Final

Environmental Assessment Construction and Operation of Aircraft Maintenance Hangar Project Number UHHZ023005

78th Civil Engineer Group, Environmental Management Division
Robins Air Force Base, Georgia

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FINDING OF NO SIGNIFICANT IMPACT
CONSTRUCTION AND OPERATION OF
AIRCRAFT MAINTENANCE HANGAR

Background and Purpose - 78th Civil Engineer Group, Environmental Management Division (78 CEG/CEV) has conducted an Environmental Assessment (EA) to address the potential effects of construction and operation of a new Aircraft Maintenance Hangar at Robins Air Force Base (AFB). The proposed Aircraft Maintenance Hangar will provide a controlled environment facility that consolidates efforts for the maintenance and modernization/upgrade of C-130 and C-17 cargo aircraft.

Additional inside maintenance dock positions are needed for efficient maintenance of cargo aircraft. An adequate number of inside dock spaces does not currently exist; therefore, several aircraft undergo maintenance outside. For these aircraft, weather delays (rain, wind over 20 knots, and lightning within 5 miles) increase the number of aircraft flow days required for maintenance. Inside work provides a safer, more optimal working environment for the mechanics, and thus, a higher quality of work.

Two alternatives were considered in the EA: the Proposed Action and the No-Action Alternative. Other alternatives initially considered failed to meet criteria for the project and were not evaluated in the EA. These failed alternatives included the placement of the Aircraft Maintenance Hangar in three alternate locations at Robins AFB. However, because these alternate locations resulted in the displacement of existing support equipment, ramp space and storage space; would not allow for the future expansion of the hangar; and would have unacceptable height restrictions for the proposed new hangar (rendering it not tall enough to accommodate C-17 aircraft), these alternatives were therefore eliminated from further evaluation.

Description of the Proposed Action - The Proposed Action consists of construction of the new Aircraft Maintenance Hangar and transfer of maintenance operations currently conducted outside by 402nd Aircraft Maintenance Group (AMXG).

The proposed site for the new Aircraft Maintenance Hangar contains approximately 15 acres of land located on the northern portion of Robins AFB at the southeastern corner of Perimeter Road and Eagle Street Extension, immediately west of Taxiway C at the airfield. The proposed site currently consists of mowed grassy field; an asphalt-paved road currently used for overflow storage of moveable equipment; stockpiled fill/soil materials; and wooded land. The northwestern portion of the site is occupied by a storm water detention pond, an unpaved access road and a small storage trailer.

Aircraft maintenance operations currently conducted outside between Buildings 91 and 86 by 402nd AMXG would be relocated to the new Aircraft Maintenance Hangar. The new Aircraft Maintenance Hanger would consist of a 97,000-square-foot, single-story, multi-bay aircraft hangar constructed with a concrete slab foundation/floor slab, structural steel frame and masonry walls, and a metal roofing system. The planned aircraft maintenance operations would include the removal, maintenance and reinstallation of: engines/propellers, control surfaces, outboard wings, vertical/horizontal stabilizers, ramp/aft doors, wing stands and center box wing structure.

All maintenance operations would be performed on previously defueled and unarmed aircraft. Support functions to be included within the Aircraft Maintenance Hangar include: administrative offices, equipment storage, technical operations libraries, an employee breakroom, employee restroom facilities and building utilities.

Approximately 200 personnel would work in the Aircraft Maintenance Hangar, which would operate 24 hours a day (two shifts – day and swing), seven days a week. Approximately 120 personnel would be assigned to the day shift (30 personnel per aircraft with four aircraft), and 60 personnel would be assigned to the swing shift (15 personnel per aircraft, with four aircraft). An additional 20 to 30 office personnel would be located at the hangar. Approximately 170 of the total 200 personnel would be new civilian personnel hired for the increased workload anticipated at the hangar.

Description of the No-Action Alternative - Under the No-Action Alternative, no construction related to the Aircraft Maintenance Hangar would occur. 402nd AMXG operations would continue outside as they do at present. Without additional indoor dock spaces, the maintenance of aircraft would continue to be hampered by weather-related delays. Less than optimal aircraft maintenance and repair times would continue leading to increased costs and delays in returning the aircraft back to the owning command/war fighter.

Anticipated Environmental Effects - The EA describes current environmental conditions at the proposed construction site and the potential environmental effects of conducting the No-Action Alternative and Proposed Action. Implementation of the No-Action Alternative would not result in significant adverse impacts or significant beneficial impacts to the environment and socioeconomy. Implementation of the Proposed Action would result in no or minimal impacts on the following resources and elements: topography, surface waters, floodplains, wetlands, groundwater, water supply, drinking water, toxic materials, cultural resources, safety and transportation. Implementation of the Proposed Action would result in insignificant adverse impacts or beneficial impacts to the remaining resources and elements, specifically storm water, soils and biological environment. These insignificant adverse impacts include the probable re-design of the existing storm water detention pond, the relocation of jet fuel (JP8) lines that traverse the site in the area planned for the construction of the new hangar building and the removal of approximately 4,000 square feet of trees (hardwoods and pines) from the southwestern portion of the site.

Construction of the hangar would not cause significant adverse impacts to surface waters because the base uses Best Management Practices (BMPs) during the course of day-to-day operations. The contractors would use BMPs such as silt fencing, hay bales and erosion blankets during the construction of the Aircraft Maintenance Hangar to control storm water runoff or land disturbance so as not to cause significant adverse impacts. The existing storm water detention pond area would be reconfigured, if required for development of the site, to sufficiently delay runoff of surface water so as not to cause significant adverse impacts. The contractor would develop and implement appropriate plans, obtain all appropriate permits, and dispose of waste appropriately under governing regulations, thus causing only temporary and insignificant effects to air quality, waste management, noise and traffic. The Proposed Action would produce a positive effect on the socioeconomy, as construction expenditures represented by the proposed facility would provide a short-term economic stimulus to the region’s economy and the hiring of approximately 170 new civilian personnel would provide a long-term economic benefit to the

region's economy. The Proposed Action would also produce a long-term positive effect on worker safety, as aircraft maintenance operations would be brought inside into a controlled environment facility.

Cumulative impacts to the environment resulting from additional projects that are proposed, ongoing, recently completed, or anticipated to be implemented in the near future also received evaluation. The most notable cumulative impact resulting from the construction of new facilities in the area of the Proposed Action would be cumulative increases in storm water runoff due to increased impermeable surface area; however, when considered in conjunction with the implementation of low impact development (LID) design techniques, these cumulative increases in storm water runoff would not cause significant negative effects to surface waters. In addition, Robins AFB's day-to-day operations, and plans to use BMPs would control land disturbance and storm water runoff. Furthermore, the cumulative effects of the Proposed Action, when added to other past, present, and reasonably foreseeable future actions, were also evaluated and found to be insignificant, because the remaining resources and elements would not be significantly affected under the Proposed Action, and the impacts when added to other past, present, and reasonably foreseeable future actions would not be significant.

A notice was published on 19 January 2008 in the *Houston Home Journal* inviting the public to review and comment upon the Draft Final EA; no comments were received within the 30-day review period. A request was also submitted to the Georgia State Clearinghouse on 11 March 2008 requesting review by various state agencies with a review period of 30 days. Responses were received from the Georgia Department of Natural Resources (DNR) Historic Preservation Division and the Georgia DNR Environmental Protection Division Director's Office and are addressed in the Final EA; all agency consultation is complete.

Conclusion

Detailed evaluation was conducted to determine potential adverse effects to the human, physical and natural environment, as presented in the *Environmental Assessment, Construction and Operation of Aircraft Maintenance Hangar*, 2008. Based upon my review of the facts and analyses contained in the attached EA, which is hereby incorporated by reference, I conclude that the Proposed Action will not have a significant environmental impact. An Environmental Impact Statement is not required for this action. This document, and the supporting EA, fulfills the requirements of National Environmental Policy Act, the Council on Environmental Quality regulations, and Title 32, Code of Federal Regulations, Part 989, Environmental Impact Analysis Process.

Approved:

Robert H. Farrell

ROBERT FARRELL
Deputy Base Civil Engineer
78th Civil Engineer Group

MAY 29, 2008
Date

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Final

Environmental Assessment Construction and Operation of Aircraft Maintenance Hangar Project Number UHHZ023005

for

78th Civil Engineer Group, Environmental Management Division
Warner Robins Air Logistics Center
Robins Air Force Base, Georgia
Contract No. FA4890-04-D-0005, Delivery Order No. Q601

May 12, 2008

Prepared by

URS Group, Inc.
1000 Abernathy Road NE, Suite 900
Atlanta, Georgia 30328-5648

Kenneth Branton
Delivery Order Manager

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EXECUTIVE SUMMARY

Warner Robins – Air Logistics Center (WR-ALC) proposes to construct an Aircraft Maintenance Hangar (Project Number UHHZ023005, Building # 20035) sufficient for servicing multiple types of small and medium cargo aircraft, primarily the C-130 and C-17 cargo aircraft, at Robins Air Force Base (AFB). The proposed Aircraft Maintenance Hangar will provide a controlled environment facility that consolidates efforts for the maintenance and modernization/upgrade of C-130 and C-17 aircraft. The project, as addressed in this Environmental Assessment (EA), is the first of two phases. Although the second phase of the project is not addressed in this EA, the current siting of the proposed Aircraft Maintenance Hangar (first phase) allows for future building expansion (second phase) to address a probable increase in C-130/C-17 workflow at Robins AFB for supporting the war fighter.

WR-ALC needs additional inside maintenance dock positions for efficient maintenance of cargo aircraft. An adequate number of inside dock spaces does not currently exist; therefore, several aircraft undergo maintenance outside on the aircraft ramps or under open air "Tents," which are permanent warehouse-like structures without walls. For these aircraft, weather delays (rain, wind over 20 knots, and lightning within 5 miles) increase the number of aircraft flow days by an average of 12.1 days. Flow days are defined as the elapsed time (in work days) that an aircraft is present at a maintenance depot before the completion of work. Intense scheduling efforts must be employed to jockey aircraft around the ramps and through the Tents and maintenance docks to meet production schedules. Aircraft maintenance productivity conducted on ramps or under tents is approximately 10 percent lower than work conducted inside an aircraft hangar. Inside work provides a safer, more optimal working environment for the mechanics, resulting in a higher quality of work.

78th Civil Engineer Group, Environmental Management Division (78th CEG/CEV) has conducted this EA to identify and assess potential effects of the Proposed Action: construction and operation of a new Aircraft Maintenance Hangar at Robins AFB.

The proposed site for the new Aircraft Maintenance Hangar contains approximately 15 acres of land located on the northern portion of Robins AFB at the southeastern corner of Perimeter Road and Eagle Street Extension, immediately west of Taxiway C. The proposed site currently consists of mowed grassy field; an asphalt-paved road currently used for overflow equipment storage; stockpiled fill/soil materials; and wooded land. The northwestern portion of the site is occupied by a storm water detention pond, an unpaved access road and a small storage trailer (Trailer F-2).

C-130 maintenance operations currently conducted outside by 402nd Aircraft Maintenance Group (AMXG) in the Tents located between Buildings 91 and 86 would be relocated to the new Aircraft Maintenance Hangar. The new Aircraft Maintenance Hangar would consist of a 97,000-square-foot, single-story, multi-bay aircraft hangar constructed with a concrete slab foundation/floor slab, structural steel frame and masonry walls, and a metal roofing system. The planned aircraft maintenance operations would include the removal, maintenance and reinstallation of: engines/propellers, control surfaces, outboard wings, vertical/horizontal stabilizers, ramp/aft doors, wing stands and center box wing structure. This maintenance work would be accomplished with an interior building crane if funding allows the larger crane size. Otherwise, the work would be performed with a mobile crane as is currently performed. All maintenance operations would be performed on previously defueled and unarmed aircraft. Support functions to be included within the Aircraft Maintenance Hangar include: administrative offices, equipment storage, technical operations (TO) libraries, an employee breakroom, employee restroom facilities and building utilities.

Approximately 200 total personnel would work in the Aircraft Maintenance Hangar, which would operate 24 hours a day (two shifts – day and swing), seven days a week. Approximately 120 personnel would be assigned to the day shift (30 personnel per aircraft with four aircraft), and 60 personnel would be assigned to the swing shift (15 personnel per aircraft, with four aircraft). An additional 20 to 30 office personnel would be located at the hangar. Approximately 170 of the total 200 personnel would be new civilian personnel hired for the increased workload anticipated at the hangar. Existing

parking areas located approximately one-quarter mile south of the site along Perimeter Road would be available for personal vehicle parking.

The No-Action or "status quo" alternative evaluated herein involves no project implementation - the Aircraft Maintenance Hangar would not be constructed and the WR-ALC would not benefit from increased efficiencies in aircraft maintenance activities, or be optimally prepared to address a potential increase in C-130/C-17 workflow. Without additional indoor dock spaces, aircraft maintenance would continue to be hampered by weather-related delays. Less than optimal aircraft maintenance and repair times would continue and result in excessive depot flow days, leading to increased costs and delays in returning the aircraft back to the owning command/war fighter.

Neither the Proposed Action nor the No-Action Alternative was determined to cause significant adverse short-term or long-term impacts to the environment. **Table 2-1** in **Section 2.5** compares the alternatives that received detailed evaluation in the EA. Constructing and operating the Aircraft Maintenance Hangar at the Proposed Action Site would provide positive socioeconomic impacts to the Warner Robins community and positive safety impacts for aircraft maintenance personnel. Increases in surface water runoff generated as a result of additional impervious surface area would be controlled and measures would be implemented to protect water quality.

Cumulative impacts to the environment resulting from additional projects that are proposed, ongoing, recently completed, or anticipated to be implemented in the near future also received evaluation in the EA. The most notable cumulative impact resulting from the construction of new facilities in the area of the Proposed Action would be cumulative increases in storm water runoff due to increased impermeable surface area; however, when considered in conjunction with the implementation of low impact development (LID) design techniques, these cumulative increases in storm water runoff would not cause significant negative effects to surface waters. In addition, Robins AFB's day-to-day operations, and plans to use Best Management Practices (BMPs) would control land disturbance and storm water runoff. Cumulative impacts from the remaining environmental resources and elements were also assessed and were determined to be

insignificant because these resources and elements would not be significantly affected under the Proposed Action, and the impacts when added to other past, present, and reasonably foreseeable future actions would not be significant (**Table 2-1**).

CONTENTS

TABLES

FIGURES

APPENDICES

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ABBREVIATIONS & ACRONYMS

78th CEG/CEV	78th Civil Engineer Group, Environmental Management Division
78th OSS	78th Operational Support Squadron
402nd AMXG	402nd Aircraft Maintenance Group
402nd MXW	402nd Maintenance Wing
ACM	asbestos-containing material
AFB	Air Force Base
AFOSH	Air Force Occupational Safety and Health
ANG	Air National Guard
BMP	Best Management Practice
BTU	British Thermal Units
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CRM	Cultural Resources Manager
DoD	Department of Defense
DRMO	Defense Reutilization and Marketing Office
EA	Environmental Assessment
EPD	Environmental Protection Division
FEMA	Federal Emergency Management Agency
FY	Fiscal Year
HPD	Historic Preservation Division
HWMP	Hazardous Waste Management Plan
HWRP	Hazardous Waste Reduction Plan
ICRMP	Integrated Cultural Resources Management Plan
ISWMP	Integrated Solid Waste Management Plan
IWTP	Industrial Wastewater Treatment Plant
LBP	lead-based paint
MGD	million gallons per day
msl	mean sea level
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl

ABBREVIATIONS & ACRONYMS (continued)

PDM	Programmed Depot Maintenance
POV	privately-owned vehicle
RCRA	Resource Conservation and Recovery Act
SOF	Special Operations Forces
TO	technical operations
USAF	United States Air Force
USDA	United States Department of Agriculture
WR-ALC	Warner Robins – Air Logistics Center

1.0 PURPOSE AND NEED FOR PROPOSED ACTION

78th Civil Engineer Group, Environmental Management Division (78th CEG/CEV) has conducted this Environmental Assessment (EA) pursuant to the National Environmental Policy Act (NEPA) to identify and assess potential effects of the Proposed Action and the No-Action Alternatives as described in **Section 2** and evaluated in **Sections 3 and 4**. The Proposed Action includes the construction and operation of a multi-bay cargo Aircraft Maintenance Hangar (Project Number UHHZ023005, Building # 20035) to enhance the existing Warner Robins – Air Logistics Center (WR-ALC) operations located at Robins Air Force Base (AFB). The purpose and need for the action are described in the following sections.

1.1 PURPOSE OF PROPOSED ACTION

402nd Maintenance Wing (MXW), through its 7,000 employees, provides maintenance, engineering support and software development to major weapon systems of the United States Air Force (USAF) including the F-15, C-5, C-130, C-17 and Special Operations Forces (SOF) aircraft. 402nd MXW command objectives are achieved through providing the capability and capacity to support peacetime maintenance requirements, wartime emergency demands, aircraft battle damage repair and a ready source of maintenance of critical items.

402nd Aircraft Maintenance Group (AMXG), which is part of 402nd MXW at WR-ALC, provides Programmed Depot Maintenance (PDM) and unscheduled repair activities on multiple aircraft, including C-17s and C-130s. PDM is defined as a scheduled major aircraft overhaul or heavy maintenance performed at either a government-owned facility or private-sector depot. 402nd AMXG is responsible for repair, modification, reclamation and rework of over 200 aircraft worldwide, including 50 C-130s.

The purpose of the Proposed Action is to provide additional interior maintenance space for 402nd AMXG operations. Constructing a new aircraft maintenance hangar would provide additional inside maintenance dock spaces and eliminate the need to work in less

than optimal conditions, as PDM work currently being conducted outside would be eliminated.

1.2 NEED FOR PROPOSED ACTION

Currently, an adequate number of inside maintenance dock spaces does not exist at WR-ALC. Therefore, depot maintenance on several aircraft occurs outdoors on aircraft ramps or under open air "Tents," which are permanent warehouse-like structures without walls. For these aircraft, weather delays (rain, wind over 20 knots, and lightning within 5 miles) stop or delay maintenance activities for safety reasons and increase aircraft maintenance flow days by an average of 12.1 days. Flow days are defined as the elapsed time (in work days) that an aircraft is present at a maintenance depot before the completion of work. Intense scheduling efforts must be employed to move aircraft around the ramps and through the Tents and interior maintenance docks to meet production schedules. Ineffectiveness and inefficiencies in the maintenance of cargo aircraft are experienced routinely.

