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STAFF SUMMARY SHEET

	TO	ACTION	SIGNATURE (Surname), GRADE AND DATE		TO	ACTION	SIGNATURE (Surname), GRADE AND DATE
1	CES/CD	Coord	Klepper 27Jun03	6	MSG/CCE	Review	Emilia, 0-7, 17 JUN 03
2	CES/CC	Coord	Garcia, LtCol 27Jun03	7	MSG/CD	Coord	
3	RQW/JA	Coord	Rcvd 9Jul 10Jul03	8	MSG/CC	Coord	LtCol 17Jul
4	RQW/SE	Coord	For Clark 17Jul03	9	RQW/CCE	Review	Klobert 24Jul03
5	RQW/PA	Coord	Reagan, MSgt 17Jul03	10	RQW/CV	Sign	28

SURNAME OF ACTION OFFICER AND GRADE	SYMBOL	PHONE	TYPIST'S INITIALS	SUSPENSE DATE
Lee, GS-12	CES/CEVA	7-5881	gwl	

SUBJECT	DATE
Approval of Release of Draft Environmental Documents -- Installation Flightline Fence -- for Public Review	27 Jun 03

SUMMARY

1. Tab 1 is the Draft Finding of No Significant Impact (FONSI) for the Installation Flightline Fence project. Tab 2 is the Draft Environmental Assessment (EA) for the same project. Tab 3 is the news release for the same project.

2. As per 32 Code of Federal Regulations (CFR) 989, The Environmental Impact Analysis Process, the Staff Judge Advocate and the Public Affairs Office should review the attached Environmental Impact Analysis Process (EIAP) documents for legal sufficiency and public affairs issues.

3. As per 32 CFR 989, a public review period, including notification of local governments and the Georgia State Clearinghouse and consultation with appropriate state and federal agencies, must be conducted on all draft FONSIs and EAs. All comments received during this review period must be addressed in the final EA for the project.

4. As per 32 CFR 989, the release of environmental documents for review by the public and the approval of final environmental documents by the Chairman of the Environmental Protection Committee does not obligate the Air Force in any way to conduct the proposed action or any of the alternatives. The purpose of the EA and FONSI is merely to document that environment impacts were considered prior to implementation of any federal action.

5. As per 32 CFR 989, RQW/CV is authorized, as Chairman of the Environmental Protection Committee, to authorize the release of the draft unsigned FONSI and EA for public review and comment.

6. RECOMMENDATION: RQW/CV approve the release of the draft FONSI and EA for public review and comment by signing SSS where indicated.

JOHN B. MITCHELL
Environmental Flight Chief

Tabs
1. Finding of No Significant Impact (FONSI)
2. Environmental Assessment (EA)
3. News Release

AF FORM 1768, SEP 84 *(EF-V4)* *(FORM FLO2)* PREVIOUS EDITION WILL BE USED.

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
28 JUL 2003		**00-00-2003 to 00-00-2003**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Installation Flightline Fence Finding of No Significant Impact (FONSI)	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **347th Civil Engineer Squadron (347 CES/CEVA),3485 Georgia Street,Moody AFB,GA,31699**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT **unclassified**	b. ABSTRACT **unclassified**	c. THIS PAGE **unclassified**	**Same as Report (SAR)**	**37**	

INSTALLATION FLIGHTLINE FENCE

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

1.0 NAME OF ACTION

Installation Flightline Fence, Moody Air Force Base, Georgia.

2.0 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action

Moody AFB proposes to construct and install a chain link fence around the perimeter of the airfield and flightline to mark the legal and physical boundaries of the restricted areas as a force protection initiative. The fence will consist of six-foot chain link with 3 strands of barbed wire across the top and with 12 gates. The fence will be installed approximately 5 to 15 feet from the existing paved road on all sides.

2.2 Alternatives

The three alternatives to the proposed action are: A) alternative route to avoid forested area in southeast corner of airfield; B) alternative route to follow 1,000-foot clear zone through the forested area in southeast corner of airfield; and, C) the no action alternative.

3.0 SUMMARY OF ENVIRONMENTAL IMPACTS

3.1 PROPOSED ACTION

There would not be any significant impacts to the environment as a result of implementation of the proposed action.

3.2 Alternative A – Routing to Avoid Forested Area

There would not be any significant environmental impacts as a result of implementation of this alternative. However, an airfield waiver would be necessary to allow the fence to be constructed within 1,000 feet of the active runways.

3.3 Alternative B – Routing to Follow Clear Zone Line

This alternative would result in negative impacts to wetland areas and an archeological site.

3.3 Alternative C -- No Action Alternative

Under the No Action Alternative, there would be no significant impacts to the environment.

4.0 CONCLUSION

The attached EA was prepared and evaluated pursuant to the National Environmental Policy Act (Public Law 91-190, 42 U.S.C. 4321 *et seq.*) and according to AFI (Air Force Instruction) 32-7061, *The Environmental Impact Analysis Process*. I have concluded that the construction and installation of a chain link fence around the Moody AFB airfield and flightline do 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.

Howard Short

HOWARD SHORT, Colonel, USAF
Chairperson, 347 RQW Environmental Protection Committee

28 Jul 03
Date

INSTALLATION FLIGHTLINE FENCE

ENVIRONMENTAL ASSESSMENT

1.0 PUPROSE OF AND NEED FOR THE PROPOSED ACTION

1.1 Background, Purpose, and Need for the Proposed Action

Moody Air Force Base (AFB), Georgia proposes to install a chain link fence around the perimeter of its existing flightline in order to mark the legal and physical boundaries of Moody AFB's airfield restricted areas as well as increase the security of the airfield. These restricted areas designate the physical boundary where use of deadly force is authorized to stop intruders if the boundary is breached. Currently there are no flightline fencing/barriers that mark the legal and physical boundaries of Moody AFB's airfield restricted areas. The proposed action consists of installing a six-foot chain-linked fence topped with three strands of barbed wire along with twelve motorized access gates.

1.2 Location of the Proposed Action

Moody Air Force Base is located in south-central Georgia approximately 10 miles northeast of Valdosta. The flightline is located in the central portion of main base. The proposed action will occur along Perimeter and Burma roads as it borders the flightline on three sides and buildings and other structures on the remaining side. The fence would be approximately 5 -15 feet from the paved road. Perimeter road lies north and east of the flightline and Burma Road to the south. The fence would also lie between buildings bordering the flightline to the west. Refer to Figures 1 and 2 for the general location of Moody AFB and the general location of the proposed project.

1.3 Decision to be Made and the Decision Maker

The decision to be made is whether the proposed flightline fence installation project would result in significant environmental impacts. The decision maker is the Chairman of the Environmental Protection Committee for Moody AFB.

