

# **C-130J RECAPITALIZATION ENVIRONMENTAL ASSESSMENT**

## **DRAFT ENVIRONMENTAL ASSESSMENT**



PREPARED FOR:

**Air Force Reserve Command  
and  
U.S. Army Corps of Engineers Mobile District**

February 2024



**C-130J Recapitalization  
Draft Environmental Assessment**

**COVER SHEET**

**Responsible Agency:** Headquarters Air Force Reserve Command (HQ AFRC)

**Proposed Action:** Recapitalization of one squadron of eight C-130H aircraft to the C-130J model

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**Report Designation:** Environmental Assessment (EA)

**Abstract:** Congress has approved recapitalization of one squadron of eight C-130H aircraft, to be replaced with eight state-of-the-art C-130J aircraft at one of four candidate Air Force Reserve Command installations (Proposed Action), including: Dobbins Air Reserve Base, Georgia; Minneapolis-St. Paul Air Reserve Station (ARS), Minnesota; Peterson Space Force Base, Colorado; or Youngstown ARS, Ohio. The Proposed Action also includes making near-term modifications to infrastructure (e.g., hangars, ramps) required to achieve minimal Initial Operations Capability to accept the C-130J aircraft and mission set. The Proposed Action is needed to respond to evolving mission needs and operational demands, particularly in response to weather-related events. The aging fleet of C-130H aircraft currently in use is nearing the end of its useful life, including decreasing operational reliability, and increasing routine maintenance costs. The C-130J incorporates state-of-the-art technology, which reduces manpower requirements, lowers operating and support costs, and provides long-term life-cycle cost savings over the C-130H model. The C-130J mission would result in a long-term support personnel (manpower) decrement and requires new flight qualification for pilots and loadmasters.

The following resources were identified for study in this EA: Air Quality, Biological Resources, Climate, Cultural Resources, Hazardous Materials and Hazardous Waste, Noise, Socioeconomics, and Safety and Occupational Health.

**Privacy Act Advisory:** As required by law, substantive comments will be addressed in the Final Environmental Assessment and made available to the public. Any personal information provided will be kept confidential. Private addresses will be compiled to develop a mailing list for those requesting copies of the Final Environmental Assessment. Names, personal home addresses and phone numbers will not be published in the Final Environmental Assessment.



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**FINDING OF NO SIGNIFICANT IMPACT  
ENVIRONMENTAL ASSESSMENT FOR C-130 RECAPITALIZATION**

Pursuant to the Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of the National Environmental Policy Act of 1969 (NEPA) (Title 40 of the Code of Federal Regulations [CFR] §§ 1500-1508), and the United States (U.S.) Air Force Environmental Impact Analysis Process (EIAP) regulation (32 CFR Part 989), the U.S. Air Force Reserve Command (AFRC) has prepared this Environmental Assessment (EA) to evaluate the potential impacts on the natural and human environment resulting from the congressionally approved recapitalization of one squadron of eight C-130H aircraft to the C-130J model (Proposed Action) at one of the following AFRC installations: Youngstown Air Reserve Station (ARS), Ohio; Dobbins Air Reserve Base (ARB), Georgia; Minneapolis-St. Paul ARS, Minnesota; or Peterson Space Force Base (SFB), Colorado. The Proposed Action also includes making modifications (e.g., hangars, ramps) required to accommodate the C-130J model at the selected installation. The Proposed Action includes only the near-term base facility modifications required to achieve minimal Initial Operations Capability (IOC) to accept the C-130J aircraft and mission set. The disposition of the existing C-130H fleet at the selected recapitalization AFRC base would be determined at a later date and is not part of the Proposed Action. Additional base facility modifications may be implemented in a future year to achieve Full Operations Capability (FOC). Any additional future modifications would be subject to a separate NEPA process.

Each of the Proposed Action Alternatives was evaluated in the EA against a set of selection standards to determine which alternatives would be carried forward for detailed environmental impact analysis. Reasonable alternatives are those that meet the underlying purpose of and need for the Proposed Action, are feasible from a technical and economic standpoint, and meet reasonable selection standards (screening criteria) that are suitable to a particular action. Based on this screening, all four alternatives were determined to be reasonable and were carried forward for detailed environmental impact analysis. Additionally, a No-Action Alternative was analyzed for each of the Proposed Actions.

The September 14, 2020, version of CEQ NEPA rules is being used (85 FR 43304-43376), as modified by the CEQ NEPA Implementing Regulations Revisions Final Rule that became effective 20 May 2022, and the Air Force Environmental Impact Analysis Process Regulations (32 CFR Part 989). The EA is incorporated by reference and attached to this Finding of No Significant Impact (FONSI) per 32 CFR 989.15(a) and is briefly described below. Refer to the attached EA for further details.

