur at Moody AFB. Consequently, baseline conditions, as described in Section 3.8.1 would remain unchanged. Therefore, there would be no significant impacts to recreation at Moody AFB, Grand Bay Range, Okefenokee NWR and Wilderness, and the vicinity.

3.9 SOCIOECONOMICS

Socioeconomics is defined as the social and economic activities associated with the human environment, particularly population and economic activity. Economic activity typically includes employment, personal income, and industrial growth. Impacts on these two fundamental socioeconomic indicators can also influence other components such as housing availability and public services.

The affected area for socioeconomics is composed of the counties and communities whose economic activities are closely related to activities at the military installation. Socioeconomic data are presented for the base and at the county level in order to analyze baseline socioeconomic conditions in the context of county trends. Data have been collected from published documents issued by federal, state, and local agencies; from state and national databases (e.g., U.S. Census Bureau; University of Georgia [UGA]; and Moody AFB).

3.9.1 Affected Environment

Moody AFB is located in south-central Georgia within Lowndes and Lanier counties. Because direct and indirect socioeconomic effects associated with implementation of the proposed CAU beddown would occur in the vicinity of Moody AFB, the ROI for socioeconomic impacts includes the counties of Lanier and Lowndes (Figure 3-4).

3.9.1.1 Population and Housing

The baseline population associated with Moody AFB is 9,889 persons in 2006, including 3,812 military personnel, 3,665 military dependents, 428 appropriated fund civilian personnel, and 1,984 non-appropriated fund civilians, contractors, and private businesses (Table 3.9-1) (Moody AFB 2006b). The population of Valdosta is 45,529 comprising 43% of the two-county ROI. Between 2000 and 2006, the population of Valdosta increased 4.1% while the population of Lanier and Lowndes counties increased 6.3% during the same period with a population of 105,567 persons. By comparison, the population of the State of Georgia increased by 14.4% during the 6-year period, reaching a population of 9,363,941 in 2006 (UGA 2006; U.S. Census Bureau 2008a).

Table 3.9-1. Moody AFB Baseline Population

Classification	*Living On Base*	*Living Off Base*	*Total*
Appropriated Fund Military	469	3,343	3,812
Active Duty Military Dependents	723	2,942	3,665
Appropriate Fund Civilians	0	428	428
Non-Appropriated Fund Contract Civilians and Private Business	0	1,984	1,984
Total	**1,192**	**8,697**	**9,889**

Source: Moody AFB 2006b.

Housing units in the two-county ROI totaled 45,227 in 2006, with 1,149 authorizations for construction of new housing. In 2000, the home ownership rate averaged 68.5% with a median value of $74,900 (UGA 2006). The average household size in the region was 2.65 persons which matched that of the state. The City of Valdosta had 19,007 housing units with an 88% occupancy rate (U.S. Census Bureau 2008b). As presented in Table 3.9-1, approximately 70% of Moody AFB personnel are accompanied and 12% of the Moody AFB population resides on base, including 469 personnel and 723 dependents. The remaining 88% reside in surrounding communities off base (Moody AFB 2006b).

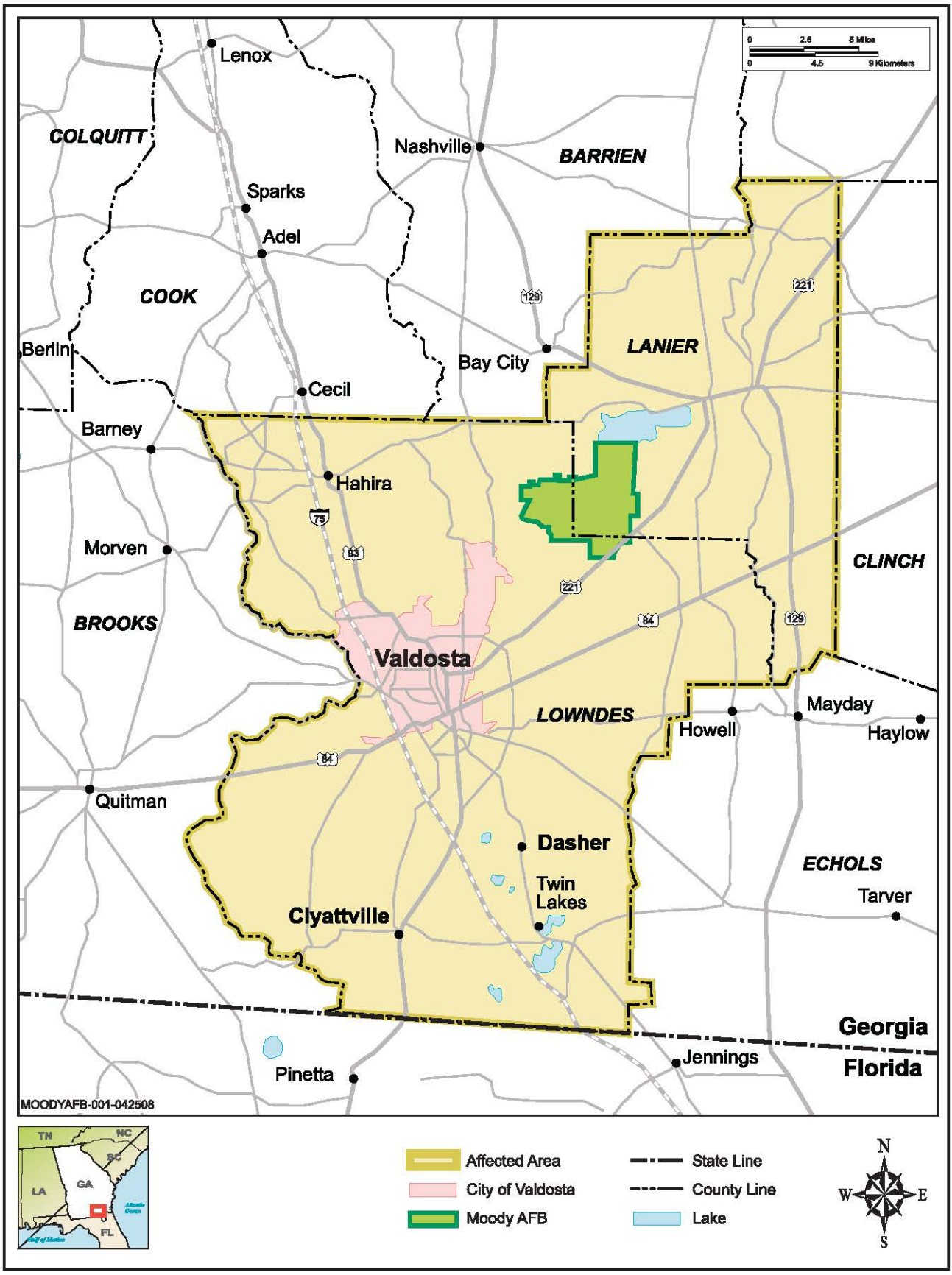

Figure 3-4

ROI for Socioeconomics Associated with the Proposed Action

3.9.1.2 Employment and Earnings

The civilian labor force for the ROI is 56,340 persons of whom 54,134 were employed representing an unemployment rate of 3.9% compared to the state unemployment rate of 4.6% (Georgia Department of Labor 2008). The averaged median household income for the ROI is $33,079; persons below the poverty level averaged 18% in the ROI and 10% for the State of Georgia.