The PDM activities currently conducted by 402nd AMXG occur outside under two Tents located between Building 91 and Building 86, on the northern portion of Robins AFB. This area between the two buildings (including the Tents) consists of concrete hardstand. The PDM of C-130s that occurs in this area is not within a controlled (or enclosed) environment. Additionally, the C-130 workload is expected to grow over the next few years, which will force more maintenance work to be completed on the ramps and under the Tents if the Proposed Action is not implemented. Aircraft maintenance productivity conducted on ramps and in the Tents is approximately 10 percent lower than work conducted in an aircraft hangar. Inside work provides a safer, more optimal environment for the mechanics, and thus, a higher quality of work.

2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

This chapter presents the considerations used for selecting alternatives, describes the Proposed Action and No-Action Alternative and summarizes the environmental consequences of implementing the Proposed Action and No-Action Alternative. Other potential alternatives that were preliminarily evaluated and subsequently eliminated from further consideration are also discussed briefly in this section.

2.1 REQUIREMENTS

WR-ALC identified several requirements for the evaluation of alternatives that were based on fulfilling the purpose of the action for a facility to be configured for aircraft maintenance operations. Alternatives that merit detailed evaluation must meet the following criteria that support the purpose and need for action.

- Compliance with United States Department of Defense (DoD) minimum force protection construction standards as outlined in *DoD Minimum Antiterrorism Standards for Buildings* (DoD, 2003):
    - a building greater than 150 feet from the controlled perimeter, and
    - a site large enough for a 33-foot standoff distance from the structure.
- Ability to provide a 97,000-square-foot aircraft maintenance hangar that can provide maintenance space for C-17s or C-130s and associated apron space without displacing existing ramp space, storage space and support equipment space.
- Ability for location to provide an operational maintenance hangar and associated apron space by December 2010 (Fiscal Year [FY] 2011).
- Ability for the location to provide space for a Phase II hangar addition that is currently planned as a FY 2012 project.
- Ability to provide a hangar that includes the following characteristics:
    - Hangar tall enough to fit C-17 aircraft;
    - HVAC, utilities, fire protection, lightning protection, and necessary support; and
    - Overhead bridge crane system.

2.2 PROPOSED ACTION DESCRIPTION

This EA addresses WR-ALC/402nd AMXG's proposed construction of a new aircraft hangar and the associated operations at Robins AFB. Robins AFB is located in Houston County in central Georgia, approximately 100 miles southeast of Atlanta, 18 miles south of Macon, and immediately east of the city of Warner Robins (**Figures 1 and 2**).

The site selected for the new Aircraft Maintenance Hangar, referred to herein as "Proposed Action Site" is an approximately 15-acre lot located near the southeastern corner of Perimeter Road and Eagle Street Extension, immediately west of Taxiway C, within the northern portion of Robins AFB. The site is bound on the north by Eagle Street Extension and the Air National Guard (ANG) property and on the south by the newly constructed Fire and Crash Rescue Facility and Taxilane C2 (**Figures 3 and 4**). The site is well beyond the controlled perimeter and has space for the 33-foot standoff distance.

Components of the Proposed Action include:

- Construction of a new Aircraft Maintenance Hangar sufficient for servicing multiple types of small and medium cargo aircraft, primarily the C-130 cargo aircraft, and potentially the C-17 cargo aircraft.
    - Construction of the new facility would begin in FY 2009 and be completed in FY 2011.
    - The Proposed Action Site currently consists of mowed grassy field; an asphalt-paved road currently used for overflow equipment storage belonging to the 402nd AMXG; stockpiled fill/soil materials generated by previous site development activities at various locations on Robins AFB; and wooded land. The northwestern portion of the site is occupied by a storm water detention pond, an unpaved access road and a small storage trailer (Trailer F-2) belonging to the 402nd AMXG **(Figure 3)**.
    - Construction of a 97,000-square-foot, single-story, multi-bay aircraft hangar with a concrete slab foundation/floor slab, structural steel frame and masonry walls, and a metal roofing system.
    - Existing utilities traversing the Proposed Action Site would be removed and relocated, as needed.
    - Sections of an underground JP8 jet fuel line and an associated aboveground monitoring control station (owned by New Star) on the

Proposed Action Site would be removed and relocated to an adjacent off-site location to accommodate the construction of the hangar building itself.

- Buried construction debris (if any) encountered during the site development activities would be disposed of appropriately during site preparation activities.
- Stockpiled soil/fill material, and the stored equipment and storage trailer (F-2) would be relocated to an off-site location.
- The asphalt paved road portion of the Proposed Action Site would likely be retained and used as a contractor's equipment laydown and staging area during construction.
- The existing storm water detention pond area would be reconfigured if the entire volume of storm water detention is required due to the resulting increase in impervious area associated with the development of the site. The pond is approximately 3 acres in size, and the current depth is approximately 18 feet. Common design principles would be used to determine the impacts related to storm water runoff, and redesign and reconfiguration of the pond would be reviewed and coordinated with the base, if needed.
- The approximately 4,000 square feet of trees (hardwoods and pines) located adjacent to the on-site asphalt-paved road would be removed by 78th CEG/CEV as a part of the site development activities.
- The majority of the eastern portion of the site would be paved with concrete or occupied by the new hangar building. The new hangar facility would occupy the east-central portion of the site, with the associated aprons connecting to Taxiway C **(Figure 5).**

- Existing 402nd AMXG PDM operations conducted outside at the two Tents located between Building 91 and Building 86 would be discontinued. The PDM operations would be relocated to the new Aircraft Maintenance Hangar. The Tents and associated space located between the two buildings would be vacant. There are no plans to remove or relocate the Tents, or for the reuse of the space at this time.
- 402nd AMXG operations in the new Aircraft Maintenance Hangar.
  - PDM operations would include the removal, maintenance and reinstallation of: engines/propellers, control surfaces, outboard wings, vertical/horizontal stabilizers, ramp/aft doors, wing stands and center box wing structure. All maintenance operations are performed on previously defueled and unarmed aircraft. Support functions to be included within the Aircraft Maintenance Hangar include: administrative offices, equipment storage, technical operations (TO) libraries, an employee breakroom, employee restroom facilities and building utilities.
  - Approximately 200 total personnel would be located at the Aircraft Maintenance Hangar, which would operate 24 hours a day (two shifts –

day and swing), seven days a week. Approximately 120 personnel would be assigned to the day shift (30 personnel per aircraft with four aircraft), and 60 personnel would be assigned to the swing shift (15 personnel per aircraft, with four aircraft). An additional 20 to 30 office personnel would be located at the hangar. Existing parking areas located approximately one-quarter mile south of the site along Perimeter Road would be available for personal vehicle parking (**Figures 3 and 4**).

- Approximately 170 of the 200 total personnel would be new civilian personnel hired for the increased workload anticipated at the hangar.

All of the Proposed Action requirements listed in **Section 2.1** will be incorporated into the new facility on the Proposed Action Site.

The Proposed Action does not include changes to existing 402nd AMXG operations at WR-ALC other than the relocation of the outside PDM of C-130s to the new Aircraft Maintenance Hangar. Materiel from existing 402nd AMXG operations located in the area between Buildings 91 and 86 would be transferred to the new Aircraft Maintenance Hangar, if needed. With the probable increase in overall aircraft maintenance activities at Robins AFB, it is anticipated that additional aircraft maintenance would occur in this area.

The project, as addressed in this EA, is the first of two phases. Although the second phase of the project is not addressed in this EA, the current siting of the proposed Aircraft Maintenance Hangar (first phase) allows for future building expansion (second phase) to address an expected increase in C-17 and C-130 workflow. When the second phase of the project is funded, the environmental evaluation of the action will be addressed under separate NEPA documentation, as appropriate.

2.3 NO-ACTION ALTERNATIVE

Under the No-Action Alternative, no construction would occur at Robins AFB related to 402nd AMXG operations at WR-ALC. All 402nd AMXG operations at WR-ALC would continue as they do at present. Aircraft maintenance would continue to occur outdoors or in Tents and be subject to weather-related delays and less than optimal aircraft

maintenance situations. Repair times would continue to result in excessive depot flow days, leading to increased costs and delays in returning the aircraft back to the owning command/war fighter.

2.4 ALTERNATIVES CONSIDERED AND ELIMINATED FROM FURTHER CONSIDERATION

The other alternatives evaluated included preliminary assessments of existing hangar buildings for 402nd AMXG operations and alternative sites for new Aircraft Maintenance Hangar construction and operation. No existing hangar buildings were identified at Robins AFB that would meet the project requirement to provide hangar space by FY 2011, so none were evaluated in this EA. Three site locations where a new Aircraft Maintenance Hangar could be constructed were identified and were initially considered as part of the alternatives evaluation.

Alternative Site 1 was identified as the area between Viper Drive (to the west) and Taxilane H1 (to the east). The general area is currently occupied by several buildings (41, 44, and M44-1) used for maintenance support and is located adjacent to the maintenance depot ramp. The use of this location for the new Aircraft Maintenance Hangar would result in the displacement of existing support equipment, and would not allow for the future Phase II hangar addition expansion due to the presence of adjacent buildings and equipment. Because of these characteristics, Alternative Site 1 did not meet the Proposed Action requirements, and was therefore eliminated from further evaluation.

Alternative Site 2 was identified as the maintenance depot ramp, immediately south of the existing wash rack (roughly between Buildings 44 and 55). Use of this location for the new Aircraft Maintenance Hangar would result in the displacement of existing ramp space, and would not allow for the future Phase II hangar addition expansion due to the presence of adjacent ramp space. Because of these characteristics, Alternative Site 2 did not meet the Proposed Action requirements, and was therefore eliminated from further evaluation.

Alternative Site 3 was identified as the general area currently occupied by several buildings (S-145, 256 and 257, and M44-1) used for storage space and is located south of Taxiway A. Use of this location for the new Aircraft Maintenance Hangar would result in the displacement of existing storage space, it would not provide a sufficient amount of space for the apron space required by the Proposed Action, and due to the site's proximity to the runway, it would have unacceptable height restrictions for the proposed new hangar (rendering it not tall enough to accommodate C-17 aircraft). Because of these characteristics, Alternative Site 3 did not meet the Proposed Action requirements, and was therefore eliminated from further evaluation.

Alternative Sites 1, 2, and 3 are not discussed further in this EA. The site identified herein as the Proposed Action Site was the only alternative site evaluated that met all the requirements for the project, and thus is further assessed in this EA.

2.5 COMPARISON OF POTENTIAL EFFECTS

Table 2-1 presents a summary comparison of alternatives receiving detailed evaluation in this EA, which are the Proposed Action (construction of a new Aircraft Maintenance Hangar and 402nd AMXG operations at the Proposed Action Site) and the No-Action Alternative. Implementation of the Proposed Action or the No-Action Alternative, as detailed in **Section 4** of this document, would result in no significant adverse effect.

Table 2-1. Comparison of Alternatives Receiving Detailed Evaluation

Phase of Action (C = Construction; O = Operation)		**Proposed Action - Proposed Aircraft Maintenance Hangar**		**No-Action Alternative**
		C	**O**	**N/A**
Environmental Component		+ = Beneficial Effect, --- = Insignificant Adverse Effect, O = No Effect		
Physical Environment	Topography	---	O	O
	Surface Waters	O	O	O
	Floodplains and Wetlands	O	O	O
	Storm Water	---	---	O
	Geology and Soils	---	O	O
	Groundwater	O	O	O
	Water Supply and Drinking Water	O	O	O
Air Quality		---	O	O
Waste Management and Toxic Materials	Wastewater	O	---	O
	Solid Waste	---	---	O
	Hazardous Materials and Waste	---	---	O
	Toxic Materials	O	O	O
Noise Environment		---	O	O
Biological Environment		---	O	O
Cultural Resources		O	O	O
Socioeconomic Environment		+	+	O
Safety		O	+	O
Transportation		---	---	O
Cumulative Impacts		---	---	---

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3.0 AFFECTED ENVIRONMENT

This section describes the existing environment within the area potentially affected by the Proposed Action and No-Action Alternative. A brief description of the action site is followed by descriptions of the physical environment, air quality, waste management and toxic materials, noise environment, biological environment, cultural resources, socioeconomic environment, and transportation and safety. Discussion of the described elements and resources provides the basis for analysis of potential effects to the environment from the Proposed Action and No-Action Alternative.

Relevant background on Robins AFB is presented in **Appendix A**. Site-specific information presented in this section is derived from on-site evaluation and information obtained from 78th CEG/CEV and other Robins AFB personnel.

The Proposed Action Site is an approximately 15-acre parcel located in the northern portion of Robins AFB (see **Figure 2**). It is situated north of the new Fire and Crash Rescue Facility and Taxilane C2, east of Perimeter Road, south of Eagle Street Extension and west of Taxiway C (see **Figures 3 and 4**).

The Proposed Action Site was previously disturbed with an asphalt-paved road traversing the site, which is currently used as a cut-up and overflow area for storage; an asphalt-paved pad used for storage is also located on the site (indicated as an open circle) and is shown on the relevant 1973 United States Geological Survey 7.5-minute topographic quadrangle map (see **Figure 2**); and an approximately 3-acre storm water detention pond is located in the northwestern portion of the site. An unpaved access road and a small storage trailer (Trailer F-2) are also located in the northwestern portion of the site, to the south of the detention pond. Part of the site has been used for the storage of excavated soil, as a large pile of stockpiled soil has been placed in the northeastern portion of the site. The remaining areas of the site are covered with grass and trees (**Figure 4**). The southwestern portion of the site consists primarily of wooded land. A brick and masonry grill and concrete pad are also located in this wooded area.

Underground potable water lines and jet fuel (JP8) lines traverse the Proposed Action Site in the area of the site planned for the construction of the new hangar building. Potable water distribution pipes are located under the central portion of the site paralleling the asphalt-paved road. Potable water is not currently used on site. The JP8 fuel lines are located under the central portion of the site in a roughly north-south and east-west orientation. An associated monitoring control station is located aboveground on the Proposed Action Site at the juncture of the underground JP8 lines. The JP8 fuel lines and monitoring control station are owned and managed by New Star. The sanitary wastewater collection system, industrial wastewater line, natural gas line and electrical lines are located at the periphery of the site, primarily at the eastern border, near Taxiway C.

The site has not been previously developed with structures. However, debris generated during initial construction of the airfield has been buried or disposed in the general area of the Proposed Action Site, and buried construction debris required excavation and removal during construction of the adjacent Fire and Crash Rescue Facility. These materials would have consisted of construction debris (concrete, metal and wood) and other inert materials. The area of the Proposed Action Site is no longer used for disposal purposes. No environmental concerns are known to exist in association with these materials.

The current 402nd AMXG PDM Site is located between Building 91 and Building 86, about 1,000 feet southeast of the Proposed Action Site. Aircraft undergo maintenance outside the buildings or under the open air Tents, which are permanent warehouse-like structures without walls. The area between the two buildings (including the Tents) consists of concrete hardstand. This area is bounded to the north by Buildings 91M1 and 91M2, beyond which are Taxilane C2 and the new Fire and Crash Rescue facility; to the east by Building 91, beyond which are aprons leading to Taxilane C1; to the south by aprons leading to Taxilane H1; and to the west by Building 86, beyond which are additional maintenance buildings and privately-owned vehicle (POV) parking lots. PDM of C-130s that occurs in this area is not within a controlled (or enclosed) environment.

This PDM would be relocated to the new Aircraft Maintenance Hangar. The Tents and associated space located between the two buildings would be vacant. There are no plans to remove or relocate the Tents, or for the reuse of the space at this time.

Underground utilities including: potable water lines, the sanitary wastewater collection system, industrial wastewater lines, natural gas lines and electrical lines are located at the periphery of the existing 402nd AMXG PDM Site and would not be affected by the Proposed Action.

3.1 PHYSICAL ENVIRONMENT

The following description of the physical environment of the study areas is based on its principal components: topography, surface waters, floodplains, storm water, wetlands, geology and soils, groundwater and water supply and drinking water.

3.1.1 Topography

Proposed Action Site - Topography at the Proposed Action Site is relatively flat, with an average elevation of approximately 300 feet above mean sea level (msl). The highest point on the Proposed Action Site, approximately 310 feet above msl, is at the northeastern quadrant of the site in the area of stockpiled soil. The lowest point on the Proposed Action Site is at the northwestern quadrant of the site in the area of the storm water detention pond. This area, at the base of the detention pond, is approximately 285 feet above msl.

Existing 402nd AMXG PDM Site - Topography at the PDM Site is relatively flat, with an average elevation of approximately 300 feet above msl.

3.1.2 Surface Waters

Proposed Action Site - No natural surface water bodies are located on or adjacent to the Proposed Action Site, and no current operations at or characteristics of the Proposed Action Site directly adversely impact surface waters.

A storm water detention pond is located on the northwestern quadrant of the site. The pond it is not currently operated to detain/retain storm water runoff. Runoff directed to the pond immediately discharges from the site. The pond receives surface water runoff from the site and the nearby properties to the north. Concrete culverts located at the southern end of the detention pond direct the water to an adjacent, on-site gravel-lined drainage channel. The drainage channel leads from the detention pond to the southwestern corner of the site (towards Perimeter Road). The nearest natural surface water is an unnamed, intermittent tributary located off site near the southwestern corner of the site.

Existing 402nd AMXG PDM Site - No natural surface water bodies are located on or adjacent to the PDM Site, and no current operations at or characteristics of the site directly adversely impact surface waters. The nearest natural surface water consists of two unnamed, intermittent tributaries located off site to the north and south of the site.

3.1.3 Floodplains and Wetlands

Based on review of flood insurance rate maps of the Federal Emergency Management Agency (FEMA, 1996), the most recent floodplain map (Robins AFB, 2006), and site observations, the Proposed Action Site and PDM Site are not located within the 100-year floodplain, nor do the sites contain jurisdictional wetlands. Nor do any activities or operations at the sites directly impact floodplains and wetlands.

3.1.4 Storm Water

Proposed Action Site - An approximately 3-acre storm water detention pond is located in the northwestern quadrant of the Proposed Action Site. However, the detention pond is not currently configured to detain/retain storm water runoff. Runoff directed to this area immediately discharges from the site. The detention pond receives surface water runoff from the site and the adjacent property to the north; no indications of adverse environmental impact associated with this pond were observed during site reconnaissance visits conducted in December 2006 and May 2007 in support of this EA. Precipitation falling onto the site generally infiltrates the unpaved and vegetated areas, or is directed as sheet flow into the storm water detention pond and drainage ditches at the site. A gravel-lined drainage channel leads from the detention pond to the southwestern corner of the site (towards Perimeter Road). The detention pond and drainage channels are part of the base's storm water collection system. Storm water runoff from the site ultimately discharges to the Ocmulgee River, located approximately 2 miles to the northeast, across the airfield.