The Proposed Action and Alternatives would have no effect on airspace; aesthetics and visual resources; coastal zone resources; Environmental Justice; floodplains; geology, soils, and farmlands; land use; surface water/groundwater resources; transportation, infrastructure, and utilities; or wetlands. Negligible to minor impacts would occur on air quality, biological resources, climate, cultural resources, hazardous materials and hazardous waste, ambient noise levels, safety and occupation health, and socioeconomics. Potential impacts to these environmental resources are summarized in the EA along with any requisite mitigation measures.

The following mitigation/minimization measures are required in the areas of air quality, cultural resources, hazardous materials and solid waste, and safety and occupational health:



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*Air Quality*

- Minimize dust generated from disturbance on unpaved areas through measures such as applying water or using other stabilization measures on areas of bare soil or soil piles and covering dump trucks that transport materials that could become airborne.
- Require contractors to maintain construction equipment in accordance with manufacturers' specifications to reduce exhaust emissions.

*Cultural Resources*

- If prehistoric or historic artifacts that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, actions will be taken to minimize damage to these resources and comply with legal requirements. Potentially damaging activities will immediately cease and efforts to ensure the protection of resources will be implemented. Appropriate installation cultural resources management personnel will be contacted immediately. Work within the area of discovery will not resume until appropriate measures are implemented according to each base's cultural resource management programs.
- In the event that unmarked human remains are encountered during permitted activities, stop all work immediately and notify the proper authorities within 24 hours.

*Hazardous Materials and Hazardous Waste*

- Report any spills or discharges discovered during the course of facility modification activities.
- Manage hazardous materials and disposal of hazardous substances in compliance with established procedures and policies such as Hazardous Materials Management Plans (HMMP) and Hazardous Waste Management Plans (HWMP).
- Coordinate development on ERP sites with the Air Force Civil Engineer Center (AFCEC) and address any applicable land use controls by evaluating project implementation to ensure continued protectiveness for human health and the environment.
- Ensure construction contractor compliance with 29 CFR 1910.120 to address the health and safety of its employees during construction and demolition activities, with respect to worker exposure to hazardous substances and proper management of soil and groundwater encountered during construction, including testing, handling, and disposal procedures.
- Comply with state requirements for the abandonment, if needed, of any monitoring wells, injection wells, extraction wells, sparge wells, or similar treatment facilities that are found within the area of the construction activities.

*Safety and Occupational Health*

- Follow and implement Air Force Occupational Safety and Health (AFOSH) and Occupational Safety and Health Administration (OSHA) safety standards to establish and maintain safety procedures for construction contractor employees.



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- Notify contractors of the presence and nature of known environmental contaminants, access restrictions, institutional controls, and land use controls specific to each potentially impacted site prior to beginning work. If excavation or dewatering is required at locations with known contaminants, evaluate and address land use controls by evaluating the project to ensure continued protectiveness for human health and the environment, and consult with AFCEC to ensure proper coordination.
- Perform site specific asbestos and lead paint surveys where appropriate, prior to beginning work. If detected, implement management controls or abatement measures according to installation management plans and state requirements specific to each Proposed Action alternative installation.
- Install fume vent systems as needed to ensure proper ventilation for employees working in new composite materials shops.
- Obtain all necessary safety waivers as needed.

As the proponent for the C-130J Recapitalization action, AFRC will coordinate with the Airlift Wing that will implement the Proposed Action at the selected alternative installation, which includes the 910th Airlift Wing (Alternative 1), 94th Airlift Wing (Alternative 2), 934th Airlift Wing (Alternative 3), and 302nd Airlift Wing (Alternative 4) to ensure that the mitigations listed above and in the EA are in place prior to taking any specific action. The Airlift Wing at the selected alternative installation will be responsible for any mitigation monitoring requirements identified during project design and permitting. The Airlift Wing at the selected alternative installation will oversee and verify mitigations are fully funded by the proponent and are in place and being carried out, as identified in this Finding of No Significant Impact (FONSI). It is expected the mitigation verification will generally consist of implementing Best Management Practices identified in the EA and securing environmental resource permits and approvals from applicable state and local permitting agencies.

Public notice of the Draft EA was placed in local newspapers around each installation. The documents were made available for review on ARFC websites and in hard copy at local libraries for the duration of a 30-day comment period.. AFRC has considered all comments received on the Draft EA in preparing this FONSI.