The regional economy, like many other areas nationally, has shifted toward services and retail trade which are the two largest employment sectors (nonfederal government) in the region, followed by government and government enterprises. The top 10 employers in the region, in alphabetical order, are Farmers & Merchants Bank, Georgia Department of Corrections, Louis Smith Hospital, Lowes Home Centers Inc, Patton Seed Company, South Georgia Medical Center, Titlemax of Valdosta Inc, Valdosta State University, Wal-Mart, and Wausau Homes Inc. (Georgia Department of Labor 2008).

Moody AFB is among the area's largest employers with a workforce of 6,224 persons. The total annual payroll expenditures in 2006 were more than $215 million. Further, the Air Force estimates that the economic stimulus of Moody AFB created approximately 2,136 secondary jobs in the civilian economy generating over $57 million in the local region. Construction costs, service contracts, and materials, supplies, and equipment for the base totaled over $65 million. In total, Moody AFB contributed over $337 million to the local economy in FY06 (Moody AFB 2006b).

3.9.2 Environmental Consequences

Analyses of potential impacts to socioeconomic resources considered both economic and social characteristics of the affected environment. These characteristics include the size and demographic composition of the population; employment, income, and other general economic indicators. Potential socioeconomic consequences were assessed in terms of effects of the Proposed Action on the local economy, primarily driven by changes in base personnel. There are no construction projects associated with the Proposed Action as existing facilities would be utilized for establishment of the CAU.

3.9.2.1 Proposed Action

Under the Proposed Action, 54 full-time CAU Air Reserve Technicians and civilians would be permanently assigned to Moody AFB representing an increase of less than 1% to the existing base employment of 6,224 personnel. The CAU personnel, along with their families (average of 2 dependents) would result in an increase of less than 1% of the existing two-county ROI population of 45,529.

Active Duty personnel at Moody AFB earned an average annual salary of $48,516 (Moody AFB 2006b). Based on this average, the full-time CAU positions at Moody AFB would generate approximately $2.6 million resulting in a positive, yet minor impact to the local economy.

While the CAU personnel and their dependents would generate added demand for housing and services, this increase would not have a measurable impact to the local or regional population and would not place noticeable adverse demands on community services, utilities, or housing. Housing supplies on- and off-base are adequate and would be sufficient to accommodate the personnel associated with the Proposed Action.

It is assumed that the 139 Traditional Reservists (i.e., part-time) assigned to Moody AFB under the Proposed Action, would either live in the area or lodge and dine on the base during drill weekends and during the 2-week Annual Tour; therefore, they would have a negligible impact on socioeconomic resources in the ROI.

In summary, personnel changes at Moody AFB associated with the proposed establishment of a CAU would result in no adverse or long-lasting socioeconomic impacts within Lowndes and Lanier counties.

3.9.2.2 No-Action Alternative

Under the No-Action Alternative, there would be no increase in personnel at Moody AFB since the AFRC would not establish a CAU at Moody AFB. The regional and base population would not be affected and no impacts to socioeconomics within the ROI would occur with implementation of the No-Action Alternative.

CHAPTER 4
CUMULATIVE EFFECTS AND IRREVERSIBLE/IRRETRIEVABLE COMMITMENT OF RESOURCES

4.1 CUMULATIVE EFFECTS

CEQ regulations stipulate that potential environmental impacts resulting from cumulative impacts should be considered within an EA. Cumulative impacts are defined as "the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions" (40 CFR 1508.7). CEQ guidance in Considering Cumulative Effects (CEQ 1997) affirms this requirement, stating that the first steps in assessing cumulative effects involve defining the scope of the other actions and their interrelationship with the proposed action. The scope must consider geographic and temporal overlaps among the proposed action and other actions. It must also evaluate the nature of interactions among these actions. In accordance with NEPA, a discussion of cumulative impacts resulting from projects that are proposed, currently under construction, recently completed, or anticipated to be implemented in the near future is necessary.

Cumulative effects are most likely to arise when a relationship or synergism exists between a proposed action and other actions expected to occur in a similar location or during a similar time period. Actions overlapping with or in close proximity to the proposed action would be expected to have more potential for a relationship than those more geographically separated. Similarly, actions that coincide, even partially, in time would tend to offer a higher potential for cumulative effects.

To identify cumulative effects the analysis needs to address three fundamental questions:

1. Does a relationship exist such that affected resource areas of the proposed action might interact with the affected resource areas of past, present, or reasonably foreseeable actions?
2. If one or more of the affected resource areas of the proposed action and another action could be expected to interact, would the proposed action affect or be affected by impacts of the other action?
3. If such a relationship exists, then does an assessment reveal any potentially significant impacts not identified when the proposed action is considered alone?

4.1.1 Past Actions Relevant to the Proposed Action

The following actions have been approved and are in various stages of implementation at Moody AFB:

Base Closure and Realignment A/OA/OA-10 Beddown. The Air Force made the decision to 1) distribute 68 T-38C and 45 T-6A aircraft to other Air Education and Training Command locations to consolidate training; 2) Moody AFB would receive 48 A/OA-10 aircraft to stand up a new ACC Active Duty unit; 3) Moody AFB would receive base-level TF34 engine intermediate maintenance, establishing a TF34 Centralized Intermediate Repair Facility (CIRF); and 4) the Air Force would relocate base-level ALQ-184 intermediate maintenance, establishing a CIRF for ALQ-184 electronic countermeasure pods at an alternate location. An EA was prepared to assess the proposed action, and a Finding of No Significant Impact (FONSI) was signed on 12 September 2006 (Moody AFB 2006a). The results of this action are reflected in the baseline of this EA.

4.1.2 Present Military Actions

Bemiss Field Unimproved Landing Zone (ULZ) and AC-130 Training. The proposed action includes construction and use of a ULZ at Bemiss Field for HH-60 and HC-130 operations and the use of Grand

Bay Range (R-3008) for air-to-ground gunnery training by AC-130 aircrews for approximately 1,000 sortie-operations per year. An EA is being prepared for this proposed action.

4.1.3 Reasonably Foreseeable Actions

The category of reasonably foreseeable actions includes actions that have a potential to coincide, either partially in time or geographic extent, with the Proposed Action or the No-Action Alternative.

4.1.3.1 Future Military Actions:

- Moody AFB is under consideration for the establishment of the Common Battlefield Airman Training Program by FY11. This program provides airman skills training and may require expansion of the cantonment area and supporting facilities. This program may involve an increase of approximately 2,000 military personnel at Moody AFB on an annual average basis.
- Shaw AFB is proposing to improve airspace training for pilots of the 20 FW and pilots of the 169 FW at McEntire Joint National Guard Base, South Carolina, by modifying the training airspace overlying parts of South Carolina and Georgia. One component of the proposal is to expand Bulldog A MOA to the east to underlie and match the boundaries of existing Bulldog B MOA. This airspace was used in the past by Moody AFB A/OA-10 pilots and was proposed for use under the Moody AFB A/OA-10 BRAC EA. As with the Proposed Action, use of the Coastal MOA complex would occur on a non-routine basis but operations would not exceed those evaluated in the Supplemental Environmental Assessment for the Coastal Airspace Complex. As future mission training requirements dictate, expanded use of R-3007 and the Coastal Airspace Complex may be required.
- Moody AFB will potentially evaluate increasing sortie rates in SUA and corresponding weapons expenditure rates and multiple run-in headings for weapons delivery on local ranges and military operating areas. As a result of BRAC actions, there has been an increase in usage for several ranges and MOAs utilized by 23 WG aircraft for training. This action contributes to ensuring that aircrews are mission trained, qualified, and prepared for deployment to support real-world events, which includes the tactical delivery of air to ground munitions, laser designations of targets from ground and airborne platforms, and threat evasion.