1.4 Scope of the Environmental Review

Issues, which could potentially be impacted by the proposed action, include:

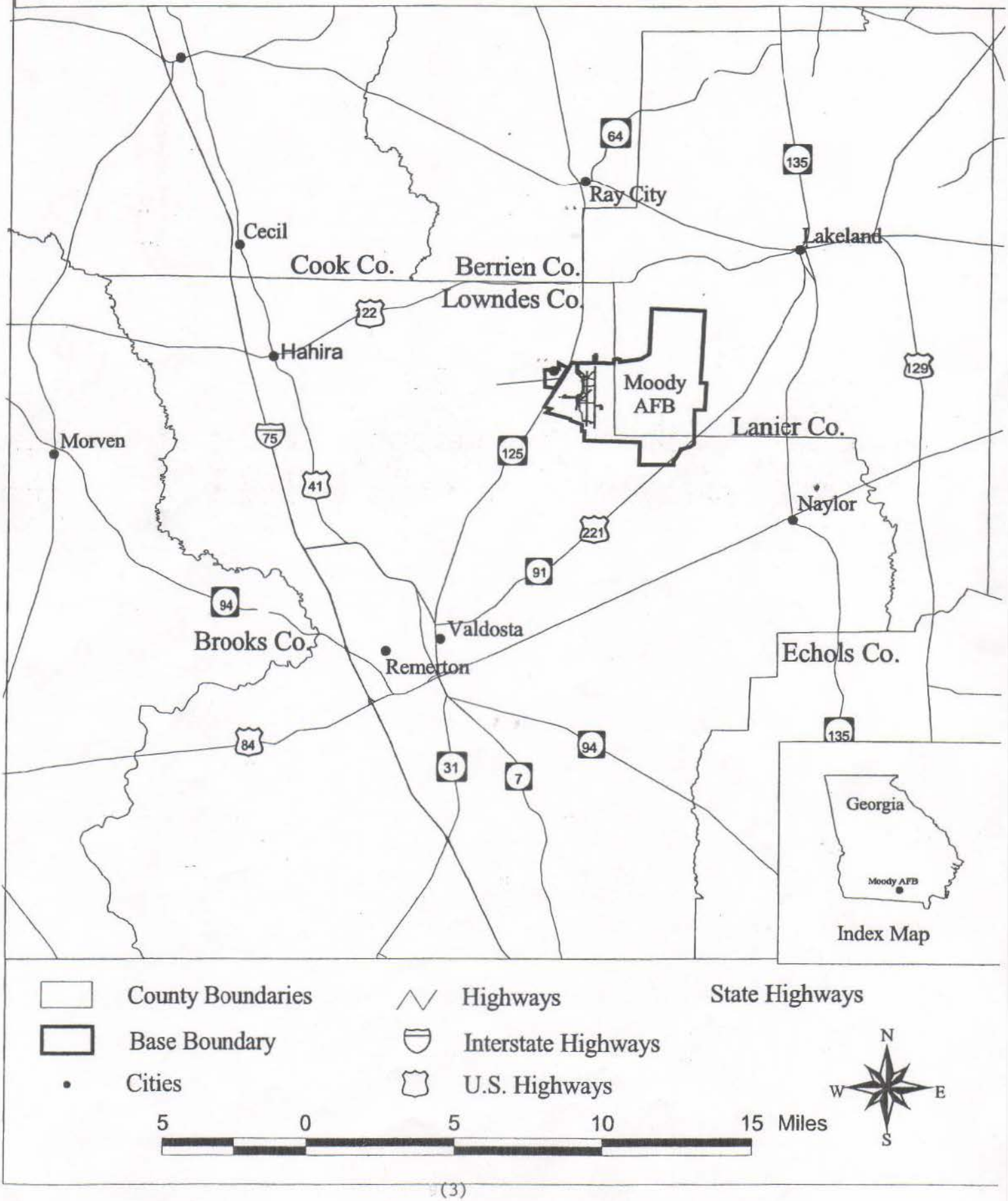
- Air Resources
- Wildlife Resources
- Vegetation Resources
- Cultural Resources
- Environmental Restoration Program (ERP) Sites
- Soil Resources
- Water Resources/Wetlands
- Compliance Resources

1.5 Applicable Regulations Required

The command at Moody AFB has the responsibility to ensure that all projects comply with the National Environmental Policy Act (NEPA), as well as the Clean Air Act, the Clean Water Act, the Endangered Species Act, Executive Order 11990, Executive Order 13112, the National Historic Preservation Act, the Resource Conservation and Recovery Act (RCRA), and other applicable environmental laws and regulations.

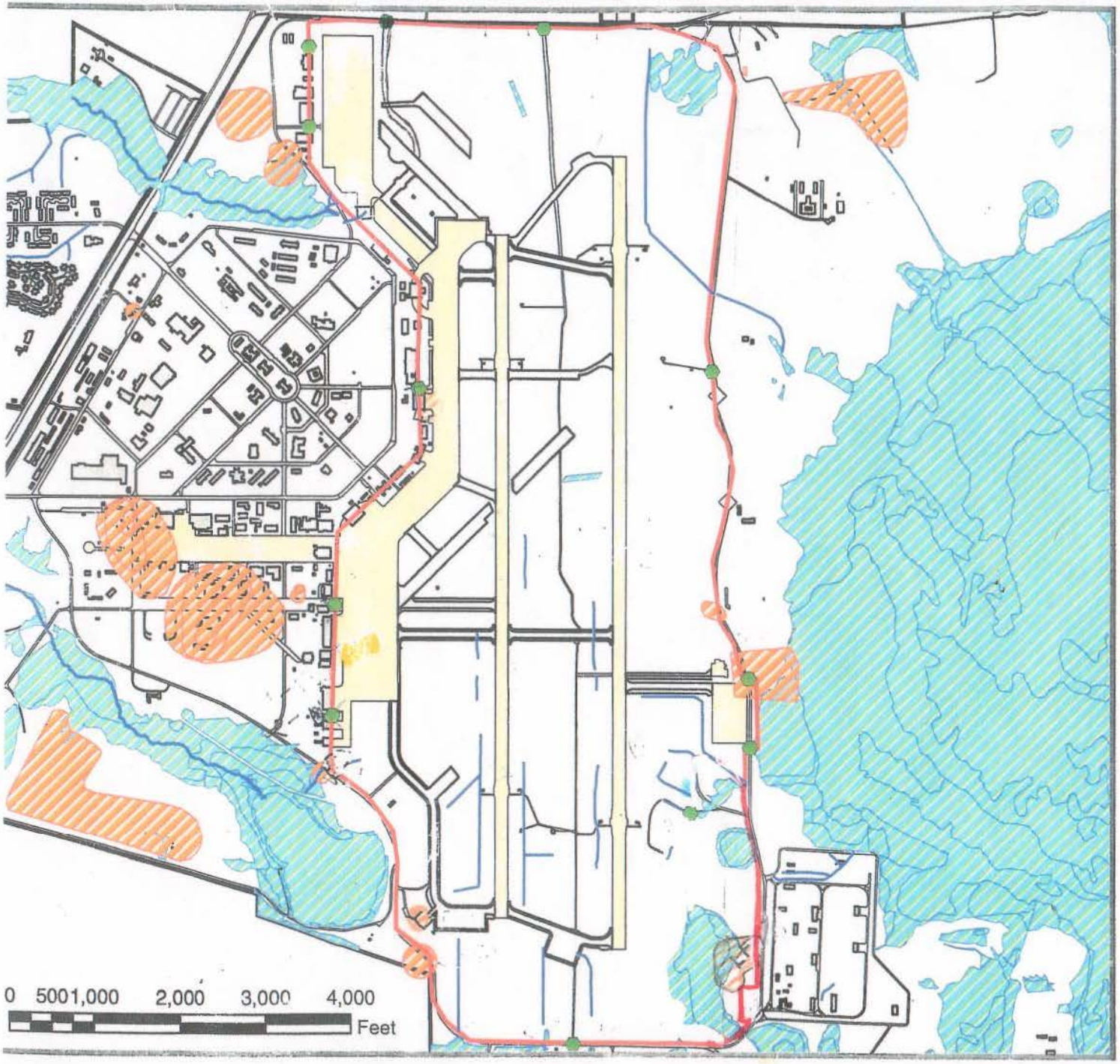
FIGURE 1

Regional Map of South Georgia



Flightline Fence: Environmental Concerns

Figure 2



Legend

- Flightline Fence
- Gates
- Wetlands
- ERP Sites
- Streams
- Airfield
- Buildings
- Roads
- Installation Boundary

N

4 December 2002 RME

2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

2.1 Minimum Selection Criteria

The Air Force considered several alternatives to the Proposed Action. In the initial screening of these alternatives, the Air Force took into consideration minimum selection criteria. Only those alternatives that met these criteria were considered suitable for detailed analysis. The selection criteria were in conformance to existing laws, Air Combat Command (ACC) and Department of the Air Force (AF) policy and regulations, and the Integrated Natural Resources Management Plan. Physical property requirements include a structure that lies parallel to the existing road north, south, and east of the airfield and placed between buildings and other structures on the west.