Existing 402nd AMXG PDM Site - The PDM Site does not currently receive storm water runoff from off-site sources. The aircraft and associated equipment stored on site and the hardstand lots are maintained to avoid degradation and/or inadvertent leakage of contaminants to the environment. Precipitation falling onto the site sheet flows into storm drains located adjacent to the hardstand areas. The drains are part of the base's storm water collection system; storm water from the site ultimately discharges to the Ocmulgee River, located approximately 2 miles to the northeast, across the airfield.

3.1.5 Geology and Soils

Proposed Action Site - Many of the soils in the vicinity of the Proposed Action Site have been disturbed due to construction, including the existing on-site detention pond, paved road and associated storage lot. The area of stockpiled fill/soil materials located on the northeastern quadrant of the site was generated by previous site development activities at

various locations on Robins AFB. No environmental concerns are known to exist in association with the stockpiled soils.

Undisturbed soils on the Proposed Action Site are classified in the county soil survey as "Lucy sand, 0 to 5 percent slopes," which is described as deep, well-drained and somewhat excessively drained soil on uplands (United States Department of Agriculture [USDA], 1967). The areas of the site that are not covered by the stockpiled soils and pavement consist of grassy field and wooded land with little exposed soil. Current site activities and operations do not significantly adversely impact on-site or off-site soils.

Existing 402nd AMXG PDM Site - Many of the soils in the vicinity of the PDM Site have been disturbed due to construction, including the existing hardstand and Tents. Prior to the development of the PDM Site, the soils in the Site area were classified in the county soil survey as "Lucy sand, 0 to 5 percent slopes," which is described as deep, well-drained and somewhat excessively drained soil on uplands (USDA, 1967). Current site activities and operations do not significantly adversely impact on-site or off-site soils.

3.1.6 Groundwater

Depth to groundwater in the vicinity of the Proposed Action Site and PDM Site is estimated to fluctuate at an average depth of approximately 30 feet below ground surface. Current and past operations at the Sites are not known to have adversely impacted groundwater conditions.

3.1.7 Water Supply and Drinking Water

Proposed Action Site - No groundwater drinking wells are located within the boundaries of the Proposed Action Site. Potable water distribution pipes are located under the central portion of this site paralleling the asphalt-paved road. Potable water is not currently used on site.

Existing 402nd AMXG PDM Site - No groundwater drinking wells are located within the boundaries of the PDM Site. Potable water distribution pipes are located at the periphery of the PDM Site. Potable water is not currently used as a part of the PDM activities conducted on site. Potable water is available at the nearby buildings and is utilized by 402nd AMXG personnel.

3.2 AIR QUALITY

3.2.1 Regional Air Quality

Robins AFB is located in an attainment area, indicating that the National Ambient Air Quality Standards (NAAQS) are being met in Houston County. Background information regarding air quality at Robins AFB is presented in **Section 4.0** of **Appendix A**.

3.2.2 Air Emission Sources

Robins AFB is compliant with its Title V permit issued on November 14, 2003 (Air Quality Permit #9711-153-0033-V-01-2). Additional information related to the Title V program is presented in **Section 4.3.5** of **Appendix A**, and additional information related to air emission sources at Robins AFB is presented in **Section 4.2** of **Appendix A**.

Proposed Action Site - Air emissions are not currently produced at the Proposed Action Site.

Existing 402nd AMXG PDM Site - Insignificant mobile source air emissions are currently generated by the aircraft tugs at the PDM Site, as well as by the POVs using the nearby off-site parking lots. Engine run-ups and other engine testing procedures are not performed at the PDM Site. Air emissions are generated from aircraft maintenance activities performed by the 402nd AMXG. These maintenance activities would include minor painting activities (touch up painting with aerosol cans), handwipe cleaning operations and other routine minor maintenance activities.

3.3 WASTE MANAGEMENT AND TOXIC MATERIALS

3.3.1 Wastewater

Background information regarding the sanitary and industrial wastewater collection and treatment systems at Robins AFB is presented in **Sections 11.2** and **11.3**, respectively, of **Appendix A**.

Proposed Action Site - Sanitary sewer lines parallel the Proposed Action Site along the eastern border of the site. Industrial wastewater collection lines are located further to the east along Taxiway H, approximately 500 feet east of the site. Connections to the sanitary sewer and industrial wastewater collection lines are not currently provided to the Proposed Action Site. Sanitary sewage and industrial wastewater are not currently generated at the Proposed Action Site.

Existing 402nd AMXG PDM Site - Sanitary sewer lines are located along the periphery of the PDM Site. Industrial wastewater collection lines are located further to the east along Taxiway H, approximately 500 feet east of the site. Connections to the sanitary sewer and industrial wastewater collection lines are provided to the buildings surrounding the PDM Site. Sanitary sewage and industrial wastewater are not currently generated from the PDM activities conducted at the Site. 402nd AMXG personnel utilize the restroom facilities located in the adjacent Buildings 91 and 86.

3.3.2 Solid Waste

Solid wastes are generated from all areas of Robins AFB, including base housing, municipal operations, office complexes, industrial facilities, and construction/demolition areas. An *Integrated Solid Waste Management Plan* (ISWMP) has been developed to establish an integrated approach to dealing with solid waste management issues at Robins AFB. The approach includes source reduction, recycling, and disposal. Solid wastes that cannot be recycled are collected and transported to the Houston County landfill for disposal. Houston County has committed to providing solid waste disposal services to

Robins AFB and has a permitted facility with 40 years of useful life. Approximately 50 years of additional capacity could be acquired through expansion of the landfill if needed. Solid wastes destined for recycling are collected at various locations on base in waste-specific containers or are turned in to the Defense Reutilization and Marketing Office (DRMO). Background information regarding solid waste related to Robins AFB is presented in **Section 12.1** of **Appendix A**.

Proposed Action Site - Solid waste is not currently generated at the Proposed Action Site. However, debris generated during the initial construction of the nearby airfield has been buried or disposed in the general area of the Proposed Action Site. These materials would have consisted of construction debris (concrete, metal and wood) and other inert materials. The area of the Proposed Action Site is no longer used for disposal purposes. No environmental concerns are known to exist in association with these materials.

Existing 402nd AMXG PDM Site – Very limited quantities of solid waste are generated at the PDM Site. Solid waste consisting of paper, plastics, wood, metal, etc. is generated in association with the maintenance activities occurring at this site.

3.3.3 Hazardous Materials and Waste

Robins AFB has implemented a *Hazardous Waste Reduction Plan* (HWRP) (WR–ALC, 2006) that focuses on reducing or eliminating the use of hazardous materials. Hazardous materials are stored and handled in accordance with Occupational Safety and Health Administration (OSHA) regulations 29 Code of Federal Regulations (CFR) 1910.1200(e) through (h), *Hazard Communication.* Hazardous waste is managed under the Resource Conservation Recovery Act (RCRA) S*tandards Applicable to Generators of Hazardous Waste* (40 CFR Part 262); Georgia Rule 391-3-11, *Hazardous Waste Management;* and Robins AFB's Hazardous Waste Facility Permit. Universal waste is stored and handled in accordance with the *Standards for Universal Waste Management* (40 CFR Part 273) and Robins AFB's *Hazardous Waste Management Plan* (HWMP). All hazardous waste is handled and disposed of in accordance with Robins AFB's HWMP, the facility's Hazardous Waste Facility Permit, and all local, state, and Federal regulations.

Background information relative to hazardous materials and hazardous waste as it relates to Robins AFB is presented in **Section 12.2** of **Appendix A**.

Proposed Action Site - No hazardous materials are stored and no hazardous waste is currently generated at the Proposed Action Site.

Existing 402nd AMXG PDM Site – Hazardous materials are maintained in the maintenance areas of the adjacent facility buildings. Minor quantities of material are maintained in flammables cabinets beneath the Tents. The hazardous materials include oils, hydraulic fluids, lubes, solvents, and aerosol paints. All hazardous materials are used and handled in accordance with Robins AFB's HWMP and all applicable regulations, and significant adverse impacts do not occur due to their usage. These maintenance activities include minor painting activities (touch up painting with aerosol cans), handwipe cleaning operations and other routine minor maintenance activities.

Hazardous waste generated from 402nd AMXG operations includes rags and petroleum products, such as hydraulic fluid mixed with used oil and hydraulic fluid mixed with solvent.

3.3.4 Toxic Materials

Proposed Action Site - Permanent building structures, which could contain asbestos-containing materials (ACM) and lead-based paint (LBP), are not located on the Proposed Action Site. In addition, no polychlorinated biphenyl (PCB)-containing equipment is located within the boundaries of the site.

Existing 402nd AMXG PDM Site – Permanent building structures, which could contain ACM and LBP, are not located on the PDM Site. In addition, no PCB-containing equipment is located within the boundaries of the site.

3.4 NOISE ENVIRONMENT

Proposed Action Site - No significant noise is currently being generated from the Proposed Action Site. Off-site noise is generated by aircraft on the adjacent airfield and vehicles on the adjacent roadways. Based on the most recent noise contour data, the Proposed Action Site is located in the area subject to levels between 70 and 79 decibel day/night levels (Middle Georgia Regional Development Center, 2004). These decibel levels are equivalent to those produced by a loud conversation, vacuum cleaner, hair dryer or traffic along a busy street. These levels are below the Air Force Occupational Safety and Health (AFOSH)-established exposure limit of 85 decibels (by 8-hour time weighted average) that requires use of Personal Protective Equipment to protect hearing.

Existing 402nd AMXG PDM Site – No significant noise is currently being generated from the PDM Site. Off-site noise is generated by aircraft on the adjacent airfield and vehicles on the adjacent roadways. Engine run-ups and other engine testing procedures are not performed at the PDM Site. Based on the most recent noise contour data, the Proposed Action Site is located in the area subject to levels between 75 and 79 decibel day/night levels (Middle Georgia Regional Development Center, 2004). These decibel levels are equivalent to those produced by a vacuum cleaner, hair dryer or traffic along a busy street. 402nd AMXG personnel wear ear protection, as needed when performing required PDM activities.

3.5 BIOLOGICAL ENVIRONMENT

3.5.1 Flora

Proposed Action Site - The Proposed Action Site is located within developed portions of base, and consists mainly of developed, impervious surfaces; mowed, grass-covered areas; and wooded land. The southwestern quadrant of the Proposed Action Site consists of approximately 5 acres of wooded land. A small strip of trees, approximately 4,000 square feet in size, is located in this area immediately adjacent to the asphalt-paved road.

This general area contains a mixture of pines and hardwoods. The remainder of the on-site flora consists primarily of landscaped grasses.

Existing 402nd AMXG PDM Site – The PDM Site and surrounding areas have been disturbed by previous grading and construction activities, and contain mostly developed or impervious surfaces. Flora located at the site includes landscaped grasses.

3.5.2 Fauna

Proposed Action Site - The Proposed Action Site is located within developed portions of base, and consists mainly of developed, impervious surfaces; mowed, grass-covered areas; wooded land; and an approximately 3-acre storm water detention pond. The pond is currently dry and contains no aquatic fauna. The southwestern quadrant of the Proposed Action Site consists of approximately 5 acres of wooded land consisting of mixed pine and hardwood trees. The current habitat supports small mammals and birds. The Eastern Gray Squirrel (*Sciurus carolinensis*), Northern Mockingbird (*Mimus polyglottos*), Barn Swallow (*Hirundo rustica*) and Loggerhead Shrike (*Lanius ludovicianus*) were observed at the site at the time of the May 2007 site visit.

Existing 402nd AMXG PDM Site – The PDM Site and surrounding areas have been disturbed by previous grading and construction activities, and contain mostly developed or impervious surfaces. The PDM Site offers minimal habitat for fauna. No fauna was observed at the site during the site visits performed in support of this EA.

3.5.3 Endangered, Threatened and Sensitive Species

No threatened, endangered or sensitive plant or animal species or their habitats are located on or adjacent to the Proposed Action Site or PDM Site.

3.6 CULTURAL RESOURCES

Proposed Action Site - No permanent building structures are located on the Proposed Action Site. No National Register of Historic Places (NRHP)-listed or -eligible structures are located within the viewshed of the Proposed Action Site. No archaeological sites have been recorded in the vicinity of the Proposed Action Site.

Existing 402nd AMXG PDM Site – No permanent building structures are located on the PDM Site. The site is developed with the Tents and hardstand. No National Register of Historic Places (NRHP)-listed or -eligible structures are located within the viewshed of the PDM Site. No archaeological sites have been recorded in the vicinity of the PDM Site.

3.7 SOCIOECONOMIC ENVIRONMENT

Socioeconomic resources include the basic attributes and resources associated with the human environment. In particular, this includes population and economic activity. Economic activity typically encompasses employment, personal income and industrial growth.

Proposed Action Site - No regular operations occur at the Proposed Action Site; therefore, no employees or expenditures are currently associated with the Proposed Action Site. The site is currently used for overflow storage of moveable equipment and the stockpiling of fill/soil materials generated by site development activities at various locations on Robins AFB. The moveable equipment that is stored at the site is primarily old, is not currently in use or is used rarely, and the storage density of the equipment is low. This equipment could be moved to another area (or in some cases disposed) without impact to the maintenance operations.

Existing 402nd AMXG PDM Site – PDM activities are currently performed at the site by members of 402nd AMXG. The PDM of eighteen (18) C-130 cargo aircraft is currently performed by 402nd AMXG.

3.8 TRANSPORTATION AND SAFETY

At Robins AFB, safety issues are those that directly affect the protection of human life and property, and principally involve aviation, munitions and fire prevention. In addition, Air Force personnel are protected by observing OSHA, Air Force Occupational Safety and Health (AFOSH) standards, Robins AFB safety requirements and RCRA (see **Section 3.3.3**).

Proposed Action Site - No regular operations occur at the Proposed Action Site. The area of the Proposed Action Site is located on the northern portion of Robins AFB. The site is accessed from one point along Perimeter Road (to the west) by an unpaved road; from Eagle Street Extension (to the north) by an unpaved road; and from Taxilane C2 (to the south) by the on-site asphalt-paved road. The Proposed Action site is located in an area of little traffic congestion, and has direct access to Perimeter Road and the flightline. Currently no transportation or safety issues are associated with the Site or the surrounding roads.

Existing 402nd AMXG PDM Site – The PDM of C-130s occurs at the Site. The area of the PDM Site is located on the northern portion of Robins AFB. The site is accessed from the personnel parking lot (to the west); from Taxilane C1 (to the east); and by Taxilane H1 (to the south). The PDM Site is located in an area of little traffic congestion, and has access to Perimeter Road and the flightline. Currently no transportation or safety issues are associated with the Site or the surrounding roads.

An adequate number of inside dock spaces for C-130 maintenance does not currently exist; therefore, several aircraft undergo maintenance outside on the aircraft ramps or under Tents. Adverse weather conditions (rain, wind over 20 knots, and lightning within 5 miles) stop or delay maintenance activities for safety reasons and increase aircraft maintenance flow days by an average of 12.1 days. Inside work provides a safer, more optimal working environment for the mechanics, and thus, a higher quality of work.

4.0 ENVIRONMENTAL EFFECTS

This chapter describes the potential environmental effects of implementing the Proposed Action and the No-Action Alternative. Potential effects of actions are based on the description of the actions as presented in **Section 2** and existing environmental conditions of each site as presented in **Section 3**. Environmental effects from the No-Action Alternative address effects as they currently occur or could occur in the future.

4.1 PHYSICAL ENVIRONMENT

4.1.1 Topography

4.1.1.1 No-Action Alternative

Under the No-Action Alternative, the topography of Robins AFB would remain unchanged because no construction would occur. In addition, the topography at Robins AFB is not currently being significantly impacted by the activities at the subject sites. Implementation of the No-Action Alternative would result in neither significant positive nor significant negative effects to the topography at or near Robins AFB.

4.1.1.2 Proposed Action

Construction of Aircraft Maintenance Hangar: The construction phase of the Proposed Action would require minimal grading of portions of the site due to the current topography based on preliminary information regarding the design of the facility. The stockpiled soil/fill material on the northern portion of the site would be relocated to various construction sites and used, as needed, for future site development activities. The existing storm water detention pond area would be reconfigured if the entire volume of storm water detention is required due to the resulting increase in impervious area associated with the development of the site. The pond is approximately 3 acres in size, and the current depth is approximately 18 feet. Common design principles would be used to determine the impacts related to storm water runoff, and redesign and reconfiguration

of the pond would be reviewed and coordinated with the base, if needed. Altering of topography of this area would result in an insignificant adverse impact to topography due to the overall small size of this area when compared to the surrounding area. See **Section 4.1.4.2** for potential impacts to surface waters from soil erosion and storm water runoff.

402nd AMXG Operations: No change to, or positive or adverse impacts to topography would result from the operational aspects of the Proposed Action because no functions affecting the site topography would occur as a part of the 402nd AMXG operations.

4.1.2 Surface Waters

4.1.2.1 No-Action Alternative

Implementation of the No-Action Alternative would result in neither significant positive nor significant negative effects to surface waters near Robins AFB because no construction would occur and no changes to 402nd AMXG operations would be enacted. Surface waters would remain unchanged and surface waters are not currently being significantly impacted by the subject sites or activities at the sites.

4.1.2.2 Proposed Action

Construction of Aircraft Maintenance Hangar: Construction of the Aircraft Maintenance Hangar would not cause significant adverse impacts to surface waters. This is because the base uses Best Management Practices (BMPs) during the course of day-to-day operations, and plans to use BMPs such as silt fencing, hay bales and erosion blankets during the construction of the Aircraft Maintenance Hangar to limit erosion disturbance and control storm water runoff so as not to cause significant adverse impacts to surface waters.

The existing storm water detention pond area would be reconfigured if required for development of the site. Increased impervious surface in the area would generate a greater amount of storm water runoff that would be controlled by the existing storm water

detention pond. The pond would be modified, if needed, to sufficiently delay runoff of surface water from high-intensity storms and thus result in no significant adverse impacts to downgradient surface waters. If the existing pond is modified, BMPs such as those listed above would be used to limit erosion disturbance and control storm water runoff so as not to cause significant adverse impacts to surface waters. See **Section 4.1.4.2** for potential impacts to surface waters from soil erosion and storm water runoff during construction activities and additional BMP information.

402nd AMXG Operations: Proposed 402nd AMXG operations at the new Aircraft Maintenance Hangar would not cause significant adverse impacts to surface waters. This is because the base uses BMPs during the course of day-to-day operations, and plans to use BMPs such as absorbent materials, dikes, berms, and other equipment to control accidental spills and releases. See **Section 4.1.4.2** for potential impacts to surface waters from storm water runoff and additional BMP information.

4.1.3 Floodplains and Wetlands

4.1.3.1 No-Action Alternative

Under the No-Action Alternative, floodplain characteristics would remain unchanged and wetlands would not be impacted because no construction would occur and no changes to 402nd AMXG operations would be enacted. In addition, these resources are not currently being significantly impacted by the subject sites or activities at the sites. Implementation of the No-Action Alternative would cause neither significant positive nor significant negative effects to floodplain characteristics and wetlands near Robins AFB.