4.1.3.2 Federal Aviation Administration (FAA)

The FAA published its *National Aviation Research Plan 2004* which includes goals to increase the safety and efficiency of the National Airspace System and to modernize and reengineer the National Airspace Architecture. The National Airspace Architecture describes changes in communications, navigation, surveillance, automation tools, avionics, and computers/networks. These changes will affect flight operations over Georgia, Florida, and the Gulf of Mexico. The FAA is planning to redesign ARTCCs to accommodate air traffic in the Jacksonville, Miami, and Houston ARTCCs. None of these changes would affect the airspace proposed for use by A/OA-10 aircraft.

4.2 CUMULATIVE EFFECTS ANALYSIS

The following discussion describes how the impacts of other past, present, and reasonably foreseeable actions might be affected by those resulting from the proposed action at Moody AFB, and whether such relationships would result in potentially significant impacts not identified when the proposed action is considered alone.

4.2.1 BRAC A/OA-10 Beddown

The proposed action would result in a loss of 68 T-38C aircraft and 45 T-6A aircraft and the addition of 48 A/OA-10 aircraft at Moody AFB. Compared to the baseline conditions, potential reductions in aircraft

sorties, noise impacts, and air emissions would result from implementation of this action. This action, combined with the proposed action, would not result in significant cumulative impact on any resource area.

4.2.2 Bemiss Field ULZ and AC-130 Training

The proposed construction and use of the Bemiss Field ULZ would impact 24.6 acres within Grand Bay Range in addition to a slight increase in aircraft operations from training. No significant impacts to airspace, noise, biological resources, or any other resource area are expected from implementation of this action. Given that the proposed action would have a minimal effect within the base, the combined impacts of both actions would not result in significant cumulative impacts to any resource area.

4.2.3 Common Battlefield Airman Training Program

The proposed action would increase training, may require expansion of the cantonment area, and would increase the personnel at Moody AFB. Although not fully analyzed, it is anticipated that this action would not result in significant individual or cumulative impacts in any resource area, as any impacts, such as those to transportation, geological resources, noise, and airspace, would be properly mitigated.

4.2.4 Expansion of Bulldog A MOA and Use of Townsend Range for Training

The proposed action would expand training airspace and increase training use at Townsend Range. Although not fully analyzed, it is anticipated that this action would not result in significant impacts in any resource area, individually or cumulatively. If necessary, further environmental analysis (e.g., an EA) would be conducted to evaluate the potential environmental impacts. The CAU beddown action would be minor in comparison to this action.

4.2.5 Increased Sortie Rates in SUA and Range Expenditures

The proposed increase in sortie rates in SUA and corresponding weapons expenditure rates on local ranges and military operating areas is not anticipated to have a significant impact on resource areas. If necessary, further environmental analysis (e.g., an EA) would be conducted to evaluate the action and potential environmental impacts, but the CAU beddown would be minor in comparison.

4.2.6 Federal Aviation Administration (FAA)

The proposed redesign of ARTCCs and changes in communications, navigation, surveillance, automation tools, avionics, and computers/networks may impact flight operations over Georgia, Florida, and the Gulf of Mexico. This action would be evaluated separately for potential environmental impacts.

4.3 SUMMARY OF CUMULATIVE EFFECTS

In summary, none of the projected impacts of the proposed action are individually significant. The incremental contribution of impacts of the Proposed Action, when considered in combination with other past, present, and reasonably foreseeable actions would not be significant.

4.4 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

NEPA requires that environmental analysis include identification of "…any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented." Irreversible and irretrievable resource commitments are related to the use of non-renewable resources and the effects that the uses of these resources have on future generations. Irreversible effects primarily result from the use or destruction of a specific resource (e.g., energy and minerals) that cannot be replaced

within a reasonable time frame. Irretrievable resource commitments involve the loss in value of an affected resource that cannot be restored as a result of the action (e.g., the disturbance of a cultural site).

For the Proposed Action, most resource commitments are neither irreversible nor irretrievable. Most impacts are short-term and temporary, or long lasting but negligible. Those limited resources that may involve a possible irreversible or irretrievable commitment under the Proposed Action are discussed below.

The Proposed Action would require the use of energy, both electric and fossil fuels, for ongoing operations and continued aircraft traffic. This would continue as long as the A/OA-10 program and training requirements remain in operation.

CHAPTER 5
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CHAPTER 6
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This EA was prepared for, and under the direction of, the 23 CES/CEVA and Headquarters AFRC by TEC Inc. Members of the professional staff are listed below:

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APPENDIX A

Agency and Public Correspondence

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Lanier County Board of Commissioners
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DEPARTMENT OF THE AIR FORCE
23RD CIVIL ENGINEER SQUADRON (ACC)
MOODY AIR FORCE BASE GEORGIA

MAY 0 6 2008

MEMORANDUM FOR: HISTORIC PRESERVATION DIVISION
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ATTN: BETSY SHIRK
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Atlanta GA 30303

FROM: 23 CES/CC
3485 Georgia Street
Moody AFB GA 31699-1707

SUBJECT: Proposed A-10 Reserve Associate Unit Beddown at Moody Air Force Base, GA

1. The U.S. Air Force proposes to establish a Reserve Associate Unit at Moody Air Force Base (AFB) to train on A-10 operations, maintenance, and medical functions consisting of 57 fulltime Air Reserve Technicians and 144 part time Traditional Reservists. Traditional reservists typically train one weekend per month, in addition to a 2-week long Annual Tour. To increase mission cohesiveness, Reserve personnel would train in the same facilities as their corresponding Active Duty (23rd Fighter Group) functions to the maximum extent possible. Reserve personnel would utilize existing available space at Moody AFB to perform leadership, operations, maintenance, and medical functions; no new construction activities would be associated with this action. The majority of Reserve pilots would accomplish their flying training during the week in conjunction with the normal A-10 Active Duty flying program. One weekend day per month, Reserve pilots would plan to fly in conjunction with the Traditional Reservist Unit Training Assembly activities. There would be no increase in the number or type of air operations associated with the proposed action; however, whereas weekend flying has not occurred at Moody AFB in recent years, A-10 operations would occur on up to 12 Saturdays a year. These training operations would primarily occur at Moody AFB at Grand Bay Range, but also could occur at other Department of Defense training ranges in the region currently utilized by the Moody AFB Active Duty A-10 flying program.

2. An environmental assessment will be prepared to consider the proposal's potential environmental impacts, particularly with regard to Airspace Management, Air Quality, Safety, Noise, Recreation, Socioeconomics, Transportation, and Land Use. Please forward any identified issues or concerns to our project manager, Mr. Gregory Lee, at the above address by 19 May 08.

3. If you have any specific questions relative to the proposal, we would like to hear from you. Please contact Mr. Lee at (229) 257-5881 or by e-mail at: gregory.lee@moody.af.mil.