2.2 Detailed Description of Proposed Action

The proposed action consists of installing a six-foot chain link fence along the boundary of Moody AFB's flightline. The fence will be 9 gauge, Type A consisting of 12 gates built on concrete slabs, with posts at a depth of not more than 3 feet. The fence will have an out-rigging consisting of 3 strands of barbed wire strung across its top for its entire length. (Refer to Figure3)

The fence will be installed approximately 5 to 15 feet from the existing road on its flight line side. At the north and northeast side of the airfield, the jogging trail would be outside of the fence line. At the Hot Cargo Pad, gates will be installed on Perimeter Road and the fence will cross to the east side of Perimeter Road and run south along the east side of the right-of-way. The fence line will cross back over Perimeter road west, just south of the Hot Cargo pad. It would continue south along the west side of the road and go behind the Ammo facilities property and continue to the southeast corner. From the southeast corner of the airfield, the fence will run west along Burma road and to the inside of the jogging trail. The western boundary of the flight line is indicated by the presence of several buildings located on the main installation. The fence will be installed between existing buildings that will serve as the flightline's west boundary.

The 12 gates will be either double or single swing gates established at critical sites along the proposed fence line. The only permanent opening in the fence boundary will be located at Dog Row. Since this location receives heavy use, including transport of aircraft, it requires a minimum opening of 120 feet. A sensor package using beam control will be installed for the purpose of security instead of a 120-foot long gate.

2.3 Alternatives

2.3.1 Alternative A – Action Alternative

As mentioned in the proposed action, a 6-foot fence would be constructed completely around the flightline. Unlike the preferred action, the fenceline on the southeast corner would run north and west of the existing timber stand. Therefore the timber stand would be completely left out of the fenceline boundary of the flightline. No other changes to the layout of the fenceline would be made. Under this alternative the fence would be located adjacent to a wetland site located in the timber stand east of where the fence would be located. This action would require routine control of vegetation and monitoring for damage from storms or other circumstances that may occur.

2.3.1 **Alternative B – Action Alternative**

Under this alternative, a 6-foot fence would also be constructed completely around the existing flightline. Like the preferred alternative, this action would meet AFI 31-101 requirements by protecting a controlled area and identifying the flightline boundary. This action differs from alternative A in that the fence line on the southeast portion would be placed 1300 feet from the east runway (36-R) to meet clearance requirements related to distance and slope. This would require that approximately two thirds of the existing timber stand, which runs north and south, including 15 acres of wetlands, be cut and removed. The fence line would be located north and west of the remaining, uncut timber. This action would also require periodic maintenance and up-keep such as vegetation control and replacement of damaged or worn out parts. (Refer to Figure 4)

2.3.2 Alternative C – No Action Alternative

Under this alternative, no fence would be built. The perimeter of the flightline would stay unmarked and left in its present condition. Moody AFB will continue to be in violation of the 'Air Force Installation Security Program' (UFC 3-260-01) that governs boundary/fencing barrier requirements. The flightline would remain in a limited state of security if adverse action from enemy forces were to threaten or bring harm to human lives or government property.

Chain-link fence as described in the preferred action would be 6 feet tall with 3 strands of barbed wire on top of the main structure positioned outward.

Figure 3

N

FENCELINE PROJECT – ALTERNATIVE B

Area to be clear-cut with alternative B - Significant impact would occur with the disturbance of the cultural site located in the north half of the timber stand and adverse impact to 15 acres of wetlands throughout the west and south portion of the stand.

Figure 4

3.0 AFFECTED ENVIRONMENT

3.1 Introduction

The physical and biological components of Moody Air Force Base (AFB) are described in Moody AFB's INRMP and in the Moody AFB Natural Heritage Inventory Final Report. These documents are available for review in the Environmental Flight of the Civil Engineer Squadron. Only information specific to the project will be discussed here.

None of the analyzed alternatives would have significant negative impacts to areas of critical environmental concern, prime or unique farmlands, coastal zones, wilderness areas, floodplains, wild or scenic rivers, or to Native American religious concerns.

3.2 Air Resources

The Clean Air Act dictates that National Ambient Air Quality Standards (NAAQS), established by the Environmental Protection Agency, must be maintained nationwide. The NAAQS have included standards for six "criteria" pollutants: ozone, nitrogen oxide, carbon monoxide, particulate matter (10 microns or less), sulfur dioxide, and lead. Lowndes County is an attainment area for all NAAQS "criteria" pollutants. Specifically, in regards to the Clean Air Act and regulation of installation emissions, Moody AFB is classified as a major source of criteria pollutants and has a Title V permit. In addition, Moody AFB operates under a Synthetic Minor Permit for Hazardous Air Pollutants (HAPs); that permit was issued on 31 August 1998.

3.3 Wildlife Resources

Wildlife resources on the site would primarily be limited to migratory songbirds typically found in urban and suburban settings, such as northern mockingbirds, brown thrashers, American robins, pine warblers, yellow-rumped warblers, and blue jays. Other transient migratory species would occur seasonally, such as cedar waxwings and ruby-crowned kinglets. Because of limited natural nesting sites, the area has minimum opportunity for nesting by songbirds.

White-tailed deer have been spotted, occasionally, grazing in and around the flightline area. Other wildlife species that may occur transiently on the site would include the Virginia opossum, armadillo, coyote and the raccoon.

The proposed project area was surveyed for the presence of rare, threatened, and endangered (RTE) species in 1994 by biologists with The Nature Conservancy, and again in 1995 by biologists with Geo-Marine. No RTE species have ever been recorded as occurring on the site.

3.4 Vegetation Resources

The proposed project lies totally within the airfield boundary as designated by paved roads and

existing development. Due to unobstructed line-of-site requirements, nearly the entire airfield is made up of a grassland habitat, which includes local herbs and grasses. The species found to be most prevalent in the proposed project area include bahia grass (*Paspalum notatum*), broomsedge (*Andropogon virginicus*), common carpetgrass (*Axonopus affinis*), bermudagrass (*Cynodon dactylon*), centipede grass (*Eremochloa ophiuroides*) and maidencane (*Panicum hemitomen*).

A natural stand of mixed hardwood and pine (slash, loblolly) are located at the southeast portion of the airfield along the south end of Perimeter road. Immediately south of the hardwood/pine stand is a wetlands area that is comprised of bald cypress, black gum and red maple. A small stand of loblolly pine lies on the northwest corner of the proposed project and would be just west of the new fence.

3.5 Cultural Resources

The cultural history of Moody AFB extends from approximately 8000 years ago up through the present, and includes Native American settlement sites, 19th century agricultural homesteads, and World War II structures. A Phase I Archeological Survey of Moody AFB was accomplished in 1995. One significant cultural site was recorded in the proposed project area. The archeological site recorded within the area of potential effect (APE) is located about 300 feet east of the APE (Site 9LW71), or directly in the path of the project, depending on the Alternative. In 1999 this site was determined to be potentially eligible for National Register Listing. A historic building survey was conducted in 1999, and the nearest historic building potentially eligible for National Register Listing is the Water Tower (Building 618), located approximately 400 feet west of the proposed project location. (Refer to Figure 5)

3.6 Environmental Restoration Program (ERP) Sites

There are a number of ERP sites that would be directly or indirectly impacted by the flightline fence project. The ERP sites that would be impacted by the proposed fence line are: LF-01, FT-06, SD-16, SS-29, ST-12, LF-05, FT-07 and LF-37.