4.1.3.2 Proposed Action

Construction of Aircraft Maintenance Hangar: The construction phase of the Proposed Action would result in neither significant positive nor significant negative effects to floodplains or wetlands. No changes to the 100-year floodplain or to existing

wetland areas near or receiving storm water runoff from the site would occur under the Proposed Action.

402nd AMXG Operations: Future operations associated with implementation of the Proposed Action would result in neither significant positive nor significant negative effects to floodplains or wetlands. No changes to the 100-year floodplain or to existing wetland areas or receiving storm water runoff from the area would occur as a result of operations. This is because the base uses BMPs such as absorbent materials, absorbent mats, and berms to control accidental spills and releases so as not to cause significant adverse impacts.

4.1.4 Storm Water

4.1.4.1 No-Action Alternative

Implementation of the No-Action Alternative would cause neither significant positive nor significant negative effects to storm water near Robins AFB because no changes to storm water or the storm water conveyance system would occur, and storm water is not currently being significantly impacted by the subject sites or activities on the sites.

4.1.4.2 Proposed Action

Construction of Aircraft Maintenance Hangar: The construction phase of the Proposed Action would not significantly impact storm water. Appropriate precautions would be taken during removal of the existing asphalt pavement and stockpiled soil/fill materials; during New Star's removal and off-site relocation of the JP8 fuel lines and associated aboveground monitoring control station; and during construction of the new Aircraft Maintenance Hangar. The existing storm water detention pond area would be reconfigured if required for development of the site. Use of BMPs such as silt fencing, hay bales and erosion blankets during the construction of the Aircraft Maintenance Hangar would control storm water runoff providing protection to these resources so as not to cause significant adverse impacts.

The existing storm water detention pond and associated drainage channel would be used until construction activities commence; use of the pond would be interrupted for an insignificant time period.

The proposed construction of the Aircraft Maintenance Hangar and associated aprons/taxiways (first phase) would impact approximately 9 to 10 acres of the approximately 15 acres at the Proposed Action Site. The new facility and associated paved maneuvering and staging areas would cover the eastern portion of the site. Impervious area at the Proposed Action Site would increase, as approximately 60 percent of the site's surface area would be covered by buildings and pavement, thus increasing the rate and volume of storm water runoff. The construction project would be designed and the existing area would be modified to include low impact development (LID) features to sufficiently delay runoff of surface water from high-intensity storms and control erosion and subsequent sedimentation. The design would ensure that the storm water collection system piping possesses adequate flow capacity to prevent flooding and not overwhelm the storm water conveyance system so as not to cause significant adverse impacts.

In addition to meeting applicable building codes for the construction of the new Aircraft Maintenance Hangar facility, the building contractor will be required to satisfy all relevant environmental requirements, submittals and permits related to the proposed project. The permit process includes submission of Notice of Intent for permit coverage under National Pollutant Discharge Elimination System (NPDES) General Permit 100001 to discharge storm water associated with construction activity; development and approval of an Erosion, Sediment and Pollution Control Plan that meets the requirements of the Permit, while written in accordance with Georgia Soil and Water Conservation Commission's *Manual for Sediment and Erosion Control in Georgia, 5th Edition*; following of the applicable county water protection ordinance; obtaining a Houston County Sediment and Erosion Control Permit; submittal of land disturbance fees to Georgia Environmental Protection Division (EPD) and Houston County; obtaining of a dig permit from 78th CEG to identify underground utilities, review of the base's day-to-

day BMP operations and plans; and submission of a Notice of Termination to Georgia EPD following completion of work when site conditions meet the definition of "final stabilization." Permit requirements also include performing periodic site inspections, sampling storm water discharges from the construction site, and analyzing turbidity of storm water runoff, performed in accordance with 40 CFR 136.

All permit applications would be submitted to 78th CEG/CEV for review prior to final submittal to governing authorities.

402nd AMXG Operations: The base uses BMPs during the course of day-to-day operations, such as dike or berm equipment, and absorbent materials to contain and clean-up spills, to reduce the potential for releases of contaminants from outdoor storage areas and aircraft maintenance areas that could adversely impact storm water. The base uses BMPs such as absorbent mats, sand bags and buffer zones to control potential releases of equipment liquids and prevent hazardous materials from entering storm water runoff. Hence, the Proposed Action would not cause a significant adverse impact related to 402nd AMXG operations.

4.1.5 Geology and Soils

4.1.5.1 No-Action Alternative

No changes to geology or soils at the subject sites or Robins AFB would occur under the No-Action Alternative because no construction would occur and no changes to 402nd AMXG operations would be enacted. In addition, these resources are not currently being significantly impacted by the subject sites or activities at the sites. Conducting no action would produce neither significant positive nor significant negative effects.

4.1.5.2 Proposed Action

Construction of Aircraft Maintenance Hangar: Geology would not be affected as a result of construction activities, as construction activities would not be deep enough to

affect geologic resources. As discussed previously in **Section 4.1.4.2,** as a result of construction activities associated with the Proposed Action, the potential for soil erosion and the potential for eroded soil to adversely affect the quality of storm water runoff would increase. However, due to the base's use of BMPs during the course of day-to-day operations, and plans to use BMPs such as silt fencing, hay bales and erosion-control blankets during the construction of the Aircraft Maintenance Hangar, soil erosion and the quality of storm water runoff would be controlled so as not to cause significant adverse impacts.

The stockpiled fill/soil materials located on the northeastern quadrant would be removed to accommodate construction of the new Aircraft Maintenance Hangar. The JP8 fuel lines and associated monitoring control station would be moved in conjunction with New Star to accommodate construction of the new Aircraft Maintenance Hangar. No environmental concerns are known to exist in association with the stockpiled fill/soil materials or the underground JP8 fuel lines. Associated with the removal of these features, 78th CEG/CEV would conduct sampling at the Proposed Action Site in the area of the stockpiled soil and underground JP8 fuel lines if potentially contaminated soils are identified. Waste characterization sampling would be performed, as needed, and the excavated soil and waste materials would be managed and disposed of in accordance with Robins AFB's HWMP. If contaminated soil is found, its removal and proper disposal would be a beneficial effect of the project. Any excavated soils determined to be hazardous waste would be managed and disposed of appropriately; if found to be non-hazardous, the soil would be stockpiled on base for potential future reuse, and any waste material would be properly disposed of as solid waste. Any hazardous waste generated would be disposed of through the Defense Reutilization and Marketing Office (DRMO).

402nd AMXG Operations: Future 402nd AMXG operations at Robins AFB would result in neither significant positive nor significant negative effects to the geology or soils at Robins AFB because no functions affecting the site geology and soil would occur as a part of the 402nd AMXG operations.

4.1.6 Groundwater

4.1.6.1 No-Action Alternative

Implementation of the No-Action Alternative would result in neither significant positive nor significant negative effects to groundwater because no changes to groundwater resources would occur and groundwater is not currently being significantly impacted by the subject sites or activities at the sites.

4.1.6.2 Proposed Action

Construction of Aircraft Maintenance Hangar: The construction phase of the Proposed Action would not impact groundwater at the site as the new construction would not be deep enough to impact or intersect groundwater. Conducting the Proposed Action would produce neither significant positive nor significant negative effects to groundwater.

The JP8 fuel lines and associated monitoring control station that cross the site would be moved in conjunction with New Star to accommodate construction of the new Aircraft Maintenance Hangar. No environmental concerns are known to exist in association with the underground JP8 fuel lines. However, if potential contamination to site groundwater is suspected, environmental sampling of site groundwater would be performed in accordance with Robins AFB's HWMP. If contaminated groundwater is found, the resulting environmental evaluation and associated remediation (if needed) would be a beneficial effect of the project. The JP8 fuel lines and associated monitoring and control station would be moved and reinstalled to the northern and western side of the project site close to Eagle Street Extension and Perimeter Road, respectively.

402nd AMXG Operations: Future 402nd AMXG operations associated with the Proposed Action would not impact groundwater at Robins AFB and would produce neither significant positive nor significant negative effects to groundwater.

4.1.7 Water Supply and Drinking Water

4.1.7.1 No-Action Alternative

No changes to existing water supply impacts and drinking water resources and usage would occur under the No-Action Alternative because no construction would occur and no changes to 402nd AMXG operations would be enacted. In addition, these resources are not currently being significantly impacted by the subject sites or activities at the sites. Implementation of the No-Action Alternative would result in neither significant positive nor significant negative effects to water supply and drinking water.

4.1.7.2 Proposed Action

Implementation of the Proposed Action would not affect the existing water supply at Robins AFB to a significant degree and overall drinking water consumption at Robins AFB would not increase as a result of the Proposed Action.

Construction of Aircraft Maintenance Hangar: Existing water pipes located beneath the Proposed Action Site construction area would be relocated as a result of construction of the new Aircraft Maintenance Hangar. Potential impacts to surface waters and soils as a result of the construction activities are discussed in Sections 4.1.2.2 and 4.1.5.2, respectively.

Existing pipes would be used until new pipes are installed; service would be interrupted for an insignificant time period and could occur over a weekend to further minimize disruption to customers.

Limited amounts of water would also be used for curing of concrete and other related construction activities. The amount required would be insignificant when compared to availability of potable water at Robins AFB.

402nd AMXG Operations: Water utilization at the new hangar would consist primarily of sanitary uses by facility personnel. Additional potable water would be used by the approximately 200 personnel at the Aircraft Maintenance Hangar, an approximate 1 percent increase of usage of the base's water supply. The current water use is approximately a quarter of the available capacity. Implementation of the Proposed Action would not affect the existing water supply at Robins AFB to a significant degree and the overall drinking water consumption at Robins AFB would not increase to a significant degree as a result of the Proposed Action.

4.2 AIR QUALITY

Potential air emissions resulting from the Proposed Action and No-Action Alternative have been evaluated based on the Clean Air Act as amended. The effects of an action are considered significant if they increase ambient air pollution concentrations above NAAQS, contribute to an existing violation of NAAQS, or interfere with or delay the attainment of NAAQS.

4.2.1 No-Action Alternative

No changes to air emissions would occur under the No-Action Alternative because no construction would occur and no changes to 402nd AMXG operations would be enacted. In addition, air quality is not currently being significantly impacted by the subject sites or activities at the sites. Implementation of the No-Action Alternative would result in neither significant positive nor significant negative effects to air emissions.

4.2.2 Proposed Action

Construction of Aircraft Maintenance Hangar: Pavement removal, utility line relocation and construction activities at the Proposed Action Site would generate fugitive dust. Construction of the Aircraft Maintenance Hangar would not cause significant adverse impacts due to fugitive dust. This is because the base uses BMPs during the course of day-to-day operations. The BMPs for dust would include procedures for

wetting disturbed portions of the project areas during periods of excessive dryness; therefore avoiding any significant adverse impacts

It is estimated that construction of the new Aircraft Maintenance Hangar would take 25 months. Implementation of the Proposed Action would increase emissions of carbon monoxide, hydrocarbons and nitrogen oxides from construction employee traffic and operation of heavy equipment. However, because the increase in commutation trips and emissions from construction worker vehicles would be temporary and emissions from heavy vehicles would also be relatively limited in quantity and duration, these emissions would be insignificant.

402nd AMXG Operations: Since there are currently no employees associated with the Proposed Action Site and approximately 170 new employees would be required for the Aircraft Maintenance Hangar, the amount of air emissions from employee vehicles and aircraft towing vehicles associated with the new Aircraft Maintenance Hangar would increase mobile emission sources. The mobile emission sources would not change air emissions at Robins AFB to a significant degree when compared to the current total emissions associated with Robins AFB and would not increase ambient air pollution concentrations above NAAQS.

Air emissions would be generated from aircraft maintenance activities performed by 402nd AMXG. These maintenance activities would include minor painting activities (touch-up painting with aerosol cans), handwipe cleaning operations and other routine minor maintenance activities. Engine run-ups and other engine-testing procedures would not be performed at the Aircraft Maintenance Hangar. There are no immediate plans to increase or alter aircraft maintenance operations conducted by the 402nd AMXG at the Proposed Action Site, and the type of emissions generated would be comparable to existing 402nd AMXG operations. Therefore, the amount of emissions generated would be insignificant and would not change air emissions at Robins AFB to a significant degree when compared to the current total emissions associated with Robins AFB. The new emissions would not increase ambient air pollution concentrations above NAAQS.

Current plans for the construction of the new Aircraft Maintenance Hangar facility include the use of natural gas-fired heating systems. The main hangar area would be heated with gas-fired radiant heaters. The gas-fired radiant heaters would be rated to run on natural gas and a propane/air mixture. A propane/air mixture is all that would be available during natural gas curtailment days. The administrative areas would be served by a gas-fired direct-expansion (DX) split system. Because these are standard HVAC-type units that emit insignificant levels of emissions (from natural gas/propane combustion) under Georgia Rules for Air Quality Control, no significant air emissions would be generated from the operation of the building heating systems. These HVAC systems are not required to have an air permit.

Robins AFB is considered a "major" source as defined by the Clean Air Act Regulations. 402nd AMXG will comply with all applicable standards at Robins AFB including the Aerospace NESHAP, Reciprocating Internal Combustion Engine NESHAP, and Halogenated Solvent NESHAP provisions. All painting, handwipe cleaning activities and other maintenance activities will use compliant materials and conform to recommended regulatory guidelines. Based on the above-described assessment, implementation of the Proposed Action would not cause any violations of the NAAQS and would not significantly increase air emissions at Robins AFB. Air emissions associated with the Proposed Action would be compliant with Robins AFB's Title V permit.

4.3 WASTE MANAGEMENT AND TOXIC MATERIALS

4.3.1 Wastewater

4.3.1.1 No-Action Alternative

Under the No-Action Alternative, sanitary and industrial wastewater would not be affected because no construction would occur and no changes to 402nd AMXG operations would be enacted. In addition, these resources are not currently being significantly impacted by the subject sites or activities at the sites. Thus, implementation of the No-

Action Alternative would not result in significant adverse or significant positive impacts to the environment as it relates to wastewater.

4.3.1.2 Proposed Action

Construction of Aircraft Maintenance Hangar: Construction activities at the Proposed Action Site would not generate significant amounts of sanitary or industrial wastewater. The new Aircraft Maintenance Hangar would be connected to the existing sanitary sewer system lines located along the eastern periphery of the site. Construction activities associated with the Proposed Action would produce neither significant positive nor significant negative effects to sanitary and industrial wastewater generation at Robins AFB.

402nd AMXG Operations: The proposed new Aircraft Maintenance Hangar would connect to the existing sanitary sewer system. The approximately 200 employees (170 new personnel) at the site would generate an estimated 5,000 gallons of sanitary wastewater per day. The impact to the wastewater treatment plant would not be significant based on the plant's capacity of 3.3 million gallons per day (MGD) and the current average of approximately 2.5 MGD.

Industrial wastewater would not be generated by the PDM activities at the proposed Aircraft Maintenance Hangar. Current operational plans for the Aircraft Maintenance Hangar do not include tapping this facility into the existing industrial wastewater lines located in the vicinity of the site.

Based on the above evaluation, 402nd AMXG operations would produce neither significant positive nor significant negative effects to sanitary and industrial wastewater generation at Robins AFB.

4.3.2 Solid Waste

4.3.2.1 No-Action Alternative

No significant adverse or significant positive impacts would occur to solid waste and the physical environment as it relates to solid waste because no change in the volume or handling of solid waste would occur at Robins AFB, and existing solid waste handling and disposal does not significantly impact the physical environment.

4.3.2.2 Proposed Action

Implementation of the Proposed Action would result in no significant positive or significant negative impacts to solid waste or to the physical environment as it relates to solid waste. As stated in **Section 3.3.2**, Houston County has committed to providing solid waste disposal services to Robins AFB, has a permitted facility with 40 years of useful life, and the county could acquire approximately 50 years of additional capacity through expansion of the landfill if needed. Hence, adequate space is available in the Houston County landfill for the solid waste that would be generated from this project.

Construction of Aircraft Maintenance Hangar: Conducting the Proposed Action would temporarily increase the generation of solid waste from the removal of asphalt pavement at the Proposed Action Site. Buried construction debris might be encountered during site grading and excavation activities, as debris generated during the initial construction of the airfield has been buried or disposed in the general area of the Proposed Action Site. This construction debris would have consisted of concrete, metal, wood and other inert materials. Building construction activities would also produce solid waste. All debris and waste materials will be recycled to the extent possible. Waste that is not recyclable will be disposed by the building contractor in approved local landfill facilities.

402nd AMXG Operations: Solid waste would be generated on a long-term basis from operation of the proposed Aircraft Maintenance Hangar. The solid waste would include

office waste, paper, plastics, metal and glass containers, and standard housekeeping materials. The waste would be generated by 402nd AMXG employees at the Aircraft Maintenance Hangar, which is approximately 1 percent of the current workforce. Office wastes will be recycled to the extent possible and would not cause significant environmental effects.

Solid wastes generated in association with the Proposed Action would be handled in accordance with Robins AFB's ISWMP.

4.3.3 Hazardous Materials and Waste

4.3.3.1 No-Action Alternative

Under the No-Action Alternative, use of hazardous materials and generation of hazardous waste would not be affected because no construction would occur and no changes to 402nd AMXG operations would be enacted. In addition, these resources are not currently being significantly impacted by the subject sites or activities at the sites. The No-Action Alternative would cause neither significant positive nor significant negative environmental effects related to hazardous materials and hazardous waste.

4.3.3.2 Proposed Action

Implementation of the Proposed Action would cause neither significant positive nor significant negative environmental effects related to hazardous materials and hazardous waste.

Construction of Aircraft Maintenance Hangar: Hazardous materials, such as fuels for construction equipment and vehicles, would be used during the site development and construction activities. These materials would be used and handled in accordance with Robins AFB's HWMP and all applicable regulations, and significant adverse impacts would not occur due to their usage.

Although no environmental contamination is known to be present at the Proposed Action Site, undetected contamination might be present in association with the stockpiled soil/fill material and the underground JP8 lines. If suspected areas of contamination are identified during the site development/excavation activities, soil testing will be performed to determine if the soils at the Proposed Action Site are contaminated and need to be removed and disposed of as hazardous waste per applicable federal and state regulations. If contaminated soil material was identified, corrective action would be regulated under the corrective action portion of the facility's Hazardous Waste Facility Permit. Any excavated soil that is determined to be hazardous waste would be segregated from other materials to the extent possible, and managed and disposed of as hazardous waste. Any hazardous waste generated would be disposed of through the DRMO.