GREG A. WILLIAMS, Lt Col, USAF
Commander

Attachment:
Figure 1 – Moody AFB Base Map

Global Power for America

DEPARTMENT OF THE AIR FORCE
23RD CIVIL ENGINEER SQUADRON (ACC)
MOODY AIR FORCE BASE GEORGIA

MAY 06 2008

MEMORANDUM FOR: OKEFENOKEE NATIONAL WILDLIFE REFUGE
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Route 2 Box 3330
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FROM: 23 CES/CC
3485 Georgia Street
Moody AFB GA 31699-1707

SUBJECT: Proposed A-10 Reserve Associate Unit Beddown at Moody Air Force Base, GA

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Commander

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Global Power for America

DEPARTMENT OF THE AIR FORCE
23RD CIVIL ENGINEER SQUADRON (ACC)
MOODY AIR FORCE BASE GEORGIA

MAY 0 6 2008

MEMORANDUM FOR: DEPARTMENT OF THE ARMY
SAVANNAH DISTRICT CORPS OF ENGINEERS
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FROM: 23 CES/CC
3485 Georgia Street
Moody AFB GA 31699-1707

SUBJECT: Proposed A-10 Reserve Associate Unit Beddown at Moody Air Force Base, GA

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GREG A. WILLIAMS, Lt Col, USAF
Commander

Attachment:
Figure 1 – Moody AFB Base Map

DEPARTMENT OF THE AIR FORCE
23RD CIVIL ENGINEER SQUADRON (ACC)
MOODY AIR FORCE BASE GEORGIA

MAY 06 2008

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327 W. Savannah Ave
Valdosta GA 31603

FROM: 23 CES/CC
3485 Georgia Street
Moody AFB GA 31699-1707

SUBJECT: Proposed A-10 Reserve Associate Unit Beddown at Moody Air Force Base, GA

1. The U.S. Air Force proposes to establish a Reserve Associate Unit at Moody Air Force Base (AFB) to train on A-10 operations, maintenance, and medical functions consisting of 57 fulltime Air Reserve Technicians and 144 part time Traditional Reservists. Traditional reservists typically train one weekend per month, in addition to a 2-week long Annual Tour. To increase mission cohesiveness, Reserve personnel would train in the same facilities as their corresponding Active Duty (23rd Fighter Group) functions to the maximum extent possible. Reserve personnel would utilize existing available space at Moody AFB to perform leadership, operations, maintenance, and medical functions; no new construction activities would be associated with this action. The majority of Reserve pilots would accomplish their flying training during the week in conjunction with the normal A-10 Active Duty flying program. One weekend day per month, Reserve pilots would plan to fly in conjunction with the Traditional Reservist Unit Training Assembly activities. There would be no increase in the number or type of air operations associated with the proposed action; however, whereas weekend flying has not occurred at Moody AFB in recent years, A-10 operations would occur on up to 12 Saturdays a year. These training operations would primarily occur at Moody AFB at Grand Bay Range, but also could occur at other Department of Defense training ranges in the region currently utilized by the Moody AFB Active Duty A-10 flying program.

2. An environmental assessment will be prepared to consider the proposal's potential environmental impacts, particularly with regard to Airspace Management, Air Quality, Safety, Noise, Recreation, Socioeconomics, Transportation, and Land Use. Please forward any identified issues or concerns to our project manager, Mr. Gregory Lee, at the above address by 19 May 08.

3. If you have any specific questions relative to the proposal, we would like to hear from you. Please contact Mr. Lee at (229) 257-5881 or by e-mail at: gregory.lee@moody.af.mil.

GREG A. WILLIAMS, Lt Col, USAF
Commander

Attachment:
Figure 1 – Moody AFB Base Map

Global Power for America

DEPARTMENT OF THE AIR FORCE
23RD CIVIL ENGINEER SQUADRON (ACC)
MOODY AIR FORCE BASE GEORGIA

MAY 06 2008

MEMORANDUM FOR: CITY OF VALDOSTA
ATTN: JOHN J. FRETTI, MAYOR
316 East Central Avenue
Valdosta GA 31601

FROM: 23 CES/CC
3485 Georgia Street
Moody AFB GA 31699-1707

SUBJECT: Proposed A-10 Reserve Associate Unit Beddown at Moody Air Force Base, GA

1. The U.S. Air Force proposes to establish a Reserve Associate Unit at Moody Air Force Base (AFB) to train on A-10 operations, maintenance, and medical functions consisting of 57 fulltime Air Reserve Technicians and 144 part time Traditional Reservists. Traditional reservists typically train one weekend per month, in addition to a 2-week long Annual Tour. To increase mission cohesiveness, Reserve personnel would train in the same facilities as their corresponding Active Duty (23rd Fighter Group) functions to the maximum extent possible. Reserve personnel would utilize existing available space at Moody AFB to perform leadership, operations, maintenance, and medical functions; no new construction activities would be associated with this action. The majority of Reserve pilots would accomplish their flying training during the week in conjunction with the normal A-10 Active Duty flying program. One weekend day per month, Reserve pilots would plan to fly in conjunction with the Traditional Reservist Unit Training Assembly activities. There would be no increase in the number or type of air operations associated with the proposed action; however, whereas weekend flying has not occurred at Moody AFB in recent years, A-10 operations would occur on up to 12 Saturdays a year. These training operations would primarily occur at Moody AFB at Grand Bay Range, but also could occur at other Department of Defense training ranges in the region currently utilized by the Moody AFB Active Duty A-10 flying program.

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GREG A. WILLIAMS, Lt Col, USAF
Commander

Attachment:
Figure 1 – Moody AFB Base Map

DEPARTMENT OF THE AIR FORCE
23RD CIVIL ENGINEER SQUADRON (ACC)
MOODY AIR FORCE BASE GEORGIA

MAY 0 6 2008

MEMORANDUM FOR: LANIER COUNTY BOARD OF COMMISSIONERS
ATTN: ALBERT STUDSTILL
100 Main Street
County Courthouse
Lakeland GA 31635

FROM: 23 CES/CC
3485 Georgia Street
Moody AFB GA 31699-1707

SUBJECT: Proposed A-10 Reserve Associate Unit Beddown at Moody Air Force Base, GA

1. The U.S. Air Force proposes to establish a Reserve Associate Unit at Moody Air Force Base (AFB) to train on A-10 operations, maintenance, and medical functions consisting of 57 fulltime Air Reserve Technicians and 144 part time Traditional Reservists. Traditional reservists typically train one weekend per month, in addition to a 2-week long Annual Tour. To increase mission cohesiveness, Reserve personnel would train in the same facilities as their corresponding Active Duty (23rd Fighter Group) functions to the maximum extent possible. Reserve personnel would utilize existing available space at Moody AFB to perform leadership, operations, maintenance, and medical functions; no new construction activities would be associated with this action. The majority of Reserve pilots would accomplish their flying training during the week in conjunction with the normal A-10 Active Duty flying program. One weekend day per month, Reserve pilots would plan to fly in conjunction with the Traditional Reservist Unit Training Assembly activities. There would be no increase in the number or type of air operations associated with the proposed action; however, whereas weekend flying has not occurred at Moody AFB in recent years, A-10 operations would occur on up to 12 Saturdays a year. These training operations would primarily occur at Moody AFB at Grand Bay Range, but also could occur at other Department of Defense training ranges in the region currently utilized by the Moody AFB Active Duty A-10 flying program.