3.7 Soil Resources

The soils underlying the proposed project area are classified as Tifton loamy sand (TfA and TfB), Tifton-Urban land complex (TuB), Grady sandy loam (Gr), Pelham loamy sand (Pe), Leefield loamy sand (Le), Olustee sand (Oa) and Stilson loamy sand (Se). These soils range from poorly drained to well drained with 0 to 5 percent slopes.

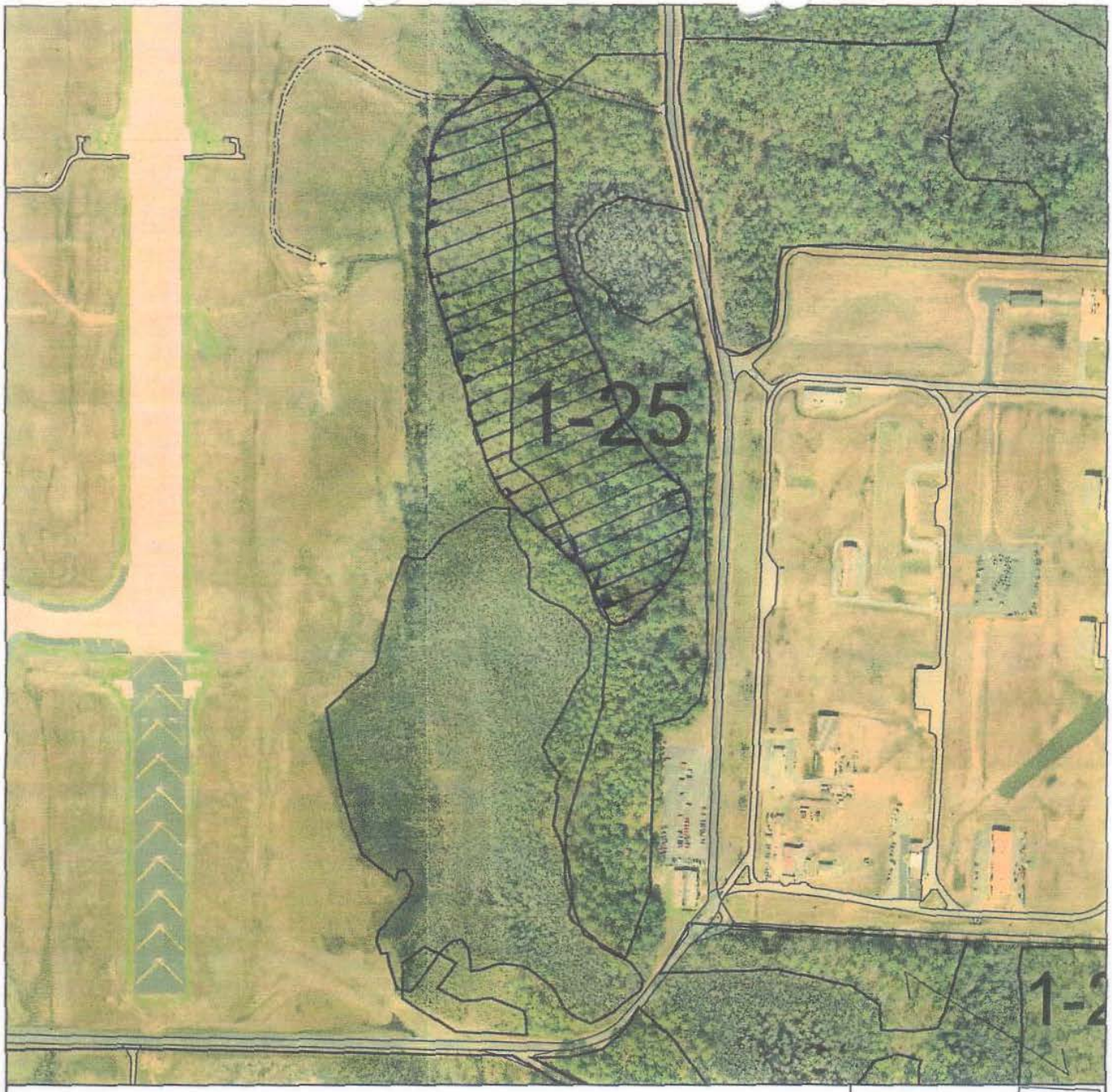
The soil is low to moderate in natural fertility, low to moderate in organic matter content, and strongly to very strongly acidic. This soil is not classified as a prime or unique farmland according to the Natural Resources Conservation Service (NRCS), U.S. Department of Agriculture. Additionally, this soil is not classified as a hydric (wetland) soil by the NRCS or the U.S. Fish and Wildlife Service (USFWS).

3.8 Water and Wetlands

The project area drains into the Grand Bay system, which eventually leads to the Suwannee River and the Gulf of Mexico. Wetland boundaries were delineated in the fall of 1997. The proposed fence path would run along the west boundary of two wetland areas located in the east and southeast portion of the flightline. There are three other locations where the proposed fence line would be located relatively close or adjacent to wetland sites (refer to figure 2). There are nine small tributaries that drain into permanent creeks and wetland sites that would cross the proposed fence line.

3.9 Compliance Resources

There are four above ground storage tanks and four underground storage tanks that are located in the vicinity of the proposed action construction area. A retention pond is located in close proximity to the proposed fence line and lies between the 41st Rescue Squadron and the 71st Rescue Squadron.



LEGEND

Forest Stand Boundary

Roads

paved

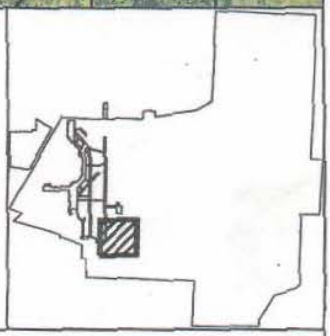
CULTURAL SITE

SCALE

200 0 200 400 600 800 Feet

N

FIGURE 5



347th Civil Engineer Squadron - GIS

Forest Stand 1-25

MOODY AIR FORCE BASE, GEORGIA (ACC)

17 JAN 2002

c:\documents\thinelvalforest stand pictures.apr

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 Air Resources

4.1.1 Proposed Action

The construction of the chain-linked fence would lead to temporary increases in air emissions as a result of the equipment used to install the posts. However, these air emissions will be of short-term duration and will be present only during the initial construction of the fence. Therefore, these emissions are not considered a significant impact on overall air resources on the installation.

4.1.2 Alternative A

The impacts to air resources under this alternative would be similar to the proposed action. Therefore, there will be no significant impacts to air resources as a result of this alternative.

4.1.3 Alternative B

The impacts to air resources under this alternative would also be similar to the proposed action. Therefore, there will be no significant impacts to air resources as a result of this alternative.

4.1.4 Alternative C - No Action Alternative

There would be no impacts to air resources as a result of this alternative.

4.2 Wildlife Resources

4.2.1 Proposed Action

The airfield includes 900 acres of grassland, 2 concrete runways and several small structures throughout. Local deer populations and various small mammals are frequently observed grazing on the different grass and herb species located within the flightline. The proposed fence line would greatly reduce or eliminate the movement of deer and other small mammals and keep them from accessing the flightline area. There may be minor disruptions in the movement of bird populations during and after the construction of the fence because of the presence of humans and equipment, especially during construction, but these will be of limited duration and therefore are not considered significant. However, any reduction in wildlife populations utilizing the flightline as a food source, nesting site or cover would be a favorable impact, especially in regard to safety. Due to the increase of the BASH risk, this action may require the removal of certain wildlife species, such as white-tailed deer and turkey from the timber stand in the southeast corner that would otherwise be trapped from construction of the fenceline.