If any hazardous waste is generated during the excavation/construction activities, this would result in a negative effect on hazardous waste generation. However, the removal of contaminated soils if detected would be beneficial to the environment.

402nd AMXG Operations: Hazardous materials would be maintained in flammables cabinets in the maintenance areas of the hangar. The hazardous materials would be similar to those used by current 402nd AMXG operations. These materials would include oils, hydraulic fluids, lubes, corrosives, solvents, paints and associated painting materials. All hazardous materials would be used and handled in accordance with Robins AFB's HWMP and all applicable regulations, and significant adverse impacts would not occur due to their usage. These maintenance activities would include minor painting activities (touch up painting with aerosol cans), handwipe cleaning operations and other routine minor maintenance activities.

Hazardous waste would be generated on a long-term basis from 402nd AMXG operations. Waste streams would include rags and petroleum products, such as hydraulic fluid mixed with used oil and hydraulic fluid mixed with solvent. The volume and quantities generated would be similar to those generated by existing 402nd AMXG operations; generation and disposal of hazardous waste is a regulated activity and would not result in significant adverse or significant beneficial impacts to the environment.

Hazardous wastes generated in association with the Proposed Action would be handled and disposed of in accordance with Robins AFB's HWMP, the facility's Hazardous Waste Facility Permit, and all local, state, and Federal regulations.

4.3.4 Toxic Materials

4.3.4.1 No-Action Alternative

The No-Action Alternative would cause neither significant positive nor significant negative environmental effects related to toxics and toxic waste because toxic materials would not be affected and these materials are not currently significantly impacting the environment.

4.3.4.2 Proposed Action

Construction of Aircraft Maintenance Hangar: Implementation of the Proposed Action would not significantly adversely or significantly positively impact toxic materials or toxic waste or the environment as it relates to these materials because no known ACMs, LBPs, PCBs or PCB-containing equipment would be disturbed by construction at the Proposed Action Site. Furthermore, if encountered, any materials and waste would be managed and disposed of per applicable regulations and disposal is a permitted activity.

402nd AMXG Operations: Operations would not involve the use of ACM, LBP or PCB-containing equipment as the use of these materials in new construction at Robins AFB is currently prohibited.

4.4 NOISE ENVIRONMENT

4.4.1 No-Action Alternative

Implementation of the No-Action Alternative would not result in significant positive or significant negative effects to the noise environment because the noise environment

would not change and the existing noise environment is not significantly impacted by the subject sites or operations at the sites.

4.4.2 Proposed Action

Construction of Aircraft Maintenance Hangar: Site development and new construction activities would not result in significant adverse impacts to the noise environment because these activities would be short-term, localized and sufficiently distanced from the nearest sensitive receptor elements. Workers would wear ear protection, as necessary, for construction activities requiring this level of protection.

402nd AMXG Operations: Noise from future operations would be generally consistent with noise from the surrounding areas and would consist primarily of noise generated by aircraft and in the case of the Proposed Action Site, aircraft maintenance activities. The Proposed Action Site is located in an area subject to levels between 70 and 79 decibel day/night levels (Middle Georgia Regional Development Center, 2004) and these noise levels are within the range of the existing 402nd AMXG operations. As a part of 402nd AMXG operations, aircraft would be towed to the hangar site by maintenance vehicles. Aircraft maintenance activities at the Proposed Action Site that would generate the most noise would include the use of overhead cranes, power tools, an air compressor and maintenance vehicles. Engine run-ups and other engine-testing procedures would not be performed at the Aircraft Maintenance Hangar. Workers would wear the same type and level of ear protection that are currently used. AFOSH Standard 48-19, *Hazardous Noise Exposure* has set an exposure limit of 85 decibels (by 8-hour time weighted average), which if exceeded would require the use of Personal Protective Equipment to protect hearing. Based on these evaluations and findings, the Proposed Action would not result in significant adverse or significant positive impacts to the noise environment at Robins AFB and the surrounding area.

4.5 BIOLOGICAL ENVIRONMENT

4.5.1 No-Action Alternative

The No-Action Alternative would have neither significant positive nor significant negative impacts on the biological environment because no construction would occur and no changes to 402nd AMXG operations would be enacted. In addition, this resource is not currently being significantly impacted by the subject sites or activities at the sites. The No-Action Alternative would cause neither significant positive nor significant negative environmental effects related to natural resources.

4.5.2 Proposed Action

No endangered, threatened, or sensitive species would be affected by the Proposed Action at the Proposed Action Site, as no species or their habitats are located in this area. Use of the base's BMPs during the course of day-to-day operations, as outlined in the Erosion, Sediment and Pollution Control Plan will prevent potential adverse effects from disturbance of the soil.

Construction of Aircraft Maintenance Hangar: The Proposed Action would not result in a significant impact to wildlife and vegetation due to modification or removal of the existing vegetation on the eastern half of the site where construction is proposed. Approximately 4,000 square feet of trees (hardwoods and pines) located adjacent to the on-site asphalt-paved road would be removed as a part of the site development activities. The mature hardwood and pine trees located on the western half of the Proposed Action Site would not be disturbed during this project. The removal of approximately 4,000 square feet of forest at the Proposed Action Site would result in any motile species living in or using this area having to relocate, and the permanent removal of this habitat on the site itself. The size of this habitat is insignificant and the number of wildlife is estimated to be insignificant when considered in the larger context of Robins AFB and the surrounding area.

402nd AMXG Operations: Operations would not result in a significant impact to wildlife and vegetation.

4.6 CULTURAL RESOURCES

4.6.1 No-Action Alternative

Conducting no action would have no effect on cultural resources because no construction would occur and no changes to 402nd AMXG operations would be enacted. In addition, these resources are not currently being impacted by the subject sites or activities at the sites. Cultural resources on Robins AFB would continue to be managed and protected as required by federal and state agencies.

4.6.2 Proposed Action

Construction of Aircraft Maintenance Hangar: Based on previous survey findings, no archaeological resources would be affected by implementation of the Proposed Action at the Proposed Action Site. No standing structures are located within the Proposed Action Site, and no effect on historic cultural resources on Robins AFB would occur due to the construction activities.

If artifacts are identified, excavation activities will cease and plans will be developed to address the resource, per Robins AFB's *Integrated Cultural Resources Management Plan* (ICRMP). When cultural resources are inadvertently discovered, project personnel are directed to avoid the site of discovery and immediately contact the Robins AFB Cultural Resources Manager (CRM). All work in the area of discovery must stop until it can be investigated. The CRM will send a qualified representative to visit the discovery site. The resource will then be recorded, evaluated, and the effects mitigated as necessary.

Georgia Department of Natural Resources Historic Preservation Division (HPD), in a letter dated 28 March 2008 (**Appendix B**), stated that they believe that no historic properties or archaeological resources that are listed in or eligible for listing in the NRHP

would be affected by this undertaking. 78th CEG/CEV will further coordinate with HPD if there are any changes to this project as proposed.

402nd AMXG Operations: Operations would not affect archaeological or historic resources at Robins AFB.

4.7 SOCIOECONOMIC ENVIRONMENT

4.7.1 No-Action Alternative

The socioeconomic environment would not change significantly under the No-Action Alternative, when compared to the economy associated with Robins AFB and the Warner Robins area. Robins AFB would continue to exert a significant positive impact on the economy of the Middle Georgia region of influence. However, the benefits of construction and operating dollars associated with the new Aircraft Maintenance Hangar, and the tax revenues and salaries associated with approximately 170 new 402nd AMXG operations jobs would not be realized. Minority populations and low-income populations would not be significantly adversely or significantly positively impacted. Nor would significant environmental health risks and safety risks to children occur. Hence, implementation of the No-Action Alternative would result in neither significant positive nor significant negative effects to the socioeconomic environment.

4.7.2 Proposed Action

The Proposed Action would provide additional economic stimulus to the regional economy through new construction expenditures and increased annual expenditures associated with staffing, operating and maintaining the new Aircraft Maintenance Hangar. Construction is expected to cost approximately $22.5 million in the form of construction labor salaries, equipment, materials, site improvements, pavements, communications and utilities. The construction would positively impact the economy, with expenditures mostly in the local area with local contractors, in FY 2009 through FY 2011, as the construction would take approximately 25 months to complete.

An estimated 170 new employees would be hired in FY2011 to support 402nd AMXG operations at the new hangar, providing a significant addition to the local economy. These new employees would live in the Warner Robins area, and hence, increase the tax revenues and spending base in the local area. Operating and maintenance expenditures for the new Aircraft Maintenance Hangar would also directly benefit the local economy.

The site is currently used for overflow storage of moveable equipment. The moveable equipment that is stored at the site is primarily old, is not currently in use or is used rarely, and the storage density of the equipment is low. Based on the foregoing reasons, when this moveable equipment is removed from the Proposed Action Site, either to another area or for disposal, there would be no impacts to the 402nd AMXG operations.

No significant adverse environmental impacts would occur as a result of the Proposed Action and no populations (minority, low-income, or otherwise) would be disproportionately impacted; therefore, no significant impacts with regard to environmental justice would occur.

4.8 TRANSPORTATION AND SAFETY

4.8.1 No-Action Alternative

Under the No-Action Alternative, there would be no significant positive or significant adverse effects to transportation or safety because no construction would occur and no changes to 402nd AMXG operations would be enacted. In addition, these resources are not currently being significantly impacted by the subject sites or activities at the sites. 402nd AMXG personnel would continue to perform aircraft maintenance operations outdoors and be subject to adverse weather conditions.

4.8.2 Proposed Action

Construction of Aircraft Maintenance Hangar: Implementation of the construction phase of the Proposed Action would not significantly positively or significantly adversely

impact traffic and safety at Robins AFB or the surrounding area. Construction contractors would be required to follow appropriate Robins AFB and OSHA safety rules during transit to the new Aircraft Maintenance Hangar. Construction vehicles would enter base through Gate 4 and drive approximately 2.5 miles to the Proposed Action Site, while construction workers in non-commercial vehicles could enter Robins AFB through any of the other entrance gates.

Construction and renovation activities would involve the operation of heavy machinery and other equipment. The base will require the construction contractor to implement actions consistent with governing regulations to ensure worker health and safety during construction.

402nd AMXG Operations: Traffic flow would increase in the area as the new Aircraft Maintenance Hangar became occupied, however the increase would not be significant when considered in the context of other operations in the area. The 170 new personnel working in the new Aircraft Maintenance Hangar would be required to follow Robins AFB driving rules and park their vehicles in parking spaces in existing parking lots located approximately one-quarter mile south of the Proposed Action Site. Ample parking space is available in this parking lot. Traffic on the ramps resulting from the repositioning and moving of aircraft to accommodate repair schedules and workspace would be minimized with the operation of the new hangar.

The transfer of PDM activities into the new Aircraft Maintenance Hangar would provide a controlled environment for maintenance personnel and result in a higher degree of worker safety. The employees would also be required to follow DoD, AFOSH, OSHA, and RCRA regulations; by following these regulations, no significant safety concerns are associated with the Proposed Action.

Operations at the new hangar would involve the maintenance and operation of equipment and other machinery by 402nd AMXG personnel. Adhering to all applicable safety regulations and guidelines would result in insignificant safety concerns.

Based on the evaluation described above, the Proposed Action would not result in significant positive or significant adverse effects to transportation and safety.

4.9 CUMULATIVE IMPACTS

Council on Environmental Quality (CEQ) regulations stipulate that potential environmental impacts resulting from cumulative impacts should be considered within an EA. A cumulative impact is the impact on the environment which results from the incremental impact of an action when added to other past, present, and reasonably foreseeable future 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 presented below. One recently completed project and two future actions were identified as potentially producing cumulative environmental effects in the area of the Proposed Action Site. No projects that are currently under construction were identified as potentially producing cumulative environmental effects in the area of the Proposed Action Site. The actions are described as follows.

202nd Engineering Installation Squadron: Relocation of the 202nd Engineering Installation Squadron (EIS) on the western side of the airfield (between Centurion Boulevard and Perimeter Road) was identified as potentially producing cumulative environmental effects in the immediate vicinity of the Proposed Action area. The 202nd EIS plans to relocate existing vehicle maintenance and headquarters/operations functions to Buildings 2312 and 2350, respectively. To provide for a vehicle maintenance shop and associated parking shed, this project includes the renovation of approximately 8,550 square feet of existing building space and creation of 15,000 square feet of new parking area. To provide for a headquarters/operations facility, this project includes renovation/addition of approximately 29,000 square feet of existing interior building space to provide communications/electronics, training, shops, office and storage space. Approximately 125 personnel from the 202nd EIS would relocate from Middle Georgia Regional Airport in Macon, Georgia to this area of Robins AFB as a part of this action. The approximately 125 personnel would consist of 16 full-time office/administrative staff and approximately 105 part-time ANG personnel. The 105 ANG personnel would only be on Robins AFB one weekend per month for training. The shop space located on the nearby B1 ramp is currently in full-time use by the 116th Air Control Wing (ACW) and the rest of the space is used occasionally.

The addition of shop space by the 202nd EIS would result in an insignificant increase in building maintenance services. The 202nd EIS project would increase the area of impermeable land surface by no more than approximately 44,000 square feet, and temporarily increase air emissions, noise, and volume of solid waste and toxic materials generated by construction/renovation activities. Due to the new operations and 125 additional personnel, on a long-term basis, this project would increase the generation of solid waste and sanitary wastewater, the consumption of potable water, and the number of vehicles on local roadways and entering Robins AFB.

New Air Traffic Control Tower: Construction of a new Control Tower for the 78th Operational Support Squadron (OSS), located on the western side of the airfield at the corner of Eagle Avenue and Mustang Street was also identified as potentially producing cumulative environmental effects in the immediate vicinity of the Proposed Action area. The new Control Tower would be constructed on the western side of Taxiway J and require the demolition of the existing control tower. The construction and demolition activities associated with these projects would increase the area of permeable land surface by approximately 1 acre, and temporarily increase air emissions, noise, and volume of solid waste and toxic materials generated by construction/demolition activities.

Fire and Crash Rescue Facility: The new Fire and Crash Rescue facility, located on the western side of the airfield (approximately 1,000 feet southeast of the intersection of Eagle Avenue and Perimeter Road) was identified as potentially producing cumulative environmental effects in the immediate vicinity of the Proposed Action area. The new Fire and Crash Rescue Facility is located immediately south of the new Aircraft Maintenance Hangar site. The development of the site has increased the area of impermeable land surface by approximately 1.5 acres (building and paved areas) and resulted in a temporary increase in air emissions, noise, and volume of solid waste and toxic materials generated by construction/demolition activities.

Potential cumulative effects of the above-listed projects will be addressed through existing permit requirements or by obtaining permit modifications as necessary.

Cumulative increases in storm water runoff due to increased impermeable area at the above-described Proposed Action sites would occur. Site-specific design features would be employed at each of the sites to limit the volume and rate of storm water runoff so that the effect of the cumulative volume of runoff is insignificant. The construction contractor will be required to implement practices under an approved Erosion, Sediment and Pollution Control Plan, designed for effects on storm water and surface water quality to

be insignificant. Also, the cumulative effect of numerous construction projects on storm water will be addressed, as appropriate, under individual approved Erosion, Sediment and Pollution Control Plans, designed for effects on cumulative storm water and surface water quality to be insignificant.

The construction phase of these actions would increase carbon monoxide, hydrocarbons and nitrogen oxides from construction employee traffic and operation of heavy equipment. However, the increase in emissions from construction worker vehicles would be temporary and insignificant to the environment when considered in the context of Robins AFB and the nearby areas. Operation of the new Aircraft Maintenance Hangar would emit minimal air emissions.

Cumulative increases in the generation of solid waste would occur from construction activities and the additional personnel associated with the actions. Waste materials would be recycled as feasible and would not be significant when compared to the total solid waste generation for Robins AFB.

Cumulative increases to sanitary wastewater generation and the consumption of potable water would occur with the additional personnel associated with the actions. These increases would not be significant when compared to the total generation and consumption for Robins AFB.

The effects of noise generation from construction activities associated with the projects would be temporary and insignificant. Noise would not have a cumulative adverse effect on the environment.

Conducting these actions would produce slight positive effects within the region of economic influence during the construction of the facilities. The operation of the Aircraft Maintenance Hangar would employ 170 new civilian personnel. The cumulative effect of the projects would result in significant beneficial economic impacts to the local economy.

Insignificant increases to cumulative effects on transportation at Robins AFB would occur through the increased personal vehicle traffic associated with the new Aircraft Maintenance Hangar.

The construction and operation of the Aircraft Maintenance Hangar would not produce significant adverse or significant positive short-term or long-term cumulative effects. Pursuant to the aforementioned, the remaining environmental resources and elements would not be significantly adversely affected or positively affected on a cumulative level because these resources and elements would not be significantly affected under the Proposed Action, and the other listed projects were not identified as significantly impacting these resources. Thus, a significant cumulative effect would not occur from the implementation of the Proposed Action.

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5.0 LIST OF PREPARERS

Charles Allen, P.E. – Independent Technical Reviewer, URS - Mr. Allen has a B.S. in Civil Engineering, and is a Professional Engineer with over 35 years experience on a variety of NEPA environmental impact assessments, civil, geotechnical, and seismic engineering projects, Phase I and II Environmental Site Assessments, waste stream and pollution prevention projects, environmental permitting, and hazards analysis. He has served as the Independent Technical Reviewer for several NEPA EAs prepared on behalf of 78 CEG/CEV and for several other Federal agencies including U.S. Department of Veterans Affairs, U.S. Department of Justice, U.S. Army Corps of Engineers, U.S. Postal Service, among others.

Kenneth Branton – Program Manager, URS - Mr. Branton has a B.S. in Mining and Petroleum Engineering. He is a retired Lieutenant Colonel (LtCol) from the U.S. Air Force with 22 years of service as a Bioenvironmental Engineer. LtCol Branton served as the Deputy Director of Environmental Management at Robins AFB and the Chief of the Environmental Restoration Division from 1991-96. He also served as the Deputy Director of the Air Force Environmental Research Laboratory at Tyndall AFB from 1996-98. He completed the Shipley course on "*How to Manage the EIAP/NEPA Process: Air Force Specific (EIAP)"* in 1992 and has conducted environmental impact assessments and served as the Independent Technical Reviewer on numerous Air Force and FEMA projects. Mr. Branton has nine years' experience as a consultant environmental engineer of which seven years has been at Robins AFB as a Senior Program Manager managing all types of environmental projects for the conservation, compliance, remediation, and pollution prevention programs.