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GREG A. WILLIAMS, Lt Col, USAF
Commander

Attachment:
Figure 1 – Moody AFB Base Map

Global Power for America

DEPARTMENT OF THE AIR FORCE
23RD CIVIL ENGINEER SQUADRON (ACC)
MOODY AIR FORCE BASE GEORGIA

MAY 06 2008

MEMORANDUM FOR: LANIER COUNTY BOARD OF COMMISSIONERS
ATTN: GEORGE P. JODY HAMM
100 Main Street
County Courthouse
Lakeland GA 31635

FROM: 23 CES/CC
3485 Georgia Street
Moody AFB GA 31699-1707

SUBJECT: Proposed A-10 Reserve Associate Unit Beddown at Moody Air Force Base, GA

1. The U.S. Air Force proposes to establish a Reserve Associate Unit at Moody Air Force Base (AFB) to train on A-10 operations, maintenance, and medical functions consisting of 57 fulltime Air Reserve Technicians and 144 part time Traditional Reservists. Traditional reservists typically train one weekend per month, in addition to a 2-week long Annual Tour. To increase mission cohesiveness, Reserve personnel would train in the same facilities as their corresponding Active Duty (23rd Fighter Group) functions to the maximum extent possible. Reserve personnel would utilize existing available space at Moody AFB to perform leadership, operations, maintenance, and medical functions; no new construction activities would be associated with this action. The majority of Reserve pilots would accomplish their flying training during the week in conjunction with the normal A-10 Active Duty flying program. One weekend day per month, Reserve pilots would plan to fly in conjunction with the Traditional Reservist Unit Training Assembly activities. There would be no increase in the number or type of air operations associated with the proposed action; however, whereas weekend flying has not occurred at Moody AFB in recent years, A-10 operations would occur on up to 12 Saturdays a year. These training operations would primarily occur at Moody AFB at Grand Bay Range, but also could occur at other Department of Defense training ranges in the region currently utilized by the Moody AFB Active Duty A-10 flying program.

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GREG A. WILLIAMS, Lt Col, USAF
Commander

Attachment:
Figure 1 – Moody AFB Base Map

Global Power for America

DEPARTMENT OF THE AIR FORCE
23RD CIVIL ENGINEER SQUADRON (ACC)
MOODY AIR FORCE BASE GEORGIA

MAY 06 2008

MEMORANDUM FOR: LOWNDES COUNTY BOARD OF COMMISSIONERS
ATTN: RODNEY N. CASEY, CHAIRMAN
325 West Savannah Avenue
Valdosta GA 31601

FROM: 23 CES/CC
3485 Georgia Street
Moody AFB GA 31699-1707

SUBJECT: Proposed A-10 Reserve Associate Unit Beddown at Moody Air Force Base, GA

1. The U.S. Air Force proposes to establish a Reserve Associate Unit at Moody Air Force Base (AFB) to train on A-10 operations, maintenance, and medical functions consisting of 57 fulltime Air Reserve Technicians and 144 part time Traditional Reservists. Traditional reservists typically train one weekend per month, in addition to a 2-week long Annual Tour. To increase mission cohesiveness, Reserve personnel would train in the same facilities as their corresponding Active Duty (23rd Fighter Group) functions to the maximum extent possible. Reserve personnel would utilize existing available space at Moody AFB to perform leadership, operations, maintenance, and medical functions; no new construction activities would be associated with this action. The majority of Reserve pilots would accomplish their flying training during the week in conjunction with the normal A-10 Active Duty flying program. One weekend day per month, Reserve pilots would plan to fly in conjunction with the Traditional Reservist Unit Training Assembly activities. There would be no increase in the number or type of air operations associated with the proposed action; however, whereas weekend flying has not occurred at Moody AFB in recent years, A-10 operations would occur on up to 12 Saturdays a year. These training operations would primarily occur at Moody AFB at Grand Bay Range, but also could occur at other Department of Defense training ranges in the region currently utilized by the Moody AFB Active Duty A-10 flying program.

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3. If you have any specific questions relative to the proposal, we would like to hear from you. Please contact Mr. Lee at (229) 257-5881 or by e-mail at: gregory.lee@moody.af.mil.

GREG A. WILLIAMS, Lt Col, USAF
Commander

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Figure 1 – Moody AFB Base Map

Global Power for America

DEPARTMENT OF THE AIR FORCE
23RD CIVIL ENGINEER SQUADRON (ACC)
MOODY AIR FORCE BASE GEORGIA

MAY 0 6 2008

MEMORANDUM FOR: U.S. FISH AND WILDLIFE SERVICE
BRUNSWICK FIELD OFFICE
ATTN: STRANT COLWELL
4270 Norwich St.
Brunswick GA 31520

FROM: 23 CES/CC
3485 Georgia Street
Moody AFB GA 31699-1707

SUBJECT: Proposed A-10 Reserve Associate Unit Beddown at Moody Air Force Base, GA

1. The U.S. Air Force proposes to establish a Reserve Associate Unit at Moody Air Force Base (AFB) to train on A-10 operations, maintenance, and medical functions consisting of 57 fulltime Air Reserve Technicians and 144 part time Traditional Reservists. Traditional reservists typically train one weekend per month, in addition to a 2-week long Annual Tour. To increase mission cohesiveness, Reserve personnel would train in the same facilities as their corresponding Active Duty (23rd Fighter Group) functions to the maximum extent possible. Reserve personnel would utilize existing available space at Moody AFB to perform leadership, operations, maintenance, and medical functions; no new construction activities would be associated with this action. The majority of Reserve pilots would accomplish their flying training during the week in conjunction with the normal A-10 Active Duty flying program. One weekend day per month, Reserve pilots would plan to fly in conjunction with the Traditional Reservist Unit Training Assembly activities. There would be no increase in the number or type of air operations associated with the proposed action; however, whereas weekend flying has not occurred at Moody AFB in recent years, A-10 operations would occur on up to 12 Saturdays a year. These training operations would primarily occur at Moody AFB at Grand Bay Range, but also could occur at other Department of Defense training ranges in the region currently utilized by the Moody AFB Active Duty A-10 flying program.

2. An environmental assessment will be prepared to consider the proposal's potential environmental impacts, particularly with regard to Airspace Management, Air Quality, Safety, Noise, Recreation, Socioeconomics, Transportation, and Land Use. Please forward any identified issues or concerns to our project manager, Mr. Gregory Lee, at the above address by 19 May 08.

3. If you have any specific questions relative to the proposal, we would like to hear from you. Please contact Mr. Lee at (229) 257-5881 or by e-mail at: gregory.lee@moody.af.mil.

GREG A. WILLIAMS, Lt Col, USAF
Commander

Attachment:
Figure 1 – Moody AFB Base Map

Global Power for America

DEPARTMENT OF THE AIR FORCE
23RD CIVIL ENGINEER SQUADRON (ACC)
MOODY AIR FORCE BASE GEORGIA

MAY 06 2008

MEMORANDUM FOR: GEORGIA STATE CLEARINGHOUSE
ATTN: BARBARA JACKSON
270 Washington St. SW, 8th Floor
Atlanta GA 30334

FROM: 23 CES/CC
3485 Georgia Street
Moody AFB GA 31699-1707

SUBJECT: Proposed A-10 Reserve Associate Unit Beddown at Moody Air Force Base, GA

1. The U.S. Air Force proposes to establish a Reserve Associate Unit at Moody Air Force Base (AFB) to train on A-10 operations, maintenance, and medical functions consisting of 57 fulltime Air Reserve Technicians and 144 part time Traditional Reservists. Traditional reservists typically train one weekend per month, in addition to a 2-week long Annual Tour. To increase mission cohesiveness, Reserve personnel would train in the same facilities as their corresponding Active Duty (23rd Fighter Group) functions to the maximum extent possible. Reserve personnel would utilize existing available space at Moody AFB to perform leadership, operations, maintenance, and medical functions; no new construction activities would be associated with this action. The majority of Reserve pilots would accomplish their flying training during the week in conjunction with the normal A-10 Active Duty flying program. One weekend day per month, Reserve pilots would plan to fly in conjunction with the Traditional Reservist Unit Training Assembly activities. There would be no increase in the number or type of air operations associated with the proposed action; however, whereas weekend flying has not occurred at Moody AFB in recent years, A-10 operations would occur on up to 12 Saturdays a year. These training operations would primarily occur at Moody AFB at Grand Bay Range, but also could occur at other Department of Defense training ranges in the region currently utilized by the Moody AFB Active Duty A-10 flying program.