4.2.2 Alternative A

Under this alternative, the impacts would be similar to those found in the proposed action with the exception of the southeast corner of the proposed project. With this action alternative, there would be little or no impact on the ecosystem associated with the timber stand and wetlands located in the southeast portion of the flightline.

4.2.3 Alternative B

Under this alternative, there would be a negative impact to the timber stand located in the southeast corner of the flightline. Approximately two-thirds of the stand would be removed, which includes a fifteen-acre wetlands area. Native plant and animal species that inhabit the stand would have all cover and shade removed as a result of this alternative.

Under this alternative, wildlife residing in the wetland area on the southeast end of the airfield would have to be removed prior to fence construction to ensure that they do not become entrapped within the boundaries of the fence or destroyed due to loss of habitat.

4.2.4 Alternative C- No Action Alternative

There would be no impacts to wildlife resources as a result of this alternative.

4.3 Vegetation Resources

4.3.1 Proposed Action

The proposed action would produce minor disturbances in the vegetation of the project area during construction. The proposed fenceline would greatly reduce or eliminate grazing of grasses and herbs on the flightline by native wildlife that occasionally use the area as a food source. Therefore, there would be no significant impacts to vegetation resources as a result of the proposed action.

4.3.2 Alternative A

The minor disturbances mentioned in the proposed action would be the same as in this alternative. There would be no significant impacts to vegetation as a result of this action alternative.

4.3.3 Alternative B

The impacts to vegetation resources under this alternative would create a major disturbance to the timber stand on the southeast corner of the flightline. Approximately two-thirds of the timber would be removed with major impacts to the remaining vegetation. Vegetation associated with a 15-acre wetlands habitat would be directly effected. Therefore, negative impacts to vegetation resources on the timber stand on the southeast corner of the fenceline would occur; however, the

remaining portion of the project, like the proposed action, would have no significant impact to vegetation as a result of this alternative.

4.3.4 Alternative C - No Action Alternative

There would be no impacts to vegetation resources as a result of this alternative.

4.4 Cultural Resources

4.4.1 Proposed Action

Site 9LW71 is located in the timber stand and wetlands area located in the southeast portion of the flightline. Under the proposed action, construction of the fenceline is not expected to impact the site.

The new fenceline would be within view of the only historic structure on Moody AFB, Building 618, the Water Tower. However, construction of the fence would not adversely affect the integrity or character of the Water Tower or its environment.

4.4.2 Alternative A

This action would produce minor disturbances near the western edge of site 9LW71. It is possible that intact components of this site are located in the vicinity of the proposed project, and may be affected by the construction of the project, or the post-project vegetation maintenance. However, the disturbance, if any, to the site is not expected to be adverse.

4.4.3 Alternative B

This alternative would put the fence directly down the north-south axis of site 9LW71, and necessitate the removal of all the timber westward from this axis. The potential for severely disturbing or destroying site 9LW71 is very high with this action, therefore requiring mitigation and archeological excavation of site 9LW71. This alternative would have significant impact to cultural site 9LW71.

4.4.4 Alternative C - No Action Alternative

There would be no impacts to cultural resources as a result of this alternative.

4.5 Environmental Restoration Program (ERP) Sites

4.5.1 Proposed Action

The proposed action would extend over ERP sites (Figure 2). Based on surface soil, subsurface soil, and risk assessments results, it was determined that the following sites have no soil contamination that would pose a risk to human health during the installation of the fence: FT-06, ST-12, SS-27A, SS-29, LF-37 and SS-38.

LF-01 and FT-07 indicate no compounds that would pose a threat to human health. At SD-16, two compounds were detected at concentrations slightly greater than residential preliminary remediation goals. The residential preliminary remediation goals (PRG) are established for a person who lives on the property for a lifetime. The amount of time required to install the fence would be a small fraction of the timeframe assumed for residential preliminary remediation goals. Therefore, data does not indicate a significant level of concern for worker health during the installation of the fence.

Due to limited soil samples relative to the area covered by the fencing, it cannot be guaranteed that contaminated soils will not be encountered while installing the fence posts. However, the contaminated soils would not pose a threat to human health. The fence posts would not be installed to a depth that would necessitate land use controls. Therefore, there would be no significant impacts to ERP sites as a result of the proposed action.

4.5.2. Alternative A

Because this alternative is very similar to the proposed action, the impacts to ERP sites would be nearly identical. Under this alternative, no additional ERP sites would be impacted. Therefore, there would be no significant impacts as a result of this alternative.

4.5.3 Alternative B

Because this alternative is also similar to the proposed action, the impacts to ERP sites would be nearly identical. With this alternative, the only ERP site that would have greater impact than the proposed alternative is LF-37. It has been determined that LF-37 has no soil contamination that would pose a risk to human health during the installation of the fence. Therefore, there would be no significant impacts as a result of this alternative.

4.5.4 Alternative C - No Action Alternative

There would be no impacts to any ERP sites as a result of this alternative.

4.6 Soil Resources

4.6.1 Proposed Action

The soil types in the proposed project area are recognized by the NRCS as being suitable for construction purposes. The provisions of the Georgia Erosion and Sedimentation Law would be followed, and silt fences and other protective techniques would be employed to minimize soil erosion. Therefore, there would be no significant impacts to soil resources as a result of the proposed action.

4.6.2 Alternative A

This alternative is similar to the preferred alternative except for the southeast corner of the flightline. Under this alternative, the fenceline will be adjacent to the wetlands within the timber stand in the southeast corner where soils would be saturated during heavy periods of rainfall. However, there would be no significant impact to soil resources as a result of the proposed action.

4.6.3 Alternative B

Because this alternative is similar to the proposed action, the impacts to soil resources would be identical to the proposed action except the southeast corner. Approximately 15 acres of wetlands would be affected west of where the fenceline would be placed due to clearcutting all trees in this alternative. Adverse impact to the wetlands soil could occur as a result of the logging operation and installation of the fence. There would be no net loss of wetlands and only short term soil disturbance with this action, therefore no significant impacts to soil resources would occur as a result of this alternative.

4.6.4 Alternative C - No Action Alternative

There would be no impacts to soil resources as a result of this alternative.

4.7 Water Resources/Wetlands

4.7.1 Proposed Action

The proposed action would cause only a minor impact to any of the nine tributary crossings located around the flightline. These minor impacts would result from construction of the fence line and routine maintenance. The proposed fence line would be located on the eastern edge of two wetlands site locations near the southeast corner of the flightline. The impact to these two sites would be minor and temporary, until the fence construction is completed. There are no significant impacts to water resources, including wetland sites as a result of the proposed action.

4.7.2 Alternative A

Like the proposed action, this alternative would cause only a minor impact to any of the nine tributary crossings during construction of the fence and during routine maintenance operations. The proposed action will avoid the wetland areas located south of the Hot Cargo Pad. This alternative fence line would be located just west of the wetlands that are a part of the timber stand at the southeast corner of the flightline. Fence construction along the edge of any wetland site would be a minor and temporary impact to the wetlands ecosystem. Therefore, there would be no significant impacts to water resources/wetlands as a result of alternative A.

4.7.3 Alternative B

The major difference in this action as compared to the preferred action is the impact that would occur in the jurisdictional wetlands located in the timber stand at the southeast corner of the flightline. This alternative would cause adverse action to approximately 15 acres of wetlands and therefore require additional action and documentation. The Corps of Engineers would require a 404 permit to be submitted and a 'Finding of No Practicable Alternative' (FONPA) would also be required as an attachment to the FONSI. The latter is a document that may take up to 2 years to acquire. As a result of this action, however, there would be no net loss to any jurisdictional wetlands. Therefore, there would be no significant impacts to water resources and/or wetlands as a result of this alternative.