Patricia Slade – Project Manager, URS - Ms. Slade has a B.S. in geology and more than 20 years of experience in NEPA documentation, environmental planning, environmental due diligence, and geological studies. She has served as the NEPA Project Manager for previous projects completed for the Air Force, U.S. Army Corps of Engineers, Federal Emergency Management Agency, U.S. Department of Justice, U.S. Department of Veterans Affairs, U.S. Postal Service, among others. She works on a

variety of inter-disciplinary projects, including storm water/NPDES permitting, Phase I ESAs and Phase II investigations, geotechnical investigations, asbestos and lead-based paint surveys, cultural resources surveys, indoor air quality surveys, county-wide flood damage reduction projects, and regulatory compliance projects. She has performed or managed completion of numerous NEPA documents for a variety of federal and state agencies.

Chris Taylor – Environmental Scientist, URS - Mr. Taylor has a B.S. in geology and more than 18 years of relevant experience in environmental due diligence, NEPA documentation, and geological studies. He has prepared several NEPA EAs on behalf of 78 CEG/CEV and worked with other federal authorities for proposed development projects including the Air Force, U.S. Army Corps of Engineers, U.S. Department of Veterans Affairs, Federal Aviation Administration, U.S. Postal Service, among others. He works on a variety of inter-disciplinary projects, including Phase I ESAs and Phase II investigations; geotechnical investigations; asbestos, lead-based paint, lead in drinking water and radon surveys; indoor air quality surveys; and regulatory compliance projects.

Ann Yarnell – Ecologist/Environmental Scientist, URS - Ms. Yarnell is an environmental scientist with a Bachelor's degree in environmental resource management and 7 years of relevant environmental and NEPA experience. She has prepared several NEPA EAs on behalf of 78 CEG/CEV and several other federal authorities for proposed development projects; and conducted over 200 NEPA screenings to evaluate the potential for significant effects of projects on endangered species and wetlands. Ms. Yarnell has assisted with multiple aspects of regulatory compliance from hazardous waste, air, waste water, storm water, spill response, and environmental compliance audits.

6.0 PERSONS CONTACTED

Russell Adams – 78 CEG/CEVQ

Paul Barker – 78 CEG/CEVOS

Capt Brent Clark – 78 OSS/OSA

Scott Edge – 402 AMXG/MXAOPF

Stephen A. Hammack, URS Corp (78 CEG/CEV On-site Archaeologist)

Mike Kazenstein – 560 AMXS/MXAB

Fred Otto – 78 CEG/CEVP

Sam F. Rocker – 78 CEG/CEVP

Bob Sargent – 78 CEG/CEVP

David Trescott - 778 CES/CECM

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2007. *Concept Site Plan – Airfield Restrictions. Cargo Aircraft Hangar (Small [C130] / Med [C17] Cargo Aircraft).* March 07.

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FIGURES

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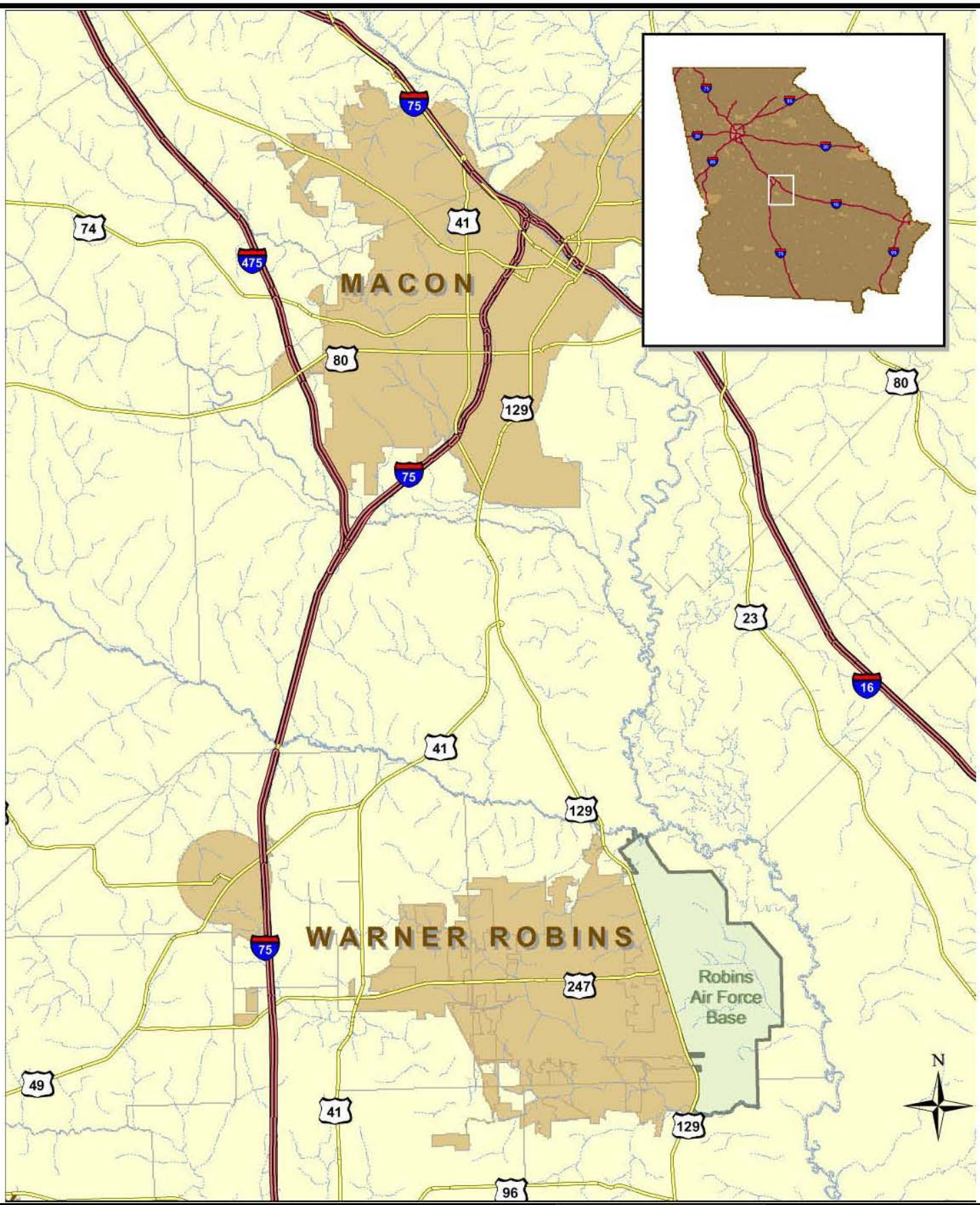

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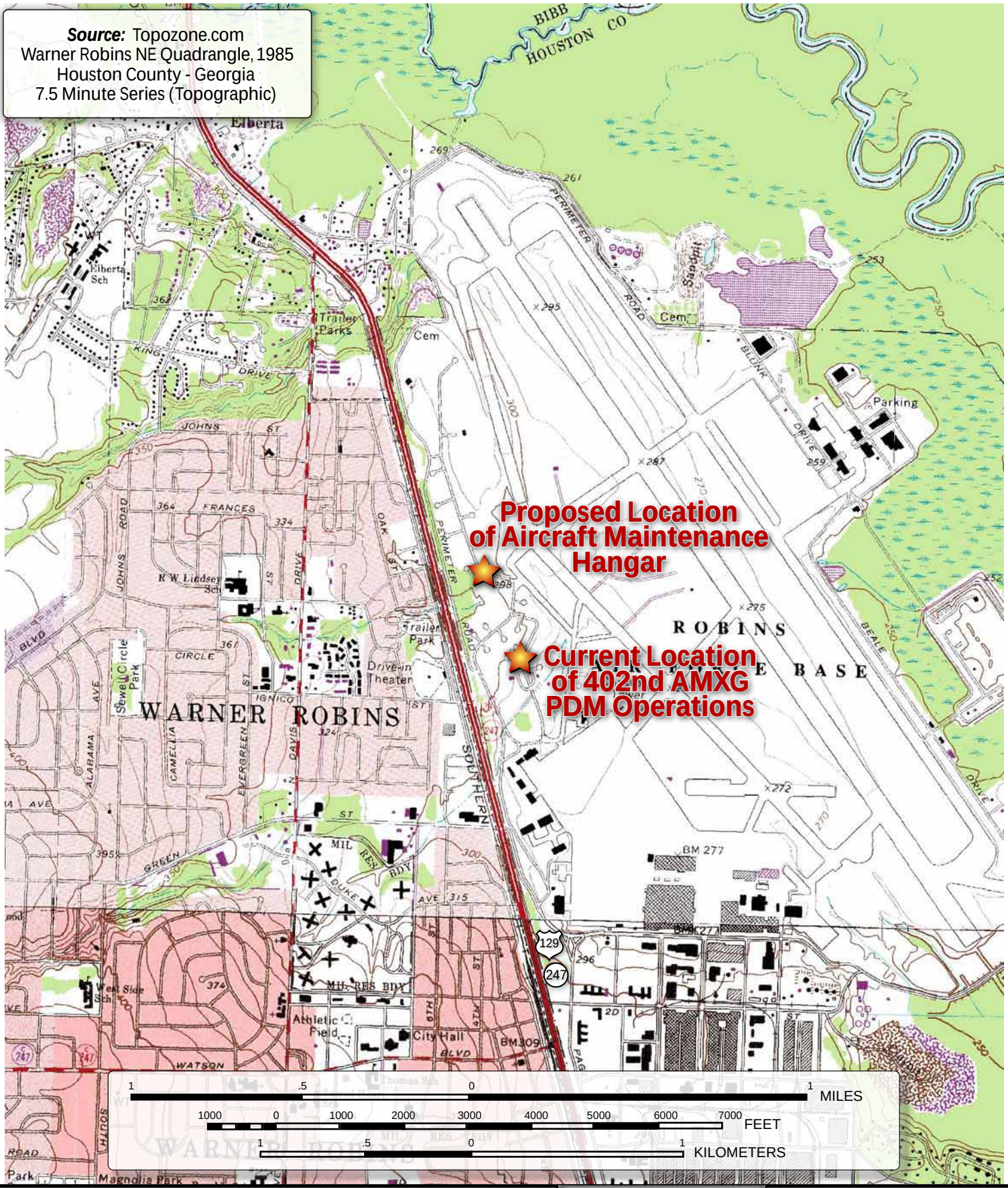

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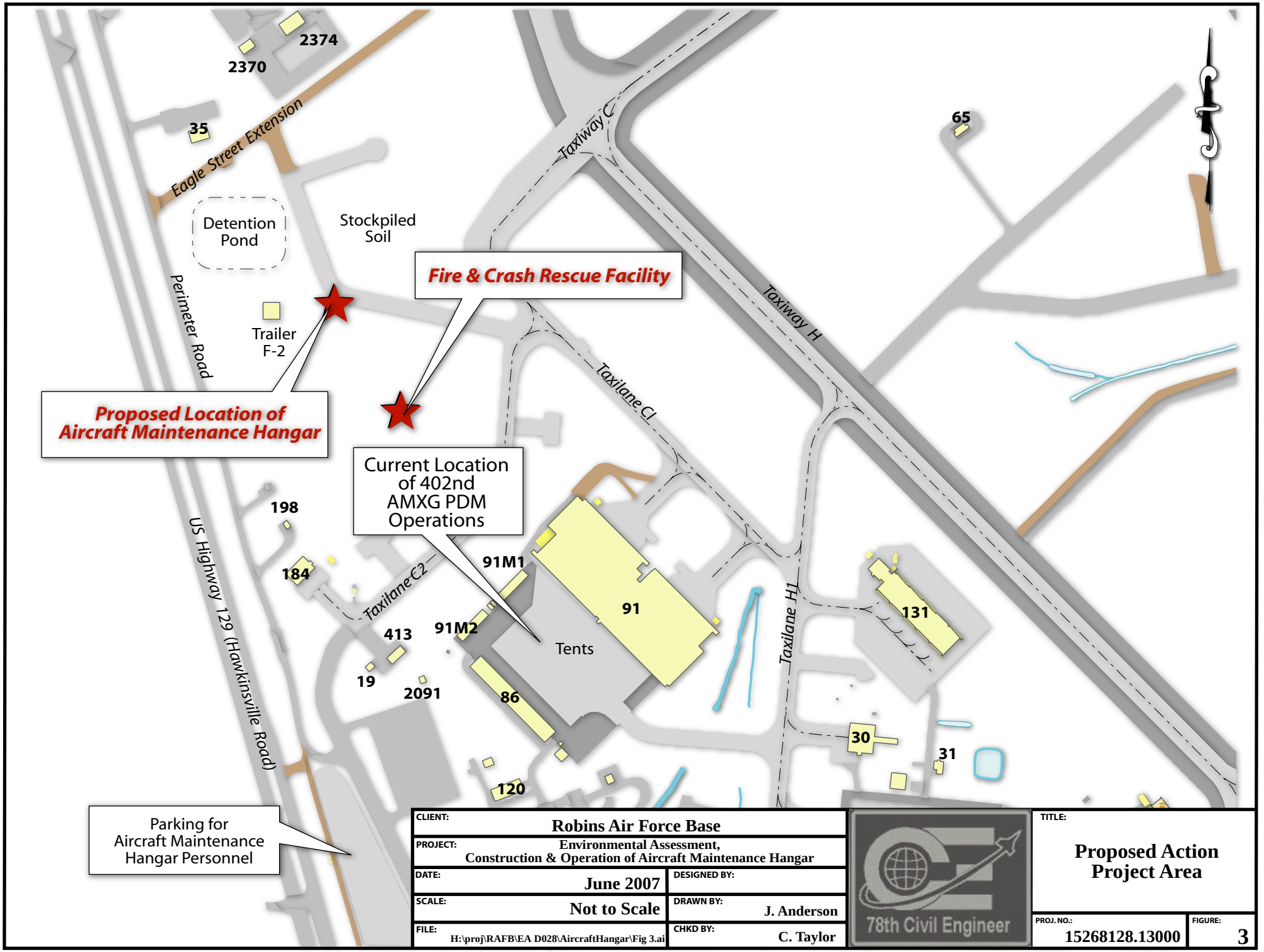

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FILE:	H:\proj\RAFB\EA D028\AircraftHangar\Fig 3.ai
CHKD BY:	C. Taylor

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TITLE: **Proposed Action Project Area**

PROJ. NO.: 15268128.13000

FIGURE: 3

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CLIENT:	Robins Air Force Base		TITLE: Aerial Map
PROJECT:	Environmental Assessment, Construction & Operation of Aircraft Maintenance Hangar		
DATE:	July 2007	DESIGNED BY:	
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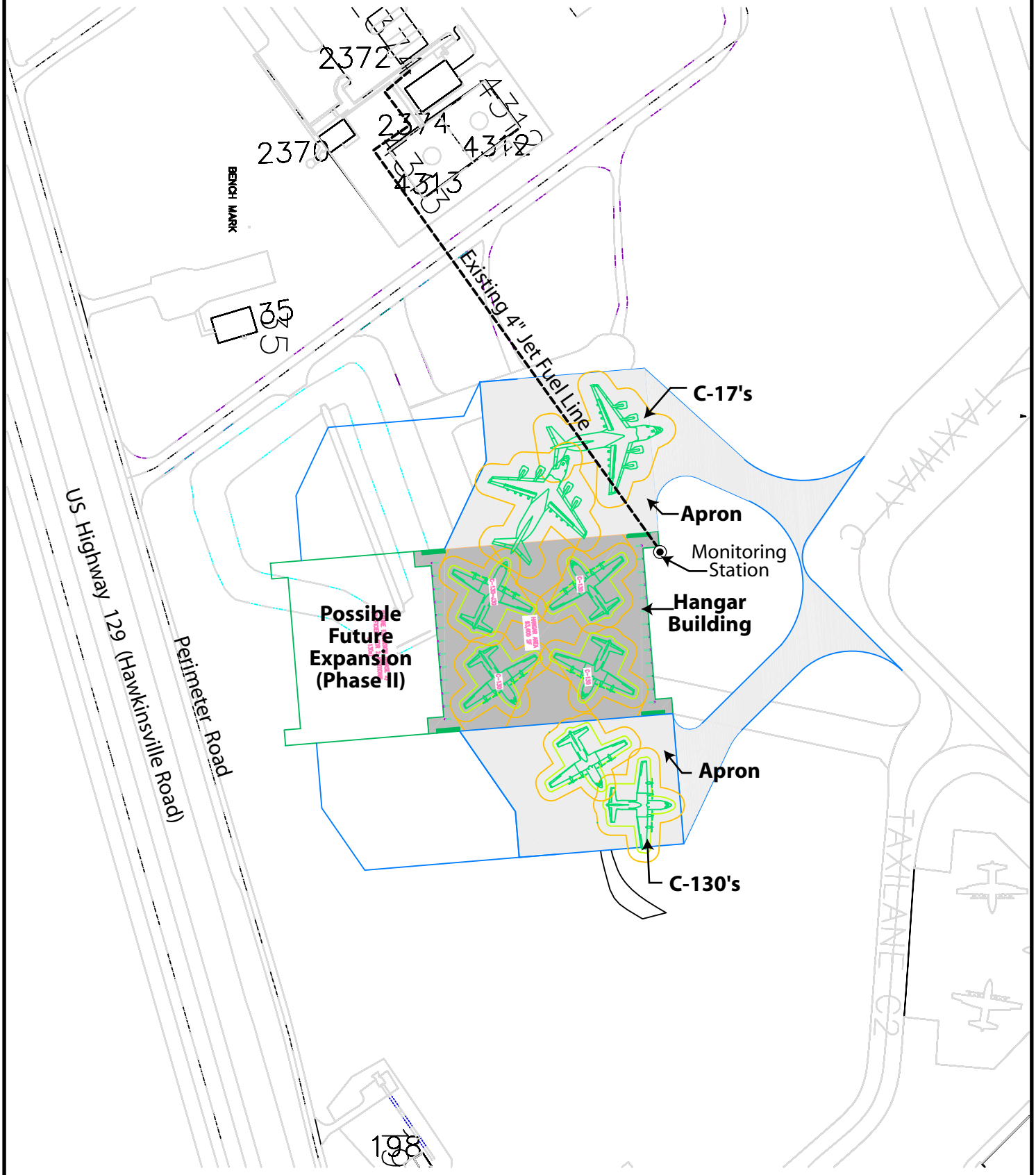

CLIENT:	Robins Air Force Base		TITLE: Projected Layout of the Aircraft Maintenance Hangar Facility
PROJECT:	Environmental Assessment, Construction & Operation of Aircraft Maintenance Hangar		
DATE: June 2007	DESIGNED BY:		
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FILE: H:\Proj\Robins\EAs\EA AircraftHangar\Figures\Fiure 5.ai	CHECKED BY: C. Taylor	PROJ NO.: 15268128.13000	FIG.: 5

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APPENDIX A

ROBINS AIR FORCE BASE BACKGROUND INFORMATION

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This appendix presents relevant background information on Robins Air Force Base. Only sections relevant to the subject EA are included.