2. An environmental assessment (EA) will be prepared to consider the proposal's potential environmental impacts, particularly with regard to Airspace Management, Air Quality, Safety, Noise, Recreation, Socioeconomics, Transportation, and Land Use. This EA will be provided to you for review and for coordination of intergovernmental review process. Please forward any identified issues or concerns to our project manager, Mr. Gregory Lee, at the above address by 19 May 08.

3. If you have any specific questions relative to the proposal, we would like to hear from you. Please contact Mr. Lee at (229) 257-5881 or by e-mail at: gregory.lee@moody.af.mil.

GREG A. WILLIAMS, Lt Col, USAF
Commander

Attachment:
Figure 1 – Moody AFB Base Map

Global Power for America

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Okefenokee National Wildlife Refuge
Route 2, Box 3330
Folkston, Georgia 31537
(912) 496-7366

May 16, 2008

Mr. Greg Lee
Project Manager
Department of the Air Force
23d Civil Engineer Squadron (ACC)
Moody Air Force Base, Georgia 31699-1707

Subject: Proposed A-10 Reserve Associate Unit Beddown at Moody Air Force Base

Mr. Lee,

Thank you for the opportunity to identify issues to be considered in the environmental assessment being prepared for the Proposed A-10 Reserve Association Unit Beddown at Moody Air Force Base. Our concern is for how the proposed increase in A-10 operations may impact the wilderness character of the Okefenokee National Wilderness Area.

The Okefenokee Wilderness Area is recognized world wide for the experience of wildness and solitude that this congressionally designated wilderness area offers the public. We are particularly concerned the noise and sight of A-10 overflights may affect the sense of solitude and wildness that our visitors presently enjoy. For these reasons, we request that this and future Moody AFB Air Operations environmental assessments address the potential impacts of the proposed action to the wilderness character of the Okefenokee Wilderness Area. We have enclosed a CD of the 2006 Okefenokee Refuge Comprehensive Conservation Plan, because it provides a good summary of the environment, mission, and objectives established for both the refuge and the wilderness area. Please do not hesitate to contact me if you need additional information.

Sincerely,

George Constantino
Refuge Manager

Enc.

DEPARTMENT OF THE AIR FORCE
23RD CIVIL ENGINEER SQUADRON (ACC)
MOODY AIR FORCE BASE GEORGIA

MEMORANDUM FOR: ALL INTERESTED GOVERNMENT AGENCIES, INDIVIDUALS, ORGANIZATIONS, AND PUBLIC AND ACADEMIC REFERENCE LIBRARIES

FROM: 23 CES/CEAN (Attn: Gregory W. Lee)
3485 Georgia Street
Moody AFB GA 31699-1707

SUBJECT: Draft Final Environmental Assessment (EA) for Beddown or Air Force Reserve Command Classic Associate Unit (CAU) on A/OA-10 Operations and Maintenance, Moody Air Foce Base (AFB), Georiga

1. Moody AFB has prepared a Draft Final EA and Draft Final Finding of No Significant Impact (FONSI) for the proposed establishment of a CAU at Moody AFB. This EA evaluates the potential environmental affects of establishing the CAU at Moody AFB to train on A/OA-10 operations, maintenance, and medical functions. Personnel would train in the same facilities and utilize existing available space at Moody AFB; no new construction activities would be associated with this action. There would be no increase in the number or type of air operations associated with the proposed action; however, whereas weekend flying has not occurred at Moody AFB in recent years, A/OA-10 operations would occur on up to 12 weekends a year. These training operations would primarily occur at Moody AFB at Grand Bay Range, but also could occur at other Department of Defense training ranges in the region currently utilized by the Moody AFB Active Duty A/OA-10 flying program.

2. In accordance with the National Environmental Policy Act (NEPA) and Air Force Instruction (AFI) 32-7061, *The Environmental Impact Analysis Process*, a copy of this document is provided to you for review and comment. Libraries are requested to file this document and make it available for public access and reference.

3. Request that written comments be forwarded to the above address before close of business on 29 August 2008. Alternately, written comments may be e-mailed to gregory.lee@moody.af.mil.

4. For additional information about this document, or to request additional copies, please contact the Moody AFB Public Affairs Office at 229-257-2400.

Gregory W. Lee

GREGORY W. LEE
Natural Infrastructure Management Element
Moody AFB Asset Management Flight

Attachment:
Draft Final EA and Draft Final FONSI

OFFICE OF PLANNING AND BUDGET

Sonny Perdue
Governor

Trey Childress
Director

GEORGIA STATE CLEARINGHOUSE MEMORANDUM
EXECUTIVE ORDER 12372 REVIEW PROCESS

TO: Gregory Lee
23 CES/CEVA
Dept. of the Air Force

FROM: Barbara Jackson
Georgia State Clearinghouse

DATE: 8/13/2008

SUBJECT: Executive Order 12372 Review

APPLICANT: Dept. of the Air Force - Moody AFB, GA

PROJECT: Draft Final EA/FONSI: Beddown of Air Force Reserve Command Classic Associate Unit on A/OA-10 Operations and Maintenance, Moody Air Force Base, GA

STATE ID: GA080724003

The applicant/sponsor indicated that a copy of this project was directly submitted to South Georgia RDC and to DNR's Historic Preservation Division, two of our state reviewers. Provided that positive comments are forthcoming from both, the State level review of the above-referenced proposal will have been completed, and the proposal will have been found to be consistent with those state or regional goals, policies, plans, fiscal resources, criteria for Developments of Regional Impact (DRI), environmental impacts, federal executive orders, acts and/or rules and regulations with which the state is concerned.

/bj
Enc.: DNR/EPD, Aug. 13, 2008

Form NCC
January 2004

GEORGIA STATE CLEARINGHOUSE MEMORANDUM
EXECUTIVE ORDER 12372 REVIEW PROCESS

TO: Barbara Jackson
Georgia State Clearinghouse
270 Washington Street, SW, Eighth Floor
Atlanta, Georgia 30334

FROM: DR. CAROL COUCH
DNR/EPD/DIRECTOR'S OFFICE

SUBJECT: Executive Order 12372 Review

APPLICANT: Dept. of the Air Force - Moody AFB, GA

PROJECT: Draft Final EA/FONSI: Beddown of Air Force Reserve Command Classic Associate Unit on A/OA-10 Operations and Maintenance, Moody Air Force Base, GA

STATE ID: GA080724003

FEDERAL ID:

DATE:

☑ This notice is considered to be consistent with those state or regional goals, policies, plans, fiscal resources, criteria for developments of regional impact, environmental impacts, federal executive orders, acts and/or rules and regulations with which this organization is concerned.

This notice is not consistent with:

☐ The goals, plans, policies, or fiscal resources with which this organization is concerned. (Line through inappropriate word or words and prepare a statement that explains the rationale for the inconsistency. (Additional pages may be used for outlining the inconsistencies. Be sure to put the GA State ID number on all pages).

☐ The criteria for developments of regional impact, federal executive orders, acts and/or rules and regulations administered by your agency. Negative environmental impacts or provision for protection of the environment should be pointed out. (Additional pages may be used for outlining the inconsistencies. Be sure to put the GA State ID number on all pages).