4.7.4 Alternative C - No Action Alternative

There would be no impacts to water resources and/or wetlands as a result of this alternative.

4.8 Compliance Resources

4.8.1 Proposed Action

There are eight storage tanks and a retention pond that reside in the vicinity of the proposed action project area. In coordination with Mr. Donald Knobloch, Wing Environmental Coordinator, it has been determined that there are four tanks above ground and 4 underground storage tanks that are located in the vicinity of the proposed action. Three of the underground tanks are oil and water separator tanks and the other holds diesel fuel for an emergency generator. Each of the above ground storage tanks hold a different solution. A 1200 gallon purging fluid tank is located next to building 788 and a 1000 gallon tank is located between the E.O.D. building and the Fire Department. Another tank, also between the E.O.D. office and the Fire Department, holds 1000 gallons of aqueous film forming foam (AFFF). The remaining above-ground tank is a large water tank (10,000 gallons +) between the 41st and the 71st Rescue Squadrons. Mr. Knobloch has verified that the fenceline, under the proposed action, would not impact any of the storage tanks or the retention pond located between the 41st and 71st Rescue Squadrons. Therefore, there would be no significant impacts to compliance resources as a result of the proposed action.

4.8.2 Alternative A

Because this alternative is similar to the proposed action, the impacts to compliance resources would be identical. Therefore, there would be no significant impacts to compliance resources as a result of this alternative.

4.8.3 Alternative B

This alternative is identical to the proposed action and alternative A concerning the environmental effects to compliance resources. There would be no significant impacts as a result of this alternative.

4.8.4 Alternative C - No Action Alternative

There would be no impacts to compliance resources as a result of this alternative.

5.0 CUMULATIVE EFFECTS

Cumulative effects in the affected area would depend on the potential environmental impacts resulting from the proposed action and foreseeable actions in the future. Command decisions could effect future actions that may be difficult to assess when determining cumulative effects. Such effects would result from favorable, as well as, adverse impacts.

5.1 Proposed Action Alternative

For the proposed action, the area analyzed for cumulative impacts includes the proposed fenceline and the flightline area within its boundary. Currently the airfield is mowed on a regular basis during spring and summer months. Other control measures include fertilizing and seeding and even aerial herbicide application to control broadleaf plants. These management activities would not change as a result of the proposed action. Vegetation control along the fenceline, however, would require additional action such as the use of weed-eaters or the application of herbicides. The movement of deer and other smaller mammals that frequent the flightline will be greatly reduced or eliminated. However, there is concern of animals being trapped inside the fenceline during and after completion of the project. There would be little or no impact on the usual bird populations that use the area for feeding or breeding. The proposed fence could be used as a perching platform by birds-of-prey while hunting for food.
There would be no significant cumulative impacts identified for the proposed action

5.2 Alternative A

Alternative A is very similar to the proposed action except for the southeast portion of the flightline. Because this alternative has the fence line going north and west of the timber stand, which includes wetlands, the entrapment of wildlife during and after construction of the fence is a minor concern. There are no significant cumulative impacts identified with this alternative.

5.3 Alternative B

The accumulative environmental impacts in this action are the same as in the proposed action except for the timber stand located in the southeast portion of the flightline. As stated in Part 2.3.2 approximately two thirds of the stand would be clear-cut in order to meet Air Force clearing requirements. Approximately 15 acres of wetlands would be included in the clear-cut (4.7.2.) that would cause adverse impact to the local vegetation and wildlife that inhabit the area. After the trees are removed and the remaining slash has been disposed of, the area would require mechanical or herbicide treatment every few years in order to control sprouting hardwoods and other undesirable vegetation. Control burning every 2 to 3 years would also help control unwanted vegetation. There would be no significant cumulative impacts identified with the alternative action.

5.4 Alternative C - No Action Alternative

There would be no cumulative impacts as a result of this alternative.

6.0 LIST OF PREPARERS

Name	Program
Bruce Connell	Forester, Environmental Officer
Rebecca Evans	Natural Resources, Coop student
Don Knobloch	Environmental Coordinator
Johnna Thackston	Archeologist
Lori Combass	Restoration Officer
Patty Steman	Environmental Planner

7.0 LIST OF AGENCIES CONSULTED

Due to the minimal adverse impacts of the proposed action, few outside agencies were consulted. Consultation was conducted with the State Historic Preservation Office of Georgia, the U.S. Fish and Wildlife Service and the Georgia Department of Natural Resources.

8.0 REFERENCES

Environmental Staff, Moody Force Base, CES/CEV, 2000. Integrated Natural Resource Management Plan. I 1-3, II 5-36.

Anderson, Andrea M., Barker, Roy L., 2002. Aquatic Issues: Wetland, Floodplain, and Coastal Zone Law. pp 461-469.

U.S. Department of the Air Force. 2000. Air Force Installation regulations (AFI 31-101). Chapter 20, Equipment and Facilities. pp 132, 146.

U.S. Department of the Air Force. 2001, ETL. AFCESA/CES, Frangibility Zone., Part 5.2-6.3, pp 1-4.

Wharton, Charles H., 1998. Department of Natural Resources, The Natural Environment of Georgia, pp 169-192.

APPENDIX A

PHOTOS

And

SUPPORTING DOCUMENTS

Northwest View of Flightline (jogging trail in the foreground)

North View of Flightline Where Proposed Fence Would Be Located

South View of Flightline

AFI 31-101,
June, 2000

Chapter 20

EQUIPMENT AND FACILITIES

20.1. General Information. This chapter applies to Protection Level 4 resources. The protection of Air Force resources is best accomplished by careful integration of manpower, procedures, and complementary physical protective facilities and equipment (fencing, lighting, locks, IDE, etc.). A clear preference must be made for the use of physical protective facilities and equipment instead of manpower. When as a last resort, manpower is required, reliance must be on owner/user personnel. This chapter addresses general standards and proper planning and programming actions for using facilities and equipment. Specific physical security standards will be addressed in subsequent chapters. The ISC and each commander must use a systems approach in the analysis of physical protection requirements to make sure all elements of the RPP are integrated and complement each other. The ISC must consider the cost of physical protection standards and weigh the cost against other factors, such as sensitivity, criticality, vulnerability, location, and mission of the installation, facility, or resource.

20.2. Fencing. A fence (or any other natural barrier that offers equivalent protection) serves as a legal and physical demarcation of the area boundary. It provides an obstacle to entry that must be breached by an intruder. A breach of the barrier by anyone without authorization is prima fascia evidence of illegal entry. Since a fence serves as a deterrent to the casual intruder, and a legal definition of an area generally excluded to the public, it should be considered a primary aid for resource protection applications. Beyond these functions, a fenceline or any other barrier that is not under periodic observation by owner/user personnel has very limited utility. Heavy investment beyond standard fence criteria contained in this instruction is usually not justified.

20.2.1. Controlled Area Fencing. Except as specified in this instruction, the acquisition of fencing for protecting a controlled area will be governed by the following rules.

20.2.1.1. If the area or resource to be protected does not lend itself to the principles of "deterrence at the area boundary" or "surveillance of the area boundary," then fencing is not effective and may be unnecessary. For example, a controlled area located within a building would not justify fencing the entire building.

20.2.1.2. When fencing is practical and the importance or value of the resource to be protected is significant, fencing is constructed or configured in accordance with **Chapter 23** of this instruction.

20.2.2. Temporary Barriers. A temporary barrier may consist of nothing more than a rope barrier or demarcation line to call attention to the fact that passage is restricted.