1.0 INTRODUCTION

This appendix describes the existing environment in the area potentially affected by the alternatives being evaluated. The chapter begins with a description of the location, history, and current missions of Robins AFB. The remainder of the chapter is organized based on descriptions of the components of the environment that may be affected, in the following order: physical environment, air quality, biological environment, cultural resources, land use, noise environment, safety, socioeconomic resources, infrastructure, and waste management. The effects of the alternatives on the baseline conditions of each environmental component are evaluated in Chapter 4, Environmental Consequences.

2.0 BASE DESCRIPTION, HISTORY, AND CURRENT MISSIONS

Not relevant to this EA.

3.0 PHYSICAL ENVIRONMENT

Not relevant to this EA.

4.0 AIR QUALITY

4.1 Regional Air Quality

The State of Georgia is attaining the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants in the middle Georgia area with the following exceptions: ozone (O_3) and PM within Bibb and Monroe counties. Georgia is developing a State Implementation Plan (SIP) that outlines strategies to bring these counties back into attainment. Air quality in Houston County, which includes Robins AFB, is currently classified as an attainment area (i.e., pollutant levels are below the standards) for all NAAQS. Air monitoring stations closest to the base are located in Warner Robins and Macon.

4.2 Air Emission Sources

The maintenance and repair of aircraft are the primary stationary sources of air emissions at Robins AFB. The large number of aircraft serviced by the base in combination with the variety of aircraft types and services performed create a large and complex group of air emission sources. The primary emission sources include painting and depainting operations, solvent cleaning, and chromium plating and anodizing. Other sources include fuel storage tanks,

peaking power generators, boilers, and various sources of fugitive volatile organic compounds (VOCs).

There are more than 30 individual painting operations located on the base, ranging from small booths used for parts to large hangars used for the exterior coating of transport aircraft. Emissions from these sources consist primarily of the volatile components of the paints.

Solvent-cleaning operations occur at nearly every step of the repair and maintenance activities. The cleaning processes include tank and vapor degreasing, although the majority are hand-wipe cleaning operations. Emissions from cleaning operations result from the evaporation of the cleaning agents and typically are fugitive in nature.

The boilers on the base are used primarily for generating steam for comfort heating of the buildings. Natural gas is used as the primary fuel, with No. 2 Diesel Fuel and Air Mixed Propane as backups for most of the large boilers.

4.3 Air Quality Requirements at Robins AFB

Robins AFB is subject to a number of air quality regulatory requirements, including the Georgia Rules for Air Quality Control, the U.S. EPA requirements under the Clean Air Act, including Titles III, V, and VI of the 1990 Clean Air Act Amendments, the National Emission Standards for Hazardous Air Pollutants (NESHAP), and the New Source Performance Standards (NSPS).

4.3.1 Title III Requirements

The original Clean Air Act was legislated in 1963. Much of the structure, lacking in the original Act, was established with the 1970 Clean Air Act Amendments (1970 Amendments). The Clean Air Act Amendments of 1990 (1990 Amendments), under Section 112, was the legislative vehicle that created additional source categories for the Title III National Emission Standards for Hazardous Air Pollutants (NESHAP) program. The intent of the standards is to protect public health by requiring existing and new major sources to control emissions to the level achievable by maximum achievable control technology (MACT), consistent with Section 112(d) of the 1990 Amendments. A listing of the chemicals and classes of compounds that are considered hazardous air pollutants (HAPs), also referred to as "air toxics," is presented in Section 112(b) of the 1990 Amendments. The most significant NESHAP for Robins AFB is the aerospace manufacturing and rework facility NESHAP, also referred to as the "aerospace NESHAP."

4.3.2 Aerospace NESHAP

Draft standards for aerospace manufacturing and rework facilities were proposed in the *Federal Register* on 6 June 1994. The final rule for the aerospace NESHAP was published in the *Federal Register* dated 1 September 1995 (codified as 40 CFR 63, Subpart GG) with final compliance

occurring on 1 September 1998. The primary focus of this regulation is to address surface coating, depainting and solvent cleaning operations at aerospace manufacturing and rework facilities. A list of the HAPs most commonly associated with this type of facility includes chromium compounds, cadmium compounds, methylene chloride, toluene, xylene, methyl ethyl ketone, ethylene glycol, and glycol ethers.

The aerospace NESHAP required that existing processes at military aerospace original equipment manufacturer (OEM) and rework operations that are subject to the NESHAP achieve compliance with the control requirements of the standards 1 September 1998. The aerospace NESHAP covers several air emission source categories specifically associated with the industrial activities at Robins AFB. The major air emission source categories applicable under the aerospace NESHAP for Robins AFB are: painting operations (primer and topcoat applications), depainting operations, solvent cleaning operations (hand wipe solvent cleaning and spray gun cleaning), and waste handling and storage operations (RAFB, 1996).

4.3.3 Chromium Electroplating and Anodizing NESHAP

Not relevant to this EA.

4.3.4 Halogenated Solvent Cleaning NESHAP

Not relevant to this EA.

4.3.5 Title V Program

The Operating Permits program under Title V of the 1990 Amendments is the backbone for implementing the statute's requirements for industrial sources of air pollution. The program requires that all major sources of regulated air pollutants obtain a federally enforceable air operating permit under an EPA-approved program administered by the appropriate permitting authority (preferably state, regional, or local, but possibly EPA if there is no approved non-federal program). These permits are not intended to impose any new emission limits. The main goal of the permit is to identify and record existing requirements applicable to regulated sources and to assure compliance with these existing requirements. The existing requirements for Robins AFB include the aerospace NESHAP standards, the halogenated solvent cleaning NESHAP standards, and the chromium electroplating and anodizing NESHAP standards, discussed above (RAFB, 1996). Other existing requirements include the SIP and the NSPS for boilers.

The pollutants of concern for Robins AFB that will be addressed in the Title V air permit application for the base include HAPs and criteria pollutants. Robins AFB submitted its original Title V permit application in October 1996 with the fourth and final amendment being submitted in March 2003. The permit applications included both significant and insignificant air emission

sources. The Title V permit was issued for Robins AFB in November 2003. For the purposes of Title V air permitting under the 1990 Amendments and subsequent implementing regulations, Robins AFB is considered to be a "major" source of air emissions for one or more regulated pollutants. Air emission levels for Robins AFB included in the March 2003 Title V air permit application are summarized in **Table 4-1**.

Table 4-1. October 1996 Title V Air Permit Application Emission Estimates for Robins AFB

Air Pollutant	Maximum Anticipated Actual Emissions (tons/yr)	Average Anticipated Actual Emissions for Next 5 years (tons/yr)
Particulate Matter	14.3	7.9
PM-10	13.9	7.7
Sulfur Dioxide	31.4	15
Volatile Organic Compounds	281.5	208
Nitrogen Oxides	85.3	53.1
Total Hazardous Air Pollutants	155.6	137.0

Although Title V is a federal program, there is provision for each state, with EPA approval, to develop and administer its own Operating Permits program. Georgia is one of the states that has chosen to operate its own program with EPA oversight. Georgia submitted its program for EPA approval on 12 November 1993. The EPA published the final interim approval for Georgia's program in the *Federal Register* dated 22 November 1995. Georgia's Title V operating permit program became effective on 22 December 1995 (RAFB, 1996).

4.3.6 State Air Quality Permit

In the 1970 Amendments to the Clean Air Act, EPA was required to establish National Ambient Air Quality Standards (NAAQS). EPA established two levels of protection for the NAAQS, i.e., primary standards and secondary standards. The primary standards are designed to protect the public health and are set at levels that will protect the most sensitive individual. The secondary standards are meant to be equal to or more stringent than the primary standards and are designed to protect the public welfare. NAAQS now exist for six criteria pollutants, i.e., carbon monoxide, lead, nitrogen oxides, ozone, particulate matter, and sulfur dioxide. Robins AFB is located in an attainment area, which means that the NAAQS are being met in the surrounding area (Houston County).

4.4 Emission Reductions

The reduction of hazardous air emissions (HAPs) is an essential part of the pollution prevention program at Robins AFB. Included are reductions in the types and quantities of toxic materials (i.e., HAPs or other toxic materials listed as pollutants-of-concern) used and released to the atmosphere. Past and ongoing projects at Robins AFB have contributed to reductions in toxic material purchases and subsequent potential air emission reductions. These projects mainly have been and currently are being accomplished in the painting, depainting, and solvent cleaning processes. Major projects for reducing the usage of methylene chloride, phenol, and toluene are based on employment of a pressurized water/bicarbonate of soda paint-stripping process (Aquamiser) as a replacement for various chemical-based paint stripping/cleaning processes. Other projects have reduced or eliminated the use of methyl ethyl ketone and methyl isobutyl ketone.

4.5 References

Robins AFB (RAFB). July 1996. *Pollution Prevention Management Action Plan for Warner Robins Air Logistics Center, Robins AFB, Georgia*. Final Plan. Prepared for Environmental Management Directorate, Robins AFB, Georgia.

5.0 BIOLOGICAL ENVIRONMENT

Not relevant to this EA.

6.0 CULTURAL RESOURCES

Not relevant to this EA.

7.0 LAND USE

Not relevant to this EA.

8.0 NOISE ENVIRONMENT

Not relevant to this EA.

9.0 SAFETY

Not relevant to this EA.

10.0 SOCIOECONOMIC RESOURCES

Not relevant to this EA.

11.0 INFRASTRUCTURE

The infrastructure of Robins AFB provides an overview of existing utilities (water supply, wastewater collection and treatment systems, and energy distribution systems) and transportation systems.

11.1 Water Supply System

Not relevant to this EA.

11.2 Sanitary Sewer System

11.2.1 Existing Conditions

The sanitary sewage treatment system includes a collection system (combination of gravity feed and force mains) and a treatment plant. The sanitary treatment facility consists of Sanitary Treatment Plants (STP) No. 1 and No. 2. Sanitary Treatment Plant No. 1, constructed in 1975, processes all of the sanitary wastewater flow on the base. Sanitary Treatment Plant No. 2 has been inactive since 1979. All base operations (including industrial, housing, and food services) contribute wastewater to the sanitary sewer system. There is a workforce of approximately 20,000 employees (civilian and military). There are approximately 2,066 base housing and dormitory units contributing to the sewer system.

There are no off-base areas connected to the sanitary sewer collection system. A small number of base areas (campground, dog kennel, etc.) are connected to the sanitary sewer system. There are no package treatment plants used by the base.

11.2.2 Collection System

The sanitary sewerage collection system includes over 48 miles of gravity sewers, approximately 45 sanitary wastewater lift stations, and 13 miles of force main. Each lift station has two pumps, and the pumps range from 1 to 40 horsepower. Pipe sizes range from 4-inch to 18-inch mains and are constructed from various materials, including HDPE, PVC, clay tile, and cast iron. The discharge from the industrial wastewater treatment plant #1 is pumped to the head of the sewage treatment plant.

11.2.3 Treatment Plant

The sanitary sewage treatment plant (STP) provides advanced (tertiary) treatment. It consists of a primary screen, grit chamber, seven primary clarifiers, two high/low rate trickling filters, two nitrification tanks, two secondary clarifiers, four tertiary sand filters, and an ultraviolet (UV) system for disinfection. The chlorination system with some on-site storage of chlorine (a maximum of seven 150-pound bottles) has been retained to assist the UV system with during

high loadings and during unit downtimes (for maintenance such as UV bulb replacement). The sludge handling capabilities consist of aerobic digestors, drying beds, and a centrifuge. The centrifuge is a primary means of drying the sludge. The dry beds are only used when the centrifuge is down for repair. Sludge generated from this facility is stored in roll-off dumpsters and disposed of at off-base sanitary landfills as a non-hazardous waste. The primary treatment system removes 44 percent biological oxygen demand (BOD) and 58 percent suspended solids. The secondary treatment system removes 98 percent BOD and suspended solids. After leaving the tertiary sand filters, the plant has a total removal of >98.9 percent BOD and >99.3 percent suspended solids. Treated effluent is discharged to the Ocmulgee River.

Most flow through the plant is gravity flow. The daily flow rate averages 2.3 MGD, and the plant capacity is 3.3 MGD. Effluent is monitored for BOD, suspended solids, and chlorine residual. Discharges are well below National Pollutant Discharge Elimination System (NPDES) permit limits. (Permit No. GA0002852 has an expiration date of July 31, 2010.)

An additional STP was operational from 1943 through approximately 1979. This facility is located off Hannah Road near Seventh Street and is used only as a pumping station.

11.2.4 Planned Improvements

The base has recently completed a project to upgrade the blower lines and blower controls on the nitrification tank, cleaning and line primary clarifiers, and updated secondary clarifier to enhance the efficient operation of the STP. Projects in the planning stages or in the process of being implemented include an upgrade to the industrial water feed system and implementing a SCADA system to control and monitor the plant. There is also a long term goal to utilize some of the existing tanks to equalize the STP flow.

11.2.5 Assessment

With the completion of all of the improvements noted in Section 4.2, the plant is in relatively good shape. In the longer view, the plant has been in service for many years and will continue to require upgrades and repairs on the aging system. The capacity of 3.3 MGD for the Robins AFB sanitary sewer system is adequate to handle the current average flow of 2.3 MGD with excess capacity of over 30 percent. The STP has an excess plant design capacity but is faced with the task of operating a sanitary plant that has an increasing percentage of industrial waste due to the decreasing number of on base housing units providing domestic waste.

11.3 Industrial Wastewater System

11.3.1 Existing Conditions

Robins AFB has two industrial wastewater treatment plants. Discharge into the Ocmulgee River from these two wastewater treatment plants is allowed under the same NPDES permit as the STP (Permit #GA0002852).

11.3.2 Industrial Wastewater Treatment Plant No. 1

Industrial Wastewater Treatment Plant (IWTP) No. 1 treats all wastewater from the industrial area of the base except for the metal plating shops in Building 142. This includes wastewaters from the baking sodawater/ high pressure water aircraft paint stripping operations for the various aircraft directorates and other related wastewater generating repair activities. The industrial wastewaters flow through approximately 6,200 feet of service piping, over 65,000 feet of mains, and over 32,000 feet of force mains (a total of over 103,000 feet of industrial wastewater piping). The wastewater flowing into IWTP No. 1 contains oils, grease, dissolved metals, paint residues, and solvents. Wastewater is collected in wet wells and retention basins and is gravity fed or pumped to the various treatment processes. Treatment includes removal of solids (mostly paint chips) by a rotating screen. Paint chips are dewatered through an auger then containerized for disposal by the hazardous waste facility. An inclined plate oil water separator follows this process The oil is also containerized and disposed of as mentioned above and the removal of metals (through the addition of sodium hydroxide and ferrous sulfate aid in the removal of the metals). Sludge from the metals precipitation clarifier is pumped to a larger tank and allowed to settle, which promotes sludge thickening. (Excess water from this process is pumped back to the basins.) The thickened sludges from various steps in the treatment process are pumped to a holding tank where they are mixed with lime. This mixture is processed through a plate and frame filter press with the filter cake being containerized and sent off-site for recycling. Recent modifications to the STP have added biological treatment, sand filters, and carbon filters to the metals removal process. Wastewater from IWTP No. 1 is pumped to the STP where it is commingled with the sanitary wastewater flow at the head of the STP. The STP provides the final treatment for biological oxygen demand (BOD) and chemical oxygen demand (COD) prior to effluent discharge through NPDES outfall No. 009. The average flow into IWTP No. 1 is 0.50 MGD with a peak flow of 0.79 MGD. The design capacity of IWTP No. 1 is 1.0 MGD.

11.3.3 Industrial Wastewater Treatment Plant No. 2

IWTP No. 2 treats wastewater from the base plating shops in Building 142. The wastewater influent from the plating shops is typical plating waste in that it is acidic and contains high levels of chrome and other trace metals. This wastewater is also collected in wet wells and retention

basins and is gravity fed or pumped to the various treatment processes. Treatment includes chromium reduction (by addition of ferrous sulfate, sulfuric acid, and sodium bisulfite), pH neutralization (by addition of 25 percent sodium hydroxide), cyanide destruction (by chlorination using calcium hypochlorite), and metals removal. A recent upgrade to IWTP No. 2 added sludge treatment and dewatering equipment at Building 352. Sludge consists largely of metal hydroxides and is sent off-site for recycling. Treated wastewater is discharged from NPDES outfall No. 008. The average flow into IWTP No. 2 is 0.1 MGD with a peak flow of 0.24 MGD. The design capacity of IWTP No. 2 is 0.46 MGD.

11.3.4 Planned Improvements

The most significant planned improvements for IWTP include upgrading and repairing the plant electrical systems and installing a sludge thickener There is also a projects in the planning stages upgrade to the industrial chemical feed system and implementing a SCADA system to control and monitor the plant . Additionally Robins AFB would like to utilize some of the existing tanks to equalize from the IWTP to the STP flow.

11.3.5 Assessment

Currently, Robins AFB is able to treat industrial wastewater within permit discharge limits. IWTP No. 2 is operating at capacity on a work schedule of 24 hours per day and five days per week. Additional operators would allow the plant to operate seven days per week providing additional capacity. For this particular waste stream, the concentration of the influent into IWTP No. 2, not the total volume, is the problem. Radical fluctuations in wastewater constituent concentrations as plating tanks are dumped require more intensive operator attention to this process. A potential solution would be the addition of an equalization tank to minimize the fluctuations. The planned improvements will also assist with automating the treatment process, which should reduce the burden on the operators.

Continued ability of the IWTPs to operate within permit discharge limits should not be an issue in the future. However, there is less excess capacity than is suggested by the numbers stated in Section 10.1, Existing Conditions, due to the age of the treatment plants. While the planned improvements will provide significant process improvements, some of the remaining pumps and equipment are 10 years old and will require either increasing amounts of maintenance or replacement in later years.

11.4 Electrical System

Not relevant to this EA.

11.5 Central Heating and Cooling Systems

Not relevant to this EA.

11.6 Natural Gas System

Not relevant to this EA.

11.7 Liquid Fuels Systems

Not relevant to this EA.

11.8 Air-Propane Mixing System

Not relevant to this EA.

11.9 Utility Systems Summary

Not relevant to this EA.

11.10 Transportation Systems

Not relevant to this EA.

12.0 WASTE MANAGEMENT

12.1 Solid Waste

12.1.1 Regulations

In 1965, the Solid Waste Disposal Act (SWDA) was passed to improve solid waste disposal methods and eliminate open dumps. In 1976, a portion of RCRA (Subtitle D) directed the EPA to develop national performance standards to ensure that no reasonable probability of adverse effects on health or the environment would result from solid waste disposal facilities or practices. The federal regulations establish the minimum criteria for the operation of solid waste disposal facilities. The EPA requirements are contained in 40 CFR 240 through 244, 257, and 258. Most states have implemented their own solid waste management programs through their own regulations. The Georgia solid waste management regulations are applicable to Robins AFB.