☐ This notice does not impact upon the activities of the organization.

NOTE: Should you decide to FAX this form (and any attached pages), it is <u>not</u> necessary to mail the originals to us. [404-656-7916]

Form SC-3
Sept. 2007

Noel Holcomb, Commissioner

Georgia Department of Natural Resources

Historic Preservation Division

W. Ray Luce, Division Director and Deputy State Historic Preservation Officer
34 Peachtree Street, Suite 1600, Atlanta, Georgia, 30303
Telephone (404) 656-2840 Fax (404) 657-1040 http://www.gashpo.org

MEMORANDUM

TO: Gregory W. Lee
Natural Infrastructure Management Element
Moody AFB Asset Management Flight
Department of the Air Force
23rd CES/CEAN
3485 Georgia Street
Moody AFB, Georgia 31699-1707

FROM: for Elizabeth Shirk
Environmental Review Coordinator
Historic Preservation Division

RE: Finding of "No Historic Properties Affected"

PROJECT: **Moody Air Force Base: A-10 Reserve Unit Beddown**
Federal Agency: AF
HP 080512-010

COUNTY: **Lowndes County, Georgia**

DATE: August 14, 2008

The Historic Preservation Division (HPD) has reviewed the information received concerning the above-mentioned project. Our comments are offered to assist federal agencies and project applicants in complying with the provisions of Section 106 of the National Historic Preservation Act.

Based on the information submitted, HPD believes that no historic properties or archaeological resources that are listed in or eligible for listing in the National Register of Historic Places will be affected by this undertaking, as defined in 36 CFR Part 800.4(d)(1). Please note that historic and/or archaeological resources may be located within the project's area of potential effect (APE), however, at this time it has been determined that they will not be impacted by the above-referenced project. Furthermore, any changes to this project as proposed will require further review by our office for compliance with the Section 106 process.

If we may be of further assistance contact Jackie Horlbeck, Environmental Review Historian, at (404) 651-6777, or myself, at (404) 651-6624. Please refer to the project number assigned above in any future correspondence regarding this project.

ES:mcv

cc: Emily Foster, South Georgia RDC

APPENDIX B

Air Quality

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Full time staff commuter emissions

# vehicles	# days	mi/day	VOC lb/mi	CO lb/mi	NOx lb/mi	SOx lb/mi	PM lb/mi	VOC lb	CO lb	NOx lb	SOx lb	PM lb
54	236	20	0.001795	0.028175	0.00143	1.56529E-05	0.000055	457	7181	364	4	14
							Subtotal in tons	0.23	3.59	0.18	0.00	0.01

Part time staff commuter emissions

# vehicles	# days	mi/day	VOC lb/mi	CO lb/mi	NOx lb/mi	SOx lb/mi	PM lb/mi	VOC lb	CO lb	NOx lb	SOx lb	PM lb
139	38	10	0.001795	0.028175	0.00143	1.56529E-05	0.000055	95	1488	76	1	3
							Subtotal in tons	0.05	0.74	0.04	0.00	0.00

Annual Emission Totals:

VOC T/yr	CO T/yr	NOx T/yr	SO2 T/yr	PM_{10} T/yr	$PM_{2.5}$ T/yr
0.28	4.33	0.22	0.00	0.01	0.01

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APPENDIX C

Airspace

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SPECIFICATIONS AND REQUIREMENTS FOR USE OF VR-1065

Originating Activity: 347 OSS/OSOS, Moody AFB, GA 31699-1899;
DSN 460-4544/3531, C229-4544/3531.

Scheduling Activity: 347 OSS/OSOS, Moody AFB, GA 31699-1899; Mon-Fri 0730-1630 L (excl holidays); DSN 460-4544/3531, C229-257-4544/3531.

Hours of Operation: 0700-2400 local daily

Route Description

Altitude Data	*Pt*	*Fac/Rad/Dist*	*Lat/Long*
Cross at 15 MSL	A	SZW 072/31	30° 42.0'N 83° 48.0'W
01 AGL B 15 MSL to	B	SZW 050/16	30° 43.0'N 84° 08.0'W
01 AGL B 15 MSL to	C	SZW 351/11	30° 44.0'N 84° 24.0'W
01 AGL B 15 MSL to	D	SZW 264/31	30° 31.0'N 84° 58.0'W
01 AGL B 15 MSL to	E	PFN 034/28	30° 36.0'N 85° 23.9'W
10 AGL to	F	DWG 014/30	30° 58.0'N 86° 23.0'W
10 AGL B 15 MSL to	G	DWG 058/18	30°38.0'N 86° 23.0'W

Terrain Following Operations: Authorized entire route.

Route Width: 5 NM right and 6 NM left of centerline from A to B;
4 NM right and 5 NM left of centerline from B to C;
5 NM right and 2 NM left of centerline from C to D;
3 NM either side of centerline from D to F:
4 NM either side of centerline from F to G.

Special Operating Procedures:

(1) Tie-in FSS: Macon.
(2) Alternate exit D will be filed and utilized unless scheduled for 2914A.
(3) Report over D to Tyndall Approach Control.
(4) Contact Eglin Mission Control on 262.3 prior to F for clearance into R-2914A.
(5) CAUTION: IR-015 and IR-017 Parallel this route from Pt D to E. Call 187 FW DSN 358-9255 to deconflict.
(6) Alternate Entry: E
(7) Alternate Exit D. Alternate Exit E authorized only with scheduled use of TYNDALL C MOA.
(8) Notify Tyndall RAPCON (DSN 523-2900) of impending use of VR-1065 at least one hour prior to flight penetration of Tyndall C MOA with an ETA for the east boundary of the Tyndall C MOA.
(9) Minimum altitude 1500' AGL between Points D and E. Noise Sensitive Area.
(10) CAUTION: IR-059 runs opposite direction to this route between Points C and F. IR-057 parallels this route between C and F. Call 16 OSS Hulbert Field, DSN 579-6877/7812 to deconflict.
(11) CAUTION: VR-1001 and VR-1005 cross this route near Point B.
(12) CAUTION: Numerous VR's and IR's converge near Point F.
(13) Route entry/exit times must be made plus/minus 5 minutes or route must be rescheduled.
(14) Do not overfly the town of Miccosukee, FL N30-35.0 W84-02.0. Extreme Noise Sensitive Area.
(15) Avoid overflight of Compass Lake, FL (N30-36.0 W85-23) by 1500' or 3 NM. Extreme Noise Sensitive Area.
(16) CAUTION: Route passes within 5 NM of north side of Tallahassee Class C airspace.

FSSs With 100 NM Radius: GNV, MCN, OZR

SPECIFICATIONS AND REQUIREMENTS FOR USE OF VR-1066

Originating Activity: 347 OSS/OSKA, Moody AFB, GA 31699-1899;
DSN 460-4131, C229-257-4131.

Scheduling Activity: 347 OSS/OSKA, Moody AFB, GA 31699-1899; Mon-Fri 0830-1700 local (excl holidays); DSN 460-8053, C229-257-8053.

Hours of Operation: 0700-0000 local daily.