20.3. Lighting. The psychological effect of lighting can be an invaluable aid to protecting resources. Unless otherwise specified for PL4 resources, specific requirements for types of lighting will be determined locally and must be included in the Installation Security Plan (ISP). The following guidelines must be considered. The FPWG has determined the type of lighting used will be IAW AFI 31-101, paragraph 20.3.2. The types used will depend on the location and type of resources to be protected.

20.3.1. Design. Interior and exterior lighting systems, including fixtures, lamps, and associated primary and backup power and control components and wiring must be carefully designed. Engineering and security forces personnel must coordinate closely on each phase of lighting projects to ensure all requirements such as illumination levels, uniformity, color rendering, and energy conservation are adequately identified and addressed.

20.3.1.1. All lighting projects must be coordinated with the flying safety office if they might in any way affect night aircraft operations.

20.3.1.2. The effect on vulnerability to air attack and base blackout procedures must be ***AFI 31-101 1 JUNE 2000 133*** considered in areas subject to air attack.

20.3.2. Types of Lighting Systems. Four basic lighting systems may be used depending on the location and type of resource to be protected. Often a combination of two or more types is necessary. Before determining the type of lighting system to be installed, analyze background shading and coloring differences. Dark backgrounds require more illumination than light colored surfaces. Security forces physical security personnel should influence construction plans to achieve the most cost-effective shading for enhanced illumination.

20.3.2.1. Boundary Lighting. Boundary lighting is usually required when the resource to be protected justifies boundary fencing. Boundary lighting covers the area outside the fence or physical barrier so that it will not only expose anyone approaching the area, but will also limit or restrict the vision of anyone outside the area trying to look in.

20.3.2.2. Area Lighting. Area lighting is designed to illuminate the area within the fence or boundary or illuminate the exterior of a building to enhance visibility.

20.3.2.3. Entry Point Lighting. Entry point lighting is used when an entry control point is staffed. It must be especially well lit at an entry point where an entry controller may be required to see and recognize persons at some distance.

20.3.2.4. Special Purpose Lighting. Special purpose lighting may include portable lights, spotlights, searchlights, or ball park lights.

20.3.3. Special Design Considerations. Plan and design lighting systems, switches, power lines, and supporting equipment carefully. Each must be placed so that an intruder cannot defeat the lights by simply turning them off or cutting a power supply.

20.3.4. Replacing Lights. The using agency is responsible for identifying defective or burned out lights. The user will replace these lights within capability or notify civil engineering within 24 hours for repair. Civil Engineering will establish emergency work order status for replacing lights.

20.4. Warning Signs. Warning signs are normally displayed at the boundary of each controlled area, and at each entrance to a controlled area so they can be easily read by persons approaching on foot or in a vehicle.

high-security cylinder (P-43951 or P-43607 series). Security procedures for control of combinations and key-operated padlocks are outlined in AFI 31-401.

23.3.2.4.1.3. (Added) The facility must be checked at least once every 16 hours during non-duty hours.

23.3.2.4.1.4. (Added) Owner/user must have written procedures for protection of the missiles when they are removed from the storage area.

23.3.2.4.1.5. (Added) When demated, classified components will be afforded appropriate protection IAW DoD 5200.1-R and AFI 31-401.

23.3.2.5. Storage structures shall be secured with high security padlocks and hasps.

23.3.2.6. The perimeter of Category I and II storage areas shall be fenced as follows.

23.3.2.6.1. Fence fabric shall be chain link (galvanized, aluminized, or plastic coated woven steel) 2-inch square mesh 9-gauge diameter wire, including coating. In Europe, fencing may be North Atlantic Treaty Organization (NATO) Standard Design Fencing (2.5-3 mm gauge, 76 mm grid opening, 2 meter height, and 3.76 meter post separation).

23.3.2.6.2. The minimum height of the fence fabric shall be 6 feet (excluding mandatory top guard/outrigger) and will extend to within two inches of the ground.

23.3.2.6.3. Posts, braces, and other structural components are located on the inside of the fence fabric.

23.3.2.6.4. Clear zones shall be established and shall extend 12 feet on the outside and 30 feet on the inside (available real estate permitting).

23.3.2.6.5. The perimeter fence shall have a minimum number of vehicular and pedestrian gates, consistent with operational requirements. Unless continuously guarded, gates shall be secured with locking devices approved by the MAJCOMs. Hinge pins shall be welded (or otherwise secured).

23.3.2.6.6. Drainage structures and water passages penetrating the fence having a cross sectional area greater than 90 square inches and a dimension greater than 6 inches shall be barred.

23.3.2.6.7. Exterior building and door lighting shall be provided for all structures storing Category I and II items. The lighting shall be of sufficient intensity to allow detection of unauthorized activity. Switches for exterior lights shall be installed in such a manner that they are accessible only to authorized individuals. The necessity for perimeter lighting shall be determined by the ISC based on the local threat. It has been determined that ball field lighting will be used

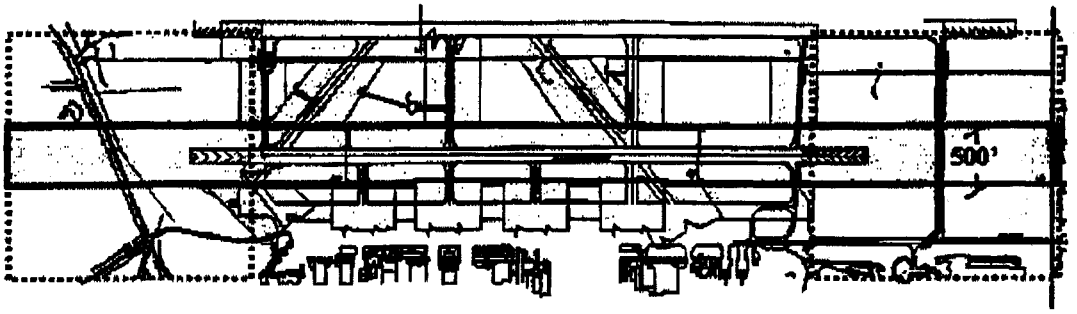
23.3.2.6.8. Primary and backup communications (external and internal) shall be provided to permit notification of emergency conditions. The backup system shall be a different mode than the primary. Radio shall be one of the modes of communication. The communication system shall be tested daily.

ETL 01-20 29 Nov 01

5.1.9. *Semi-Frangible Support* - A two-element support for light fixtures or other devices designed for use in applications where the mounting height is over 12 meters above the ground, or the facility or device is constructed over a body of water. These supports are comprised of a rigid base or foundation with a frangible or LIR support used for the upper portion of the structure. The rigid portion of the structure must be no higher than required to allow performance and maintenance of the apparatus and the frangible or LIR support.

5.2. *Frangibility Zone* - For all Air Force airbases, the zone of frangibility consists of all areas within 76 meters (250 feet) of the runway centerline along its entire length out to a distance of 914 meters (3000 feet) beyond the runway threshold, or to the base boundary. This zone of frangibility also includes a 61-meter (200-foot) lateral distance from all taxiway centerlines for the entire length as shown in figure 1.

Figure 1. Diagram of Frangibility Zone.



5.3. Environmental Loading Conditions. Although required to be frangible in design, structures must be capable of withstanding the environmental conditions to which they will be exposed during normal service. Design of a frangible device or structure must, at a minimum, consider the following loads:

5.3.1. Wind Loading. The structure must be sufficiently strong and rigid enough to meet the operational requirements of normal service at a minimum wind speed of 112 kilometers per hour (70 miles per hour). In addition, the structure should be

capable of surviving at higher wind speeds. This structural survival wind speed is based on the conditions at the airfield's geographical location. In designing for structural survival, the wind loading should be based upon historical wind data for that location or local design code requirements.

5.3.2. Jet Blast. The loading from engine jet blast must not cause the frangible structure to fail or receive permanent deformation. The exhaust contours of a DC-10 aircraft are currently accepted as the most severe conditions. Actual design loading for a particular structure is dependent on the distance and orientation of the structure from the aircraft.