The state and federal solid waste regulations address all aspects of solid waste management, from storage of solid waste in containers prior to collection, to collection and transportation, to design and operation of disposal facilities. Georgia includes requirements for management of medical and infectious wastes in the solid waste regulations.

Prior to placement in collection vehicles, all solid wastes must be stored in containers that are designed and maintained according to the regulatory requirements. The collection vehicles also must be designed, operated, and maintained according to regulatory requirements. Solid waste transporters are required to obtain a permit; however, transporters that comply with the regulatory requirements for their collection vehicles automatically receive a "permit by rule."

All solid waste must be disposed of in a permitted solid waste landfill or in another permitted disposal facility such as an incinerator. State regulations establish the minimum requirements for locating, constructing, and operating solid waste disposal facilities. The location requirements include provisions such as requiring a 100-foot buffer zone between the landfill and the property line and prohibiting landfills within 10,000 feet of airport runways used by turbojet aircraft. The construction requirements specify items such as liners, leachate collection systems, and groundwater monitoring systems. Operating requirements include provisions such as the minimum amount of daily cover and prohibitions on certain waste types, such as liquid wastes, radioactive wastes, and hazardous wastes.

Other regulations related to solid waste management address activities such as inert waste landfills, composting, and scrap tire management. Inert wastes are wastes that are earth and earth-like products such as concrete, cured asphalt, rock, brick, yard trimmings, etc. These landfills are covered by a "permit by rule" as long as the regulatory operating requirements (amounts of cover, access, control, etc.) are met. Composting operations exclusively for yard trimmings are not regulated as solid waste management facilities. Composting of other solid wastes must comply with requirements addressing storage times, equipment, record keeping, etc. Scrap tire generators are required to have a generator identification number and must ensure that the scrap tires are transported to an appropriate facility for retreading, recycling, or disposal.

Medical and infectious wastes also are regulated by state solid waste regulations. The regulations specify the storage requirements for the waste prior to collection, as well as transportation, treatment, and disposal requirements.

12.1.2 Solid Waste Disposal and Recycling

Solid wastes are generated from all areas of Robins AFB, including base housing, municipal operations, office complexes, industrial facilities, and construction/demolition areas. The WR-ALC *Municipal Solid Waste Management Plan* contains detailed information concerning the materials included in the solid waste stream at Robins AFB. Currently, the only active solid waste disposal area on base property is the inert waste landfill, known as Landfill 2, located on the northwest corner of the base. All other solid wastes are collected by contractors for transportation to off-base recycling or disposal facilities. Solid wastes that cannot be recycled are collected and transported to the Houston County landfill for disposal. Solid wastes destined for recycling are collected at various locations on the base in waste-specific containers or are turned in to the DRMO.

Other than the inert waste landfill, all current recycling and disposal facilities are located off the base. Since the base began operation in 1941, eight areas on the base were used for landfills or solid waste disposal areas.

Solid waste management at Robins AFB is not considered a limitation to current or future operations at the base. The base has implemented an aggressive recycling program in partnership with Houston County, the city of Warner Robins, Green Cycle, and the National Institute for the Severely Handicapped. The capacities of these facilities are not a limitation to the operation of the recycling program. Additionally, Houston County has committed to provide solid waste disposal services to Robins AFB. Houston County has committed to providing solid waste disposal services to Robins AFB and has a permitted facility with 40 years of useful life. Approximately 50 years of additional capacity could be acquired through expansion of the landfill if needed.

The solid waste management program at Robins AFB has a history of compliance with Air Force, state, and federal requirements, and the program has received awards for recent activities related to recycling and solid waste reduction.

An *Integrated Solid Waste Management Plan* (ISWMP) has been developed to establish an integrated approach to dealing with the solid waste management issues at Robins AFB. The approach includes source reduction, recycling, and disposal. The Environmental Management Division at Robins AFB is the overall coordinator of the SWMP.

One of the goals of the SWMP is to reduce the amount of solid waste sent to disposal facilities through source reduction and recycling. Source reduction will reduce the dependence on off-base disposal and recycling facilities. The viability of recycling is dependent on off-base facilities and a market for recyclable materials. However, state and federal regulations are requiring

recycling of many materials, thereby ensuring the existence of recycling facilities and markets. Implementation of the SWMP at Robins AFB will ensure compliance with state, federal, and Air Force regulations and requirements.

12.2 Hazardous Materials and Waste

12.2.1 Regulations

RCRA

The Resource Conservation and Recovery Act (RCRA) originally was promulgated in 1976 to regulate cradle-to-grave management of hazardous wastes. A hazardous waste, as defined under RCRA, is any waste by-product of society that can pose a substantial or potential hazard to human health or the environment when improperly managed; possesses at least one of four characteristics (toxic, corrosive, ignitable, explosively or chemically reactive), or is listed in Code of Federal Regulations, Part 40, Section 261.3 or applicable state or local waste management regulations. Facilities that have managed (after July 26, 1982), currently manage, or will manage hazardous waste (as specifically defined in the RCRA regulations) in a regulated unit (container, tank, surface impoundment, waste pile, land treatment unit, landfill, incinerator, or miscellaneous unit) are subject to the regulatory requirements of RCRA.

In 1984, RCRA was amended by the Hazardous and Solid Waste Amendments (HSWA). Prior to HSWA, only releases to groundwater of hazardous waste from RCRA-regulated units fell under the corrective action authority of RCRA. HSWA expanded the EPA's authority under RCRA to address corrective actions for both on- and off-site releases of hazardous waste or hazardous constituents to all environmental media from sources throughout the facility. These sources are called solid waste management units (SWMUs). By definition, a SWMU is:

> Any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released (Proposed Rule for Corrective Actions at SWMUs, 55 FR 30801, July 27, 1990). The terms "solid waste" and "hazardous waste" (a subset of solid waste) are explicitly defined for purposes of the above definition in 40 CFR 261.

CERCLA

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) was enacted in 1980 to regulate releases of hazardous substances to the environment at uncontrolled hazardous waste sites. Conceptually, CERCLA is intended for the management of inactive or

abandoned waste sites and, as such, complements RCRA, which is generally applied to operating facilities.

The CERCLA response process is defined within the National Contingency Plan (NCP). The application of CERCLA and the NCP to federal facilities is addressed in Section 120 of CERCLA. CERCLA requirements at federal facilities are specific and unique. Section 120 requires the creation of a Federal Agency Hazardous Waste Compliance Docket (Docket) for listing of all federal facilities where there is a potential for release of hazardous substances. Within Section 120, EPA is required by the Superfund Amendments and Reauthorization Act (SARA) of 1986 to ensure that Preliminary Assessments (PAs) are conducted at all federal facilities listed on the Docket within 18 months of their inclusion on the Docket (CERCLA Section 120(d)). Each site is then scored by EPA using the Hazard Ranking System (HRS), which is based on information gathered during the PA/Site Investigation (SI) phase. If a site scores at or above an established threshold level (28.5), the site is placed on the National Priorities List (NPL). Although federal facilities are not eligible for federal funding through the Superfund program, federal facilities that are also subject to the corrective action authorities of RCRA Subtitle C may be listed on the NPL (54 FR 10520, March 13, 1989).

In accordance with CERCLA Section 120(d), not later than six months after the inclusion of a federal facility on the NPL, the facility, in consultation with EPA and the state regulatory agency, shall commence a Remedial Investigation (RI) and Feasibility Study (FS). Within 180 days of EPA's review of the RI/FS results, the federal facility will typically enter into an interagency agreement (Federal Facilities Agreement, or FFA) with EPA for the completion of all necessary remedial actions at the facility. Remedial action should begin within 15 months following completion of the RI/FS.

Hazardous substances are defined under CERCLA as the following:

- any substance designated under the Clean Water Act (CWA) Section 311;
- any element, compound, mixture, solution, or substance under CERCLA Section 102;
- hazardous wastes as defined in the Waste Disposal Act Section 3001;
- any toxic pollutant listed in the CWA Section 307(a);
- any hazardous air pollutant listed in the Clean Air Act (CAA) Section 112;
- any imminently hazardous chemical substance or mixture covered under the Toxic Substances Control Act (TSCA) Section 7; and,
- any substance that may present substantial danger to public health or the welfare of the environment.

Petroleum is excluded from CERCLA unless it contains or is a mixture with a hazardous substance.

Installation Restoration Program

The Defense Environmental Restoration Program (DERP) of the Department of Defense (DoD) is carried out subject to and in a manner consistent with CERCLA Section 120, and in consultation with EPA. In accordance with CERCLA Section 120(a)(4), state laws regarding removal, remedial action, and enforcement apply to removal and remedial action at federal facilities when such facilities are not included on the NPL. State laws that apply to response actions are viewed as ARARs in the CERCLA process.

At all federal facility CERCLA sites, the DoD is the lead agency. The DoD provides a Remedial Project Manager (RPM) whose responsibility is to plan and implement the response action in accordance with the NCP and ARARs (including state laws) and in consultation with the EPA and the state. At non-NPL sites, the DoD may select the final remedy in consultation with the EPA and state. At NPL sites, the federal facility must enter into an interagency agreement, a Federal Facilities Agreement (FFA), with the EPA. The agreement stipulates schedules and terms for remedy selection. The agreement also addresses state, local, and public involvement in the process.

The DERP and the Installation Restoration Program (IRP) provide specific guidance for implementation of the NCP at DoD facilities. SARA addresses the hazardous waste cleanup requirements for federal facilities and establishes the DERP. The IRP of the United States Air Force (USAF) is a component of the DERP.

Robins AFB has implemented a *Hazardous Waste Reduction Plan* (HWRP) (WR–ALC, 2006) that focuses on reducing or eliminating the use of hazardous materials.

12.2.2 Management of Hazardous Materials and Wastes

Reduction of hazardous materials used and hazardous wastes generated is an essential aspect of a successful pollution prevention program. Robins AFB uses many hazardous materials which become components of hazardous waste streams, and the base has programs to reduce the use of hazardous materials and minimize the generation of hazardous wastes. Three categories of hazardous waste generated at Robins AFB include: process wastes, sludges from wastewater treatment, and excess/expired-shelf-life hazardous materials. Robins AFB is implementing a Hazardous Material Management Plan with the intent of improving the quality of hazardous materials management in each of a material's life cycle phases, from the decision to procure the material through receipt, storage, issue, use and eventual disposition of the material (RAFB, 1996).

Minimization of hazardous waste includes reduction at the source and the use of processes, practices, or products to reduce the generation of hazardous waste, as well as the reuse or recycling of waste so as to reduce its volume or toxicity. Based on the 2006 Robins AFB Hazardous Waste Reduction Plan, WR-ALC is aggressively seeking process improvements that will allow the base to achieve its missions while minimizing the discharge of pollutants to all environmental media. Painting operations, electroplating, avionics, and degreasing operations appear to be achieving their hazardous waste reduction goals. The major areas not meeting goals appear to be abrasive blasting and industrial wastewater treatment sludges. An ongoing, current project to segregate sanitary from industrial sewers and perform upgrades to the IWTPs is projected to reduce hazardous waste sludges from this source. Data describing the hazardous wastes generated at Robins AFB in calendar year 2005 are shown in **Table 12-1**.

The range of activities at Robins AFB require the use of a variety of hazardous materials, including petroleum products (fuels), munitions, pesticides, acids, solvents, paints, and detergents. Programs and activities associated with the management of these materials include:

- The Hazardous Materials/Waste Section has responsibility for the safe storage and handling of all hazardous materials/wastes used or generated on Robins AFB. Wastes are managed according to the *Base Hazardous Waste Management Plan* and RCRA.

Table 12-1. Robins AFB Hazardous Waste Generation – Summary of 2005 Biennial Report.

Hazardous Waste	Amount (tons)
Process waste	838
Sludge from the wastewater treatment plant	350
Excess/expired materials	48
Total	1,235

- The storage of munitions and fuels on base is described in Sections 9.2 and 11.7, respectively.

12.3 Toxic Materials and Waste

Not relevant to this EA.

12.4 Contaminated Sites

Not relevant to this EA.

12.5 References

Robins AFB (RAFB). July 1996. *Pollution Prevention Management Action Plan for Warner Robins Air Logistics Center, Robins AFB, Georgia*. Final Plan. Prepared for Environmental Management Directorate, Robins Air Force Base, Georgia.

WR-ALC. 2006. *Hazardous Waste Reduction Plan, Robins Air Force Base, Georgia.*

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APPENDIX B

AGENCY/PUBLIC CORRESPONDENCE

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PUBLIC NOTICE
FOR THE
DRAFT FINAL ENVIRONMENTAL ASSESSMENT
FOR THE CONSTUCTION AND OPERATION OF AIRCRAFT MAINTENANCE HANGAR

Robins Air Force Base announces the availability for public review and comment, the Draft Final Environmental Assessment (EA) and proposed unsigned Finding of No Significant Impact (FONSI) for the Construction and Operation of Aircraft Maintenance Hangar. The proposed Aircraft Maintenance Hangar will provide a controlled environment facility that consolidates efforts for the maintenance and modernization/upgrade of C-130 and C-17 aircraft. No significant impacts to the environment are anticipated. A copy of the Draft Final EA and proposed unsigned FONSI are available for public viewing and comment for the next 30 days in the Nola Brantley Memorial Library (also known as the Houston County Library), 721 Watson Blvd., Warner Robins, GA, 478-923-0128. For questions or comments, please contact the 78 Air Base Wing Public Affairs Office at FAX 926-9597 or address below: 78 ABW/PA, 215 Page Rd, Suite 106, Robins AFB GA 31098-1662

Houston Home Journal
19 JAN 05

PUBLIC NOTICE
FOR THE
DRAFT FINAL ENVIRONMENTAL ASSESSMENT
FOR THE CONSTUCTION AND OPERATION
OF AIRCRAFT MAINTENANCE HANGAR

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Total 44" - 1/20.

DEPARTMENT OF THE AIR FORCE
78th Air Base Wing (AFMC)
Robins Air Force Base Georgia

Barbara Jackson
Georgia State Clearinghouse
270 Washington Street, SW, 8th Floor
Atlanta, GA 30334
(404) 656-3855

MAR 11 2008

78 CEG/CEVP
755 Macon Street, Building 1555
Robins AFB, GA 31098-2201

SUBJECT: Draft Final Environmental Assessment (EA), Construction of Aircraft Maintenance Hangar at Robins Air Force Base

1. We request that you review the attached document by 12 Apr 08. Please make your comments specific and note them on a separate sheet of paper, rather than on the actual document. Negative replies should be in writing to ensure continuity of documentation. If we do not receive your comments by 12 Apr 08, we will assume that the document is accepted as written.

2. Our point of contact is Mr. Mark Hickman, (478) 327-8306.

FRED HURSEY
Chief, Environmental Programming Branch
Environmental Management Division

Attachments:
1. Draft Final EA (5 copies)

GEORGIA STATE CLEARINGHOUSE MEMORANDUM
EXECUTIVE ORDER 12372 REVIEW PROCESS

TO: Mark Hickman
78 CEG/CEVP
Dept. of the Air Force

FROM: Barbara Jackson

DATE: 3/14/2008

SUBJECT: Executive Order 12372 Review

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

PROJECT: Draft Final EA: Construction and Operation of Aircraft Maintenance Hangar (Robins AFB, GA)

CFDA #:

STATE ID: GA080314007

FEDERAL ID:

Correspondence related to the above project was received by the Georgia State Clearinghouse on 3/14/2008. The review has been initiated and every effort is being made to ensure prompt action. The proposal will be reviewed for its consistency with goals, policies, plans, objectives, programs, environmental impact, criteria for Developments of Regional Impact (DRI) or inconsistencies with federal executive orders, acts and/or rules and regulations, and if applicable, with budgetary restraints.

The initial review process should be completed by 4/10/2008 (*approximately*). If the Clearinghouse has not contacted you by that date, please call (404) 656-3855, and we will check into the delay. We appreciate your cooperation on this matter.

In future correspondence regarding this project, please include the State Application Identifier number shown above. If you have any questions regarding this project, please contact us at the above number.

Form SC-1
Nov. 2006

OFFICE OF PLANNING AND BUDGET

Sonny Perdue
Governor

Trey Childress
Director

GEORGIA STATE CLEARINGHOUSE MEMORANDUM
EXECUTIVE ORDER 12372 REVIEW PROCESS

TO: Mark Hickman
78 CEG/CEVP
Dept. of the Air Force

FROM: Barbara Jackson BJ
Georgia State Clearinghouse

DATE: 4/9/2008

SUBJECT: Executive Order 12372 Review

PROJECT: Draft Final EA: Construction and Operation of Aircraft Maintenance Hangar (Robins AFB, GA)

STATE ID: GA080314007

The State level review of the above referenced document has been completed. As a result of the environmental review process, the activity this document was prepared for has been found to be consistent with state social, economic, physical goals, policies, plans, and programs with which the State is concerned.

Additional Comments: The applicant/sponsor is advised to note additional comments from DNR's Historic Preservation Division.

/bj
Enc.: DNR/EPD, Apr. 7, 2008
HPD, Apr. 3, 2008

Form SC-4-EIS-4
January 1995

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 - Robins AFB, GA

PROJECT: Draft Final EA: Construction and Operation of Aircraft Maintenance Hangar (Robins AFB, GA)

STATE ID: GA080314007

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]

RECEIVED
APR 07 2008
GEORGIA
STATE CLEARINGHOUSE

Georgia Department of Natural Resources

Noel Holcomb, Commissioner

Historic Preservation Division

W. Ray Luce, Division Director and Deputy State Historic Preservation Officer
34 Peachtree Street NW, Suite 1600, Atlanta, Georgia 30303-2316
Telephone (404) 656-2840 Fax (404) 657-1040 http://www.gashpo.org

MEMORANDUM

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

FROM: Elizabeth Shirk
Environmental Review Coordinator
Historic Preservation Division

RE: Finding of "No Historic Properties Affected"

PROJECT: EA: Construct Aircraft Maintenance Hangar, Robins AFB
GA-080314-007

COUNTY: Houston County, Georgia

DATE: March 28, 2008

The Historic Preservation Division has reviewed the information received concerning the above-mentioned project. Our comments are offered to assist United States Air Force in complying with the provisions of Sections 106 and 110 of the National Historic Preservation Act of 1966, as amended.

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 (NRHP) 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 Michelle Volkema, Environmental Review Specialist, at (404) 651-6546. Please refer to the project number assigned above in any future correspondence regarding this project.

ES:jph

cc: Kristina Harpst, Middle Georgia RDC
Rebecca McCoy, Robins AFB