Route Description

Altitude Data	*Pt*	*Fac/Rad/Dist*	*Lat/Long*
Cross at 15 MSL	A	VAD 090/15	30° 59.0'N 82° 54.0'W
01 AGL B 15 MSL to	B	VAD 004/25	31° 23.0'N 83° 11.0'W
01 AGL B 15 MSL to	C	AMG 302/29	31° 47.5'N 82° 59.0'W
01 AGL B 15 MSL to	D	AMG 334/33	32° 03.5'N 82° 41.0'W
01 AGL B 15 MSL to	E	AMG 063/22	31° 42.0'N 82° 08.0'W
10 AGL to	F	AMG 107/38	31° 21.0'N 81° 48.0'W
10 AGL B 15 MSL to	G	AMG 148/38	31° 00.0'N 82° 07.0'W
15 AGL TO	H	VAD 121/17	30° 50.0'N 82° 54.0'W

Terrain Following Operations: Authorized entire route.

Route Width: 5 NM either side of centerline A to B;
7 NM right and 6 NM left of centerline B to C;
5 NM either side from C to D;
3 NM right and 9 NM left of centerline D to E:
9 NM right and 2 NM left of centerline E to F
3 NM right and 8 NM left of centerline F to G
3 NM right and 10 NM left of centerline G to H.

Special Operating Procedures:

(1) Tie-in FSS: Macon.
(2) Alternate Exit Point: E and G
(3) Alternate Entry Point: B and F.
(4) Point G to Highway 441, maintain altitude of 1500 feet AGL
(5) Point A and H are within Moody 2 MOA airspace. Contact Valdosta Approach Control on frequency 233.7 for deconfliction prior to MOA entry.
(6) Avoid overflight of Hatch Power Plant located at (N31-56.3 W82-20.6) by 1500' or 3 NM.
(7) CAUTION: VR-1002/1003 parallel this route from Point A to B. Contact FACSFAC Jacksonville DSN 942-2004/2005 to deconflict.
(8) CAUTION: IR-016 runs opposite direction between Point A and B. 347 OSS will deconflict VR-1066 Point A from IR-016 Point A by 30 minutes.
(9) CAUTION: Point B, VR-1003 crosses this route from SW to NE and VR-1002/1004 parallels this route from Point B to C.
(10) CAUTION: VR-1001 and VR-1002 cross this route at Point C.
(11) CAUTION: VR-1004 crosses this route between Point C and D.
(12) CAUTION: VR-1002/1003 and VR-1004 cross this route 10 NM prior to Point E, with VR-1003 crossing again at Point E.
(13) IR-023 crosses this route from north to south just past Point E, and from NE to SW at Point G.
(14) Route entry/exit times must be made plus/minus 5 minutes or route must be rescheduled.
(15) VR-94 (Shaw AFB, DSN 965-1118/1119) crosses right to left between Points B and C.
(16) VR-1001 (FACSFACJAX, DSN 924/2004/2005) originates S of centerline in corridor between Points E and F.
(17) VR -1003 (FACSFACJAX, DSN 924/2004/2005) crosses left to right just prior to Point F.

FSS's With 100 NM Radius: GNV, MCN

Grand Bay Range R-3008 (A, B, C, C [A], D)

Number *Name*	*Effective* *Altitude*	*Effective* *Times*	*Weather*	*Controlling* *Agency*
R-3008A Grand Bay Weapons Range	Surface to 10,000'	Mon-Fri 1200-0300Z(1)	VFR	USAF Valdosta Approach

(1) One hour earlier during Daylight Savings Time.
Transient units can expect to be capped at 7500'MSL when Moody WG flying is in progress. Requires "real time" hi altitude through Grand Bay RCO. Using Agency – USAF, 347th Rescue WG Moody AFB, GA DSN 460-4544, C229-257-3531/4544.

R-3008B Grand Bay Weapons Range	100'AGL to 10,000'	Mon-Fri 1200-0300Z(1)	VFR	USAF Valdosta Approach

(1)One hour earlier during Daylight Savings Time.
Transient units can expect to be capped at 7500'MSL when Moody WG flying is in progress. Requires "real time" hi altitude through Grand Bay RCO. Using Agency – USAF, 347th Rescue WG Moody AFB, GA DSN 460-4544, C229-257-3531/4544.

R-3008C Grand Bay Weapons Range	500'AGL to 10,000'	Mon-Fri 1200-0300Z(1)	VFR	USAF Valdosta Approach

(1) One hour earlier during Daylight Savings Time
Transient units can expect to be capped at 7500'MSL when Moody WG flying is in progress. Requires "real time" hi altitude through Grand Bay RCO. Using Agency – USAF, , 347th Rescue WG Moody AFB, GA DSN 460-4544, C229-257-3531/4544

R-3008C(A) Grand Bay Weapons Range	Surface to 1500' AGL	Mon-Fri 1200-0300Z(1)	VFR	USAF Valdosta Approach

(1) One hour earlier during Daylight Savings Time
Cir rad 1.00 NM center on N31°03' 31.00" W83° 04' 15.00". This airspace is an exclusion of R-3008C. Using Agency – USAF, 347th Rescue WG Moody AFB, GA DSN 460-4544, C229-257-3531/4544.

R-3008D Grand Bay Weapons Range	10,000' to 22,999'	Mon-Fri 1200-0300Z(1)	VFR	USAF Valdosta Approach

(1) One hour earlier during Daylight Savings Time
Cir rad 1.00 NM center on N31°03' 31.00" W83° 04' 15.00". This airspace is an exclusion of R-3008C. Using Agency – USAF, 347th Rescue WG Moody AFB, GA DSN 460-4544, C229-257-3531/4544

Townsend Range R-3007 (A, B, C, D)

Number *Name*	*Effective* *Altitude*	*Effective* *Times*	*Weather*	*Controlling* *Agency*
R-3007A Townsend Range	Surface to but not including 13,000 Feet MSL	Mon-Fri 1200-0300Z(1)	VFR-IFR	FAA Jacksonville ARTCC

(1)One hour earlier during Daylight Savings Time
Using Agency – GA ANG Savannah ANG Training Site (CRTC) Garden City, GA.

R-3007B Townsend Range	1,200'AGL to but not including 13,000 Feet MSL	Mon-Fri 1200-0300Z(1)	VFR-IFR	FAA Jacksonville ARTCC

(1)One hour earlier during Daylight Savings Time
Using Agency – GA ANG Savannah ANG Training Site (CRTC) Garden City, GA.

R-3007C Townsend Range	100'AGL to but not including 13,000' MSL	Mon-Fri 1200-0300Z(1)	VFR-IFR	FAA Jacksonville ARTCC

(1)One hour earlier during Daylight Savings Time
Using Agency – GA ANG Savannah ANG Training Site (CRTC) Garden City, GA.

R-3007D Townsend Range	13,000' MSL to FL 250	Mon-Fri 1200-0300Z(1)	VFR-IFR	FAA Jacksonville ARTCC

(1)One hour earlier during Daylight Savings Time
Using Agency – GA ANG Savannah ANG Training Site (CRTC) Garden City, GA.

Military Operations Areas

Airspace	*Floor*	*Ceiling*	*Responsible ARTCC[1]*
Moody 1	8,000’ MSL	UTBNI[2] 18,000’ MSL	Jacksonville
Moody 2 North	500’ AGL	UTBNI[2] 18,000’ MSL	Jacksonville
Moody 2 South	100’ AGL	UTBNI[2] 18,000’ MSL	Jacksonville
Live Oak	8,000’ MSL	UTBNI[2] 18,000’ MSL	Jacksonville
Bulldog A	500’ AGL	UTBNI[2] 18,000’ MSL	Atlanta
Bulldog B	10,000’ MSL	UTBNI[2] 18,000’ MSL	Atlanta

[1]ARTCC – Air Route Traffic Control Center

[2]UTBNI – Up To, But Not Including

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