5.3.3. Vibration. The components of the frangible structure must be designed such that no member or combination of members will vibrate under environmental loading at or close to the resonate frequency.

NO Waiver ill be issued

5.4. Frangibility Requirements. All structures within the frangibility zone must be frangible or a MAJCOM-approved waiver is required in accordance with UFC 3-260-01, *Airfield and Heliport Planning and Design*. Structural system frangibility must consider the worst case for frangibility in all applicable directions and be verified through an approved test or analysis procedure if the structure is not already approved as frangible. This test or analysis procedure must clearly demonstrate that the candidate system meets all of the frangibility criteria of this ETL. While waivers may be used for essential structures that cannot be made frangible and for temporary purposes, analysis and test methods must ultimately be used. Guidelines for the analysis and testing of frangible structures are provided in paragraph 5.6. Final acceptance of new frangible system designs must be based upon thoroughly documented analysis and/or test results.

5.5. Acceptance Criteria for Frangibility. In general, the object is considered frangible if it breaks, deforms, or yields readily upon impact and it is judged that the resulting damage to the impacter is such that no hazardous condition exists. The specific acceptance criteria to ensure that these objectives are met are as follows:

5.5.1. Values of Energy and Peak Force. Upon sudden impact (approximately zero rise time), the structural system must be designed to fail at a peak force of no higher then 2275 kilograms (5000 pounds) acting for approximately 0.008 second (8 milliseconds) and absorbing not more than 949 joules (700 foot-pounds) of energy. These criteria were adopted from International Civil Aviation Organization (ICAO) Document 9157, *Aerodrome Design Manual*, and based upon the minimum amount of impact and energy required to affect the flight stability and structural integrity of a Piper Aztec aircraft having a mass of 3000 kilograms (6600 pounds) and traveling at 50 kilometers per hour (27 knots) while taxiing, or 140 kilometers per hour (75 knots) during flight. In addition, the maximum allowable drop in velocity for the design aircraft in flight is 4 kilometers per hour (2 knots).

5.5.2. Determination of Acceptance. Paragraph 5.5.1 provides specific values of energy and peak force for use as acceptance criteria. Determination of acceptance

6.1.1. The first objective must always be to site objects at an airfield so they are not obstacles; whenever feasible, objects must be sited outside the frangibility zone.

6.1.2. When an object must be sited in the frangibility zone, then the object and all of its support structure must be of minimum mass and designed to be frangible to assure that impact will not result in loss of control of the aircraft. In general, objects and fencing should be sited as far away from the runway and taxiway centerlines as practicable.

6.1.3. In cases where frangible design of equipment is impractical or jeopardizes operational performance, the equipment should be positioned so as not to present a hazard to the aircraft. For example, the instrument landing system (ILS) localizer equipment may be segmented so that only the frangible antenna is on the extended runway centerline and the transmitter housing is located to one side of the centerline, beyond the mandatory area of frangibility.

6.2. Frangible Objects. The following objects will be made frangible:

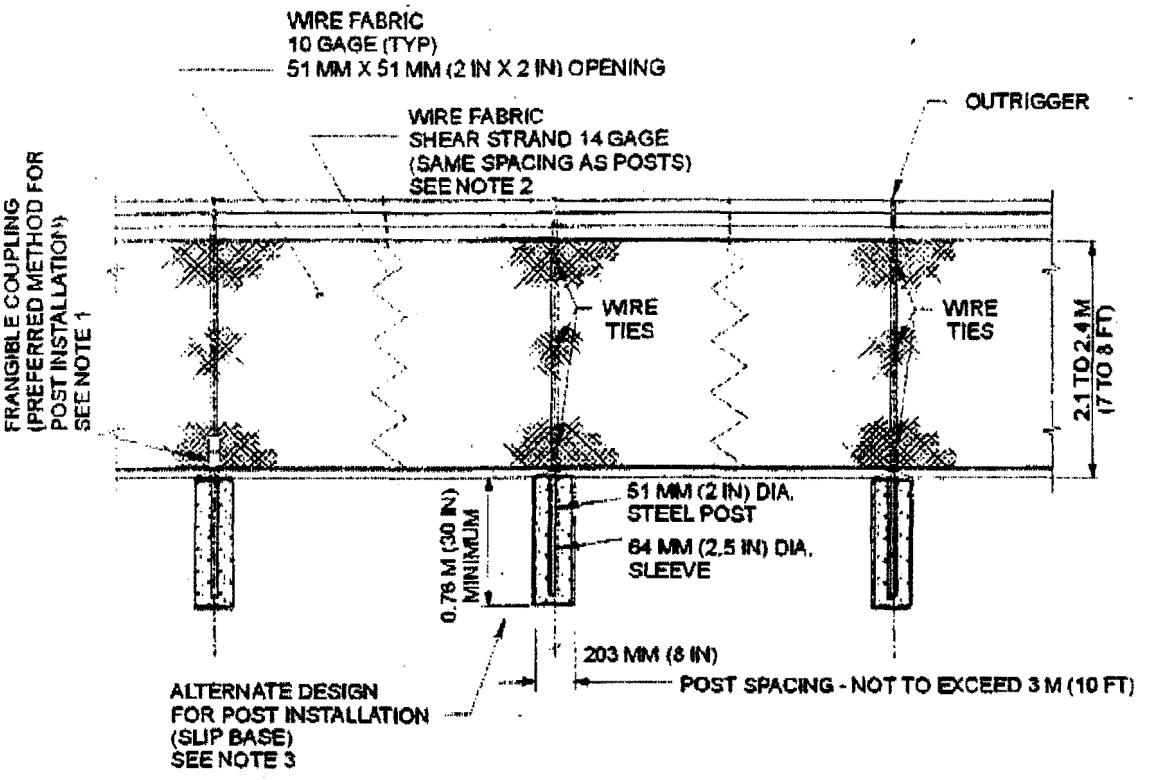
- Elevated runway, taxiway, and stop-way lights
- Approach lighting systems
- Visual approach slope indicator systems
- Airfield signs and markers
- Wind direction indicators
- ILS localizers
- ILS glide path
- MLS (microwave landing system) approach azimuth equipment
- MLS approach elevation equipment
- Radar reflectors
- Anemometers
- Ceilometers
- Transmissometers
- Security fencing
- Vehicle control signs and traffic lights

6.3. Operational Requirements. It is expected that a frangible structure will deflect when exposed to environmental loads, but it is important that this structural deflection not affect the signal quality of the navigational aid the structure supports. The following deflection tolerances must be maintained with respect to the navigational aid that is supported:

6.3.1. Approach Light Systems. Environmental loading should not cause the structure to deflect such that the light beam exceeds 2 degrees of deflection in the vertical axis and 5 degrees of deflection in the horizontal axis.

6.3.2. Wind Direction Indicators. No special deflection tolerances are required.

Figure 8. Frangible Fence.



1. FENCE POSTS FITTED WITH FRANGIBLE COUPLINGS IS THE PREFERRED METHOD OF INSTALLATION.

2. MULTIPLE SHEAR STRANDS (IN WIRE FABRIC) ARE NEEDED TO MITIGATE AIRCRAFT RIDEUP OR CHANGE IN DIRECTION. TYPICAL CHAIN LINK FENCE FABRIC IS GAGE 10. THE SHEAR STRAND MUST BE A MAXIMUM OF GAGE 14.

3. THE FEDERAL HIGHWAY ADMINISTRATION (FHA) CONSIDERS THE 51-MM (2-IN) STEEL PIPE WITH 64-MM (2.5-IN) PIPE SLEEVE (SLIP BASE) AS "CRASHWORTHY."