**Finding of No Significant Impact**

After review of the EA prepared in accordance with the requirements of National Environmental Policy Act; Council on Environmental Quality regulations; and 32 CFR Part 989, EIAP, which is hereby incorporated by reference, I have determined that the proposed action and alternatives would not have a significant impact on the natural or human environment either by itself or cumulatively. The requirements of NEPA and the CEQ's regulations have been fulfilled. An Environmental Impact Statement is not required and will not be prepared.

MR. ROBERT STAIB, GS-15,  
Department of the Air Force Chief, Civil Engineer Division



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**LIST OF ACRONYMS AND ABBREVIATIONS**

°F	Degrees Fahrenheit
302 AW	302nd Airlift Wing
910 AW	910th Airlift Wing
934 AW	934th Airlift Wing
94 AW	94th Airlift Wing
ACAM	Air Conformity Applicability Model
ACM	Asbestos-Containing Material
AFB	Air Force Base
AFCEC	Air Force Civil Engineer Center
AFCEC/CZ	Air Force Civil Engineer Center Environmental Directorate
AFFF	Aqueous Film-Forming Foam
AFI	Air Force Instruction
AFMAN	Air Force Manual
AFOSH	Air Force Occupational Safety and Health
AFRC	Air Force Reserve Command
APE	Area of Potential Effect
AQCR	Air Quality Control Region
ARB	Air Reserve Base
ARFF	Aircraft Rescue and Firefighting
ARPA	Archaeological Resources Protection Act
ARS	Air Reserve Station
BASH	Bird/Wildlife Aircraft Strike Hazard
BCC	Bird of Conservation Concern
BMP	Best Management Practices
CAA	Clean Air Act
CDP	Census Designated Place
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CH <sub>4</sub>	Methane
CNHP	Colorado Natural Heritage Program
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2</sub> e	Carbon Dioxide Equivalent
CY	Calendar Year
DAF	Department of the Air Force
DAFI	Department of the Air Force Instruction
dB	Decibel
dBA	A-weighted Decibel
DNL	Day-Night Average Sound Level
DoD	Department of Defense
DoDI	Department of Defense Instruction
EA	Environmental Assessment
EIAP	Environmental Impact Analysis Process
EIS	Environmental Impact Statement
EO	Executive Order
ERP	Environmental Restoration Program
ESA	Endangered Species Act



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FOC	Full Operations Capability
FONPA	Finding of No Practicable Alternative
FONSI	Finding of No Significant Impact
GHG	Greenhouse Gas
GIS	Geographic Information System
GWP	Global Warming Potential
HFC	Hydrofluorocarbon
HMMP	Hazardous Materials Management Plan
HWMP	Hazardous Waste Management Plan
ICRMP	Integrated Cultural Resources Management Plan
INRMP	Integrated Natural Resources Management Plan
IOC	Initial Operations Capability
IPaC	Information for Planning and Consultation
IPMP	Integrated Pest Management Plan
IRP	Installation Restoration Program
kg	Kilogram
LBP	Lead-Based Paint
L <sub>max</sub>	Maximum Sound Level
LQG	Large Quantity Generator
LTO	Landing/Takeoff Cycle
MAFFS	Modular Airborne Fire Fighting Systems
MASS	Modular Aerial Spray Systems
mg/kg	Milligram Per Kilogram
MMRP	Military Munitions Response Program
MN DNR	Minnesota Department of Natural Resources
MOU	Memorandum of Understanding
MSA	Metropolitan Statistical Area
N <sub>2</sub> O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO <sub>2</sub>	Nitrogen Dioxide
NOA	Notice of Availability
NO <sub>x</sub>	Oxides of Nitrogen
NRHP	National Register of Historic Places
O&M	Operations and Maintenance
O <sub>3</sub>	Ozone
OSHA	Occupational Safety and Health Administration
Pb	Lead
PFBS	Perfluorobutane Sulfonate
PFC	Perfluorocarbon
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctane Sulfonate
PM <sub>10</sub>	Particulate Matter Less than or Equal to 10 Micrometers
PM <sub>2.5</sub>	Particulate Matter Less than or Equal to 2.5 Micrometers
POL	Petroleum, Oil, and Lubricants
ppb	Parts Per Billion
ppm	Parts Per Million
PRL	Potential Release Location
RCRA	Resource Conservation and Recovery Act



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ROCA	Record of Conformity Analysis
ROI	Region of Influence
SEL	Sound Exposure Level
SFB	Space Force Base
SF <sub>6</sub>	Sulfur Hexafluoride
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO <sub>2</sub>	Sulfur Dioxide
SO <sub>x</sub>	Sulfur Oxides
SPCC	Spill Prevention, Control, and Countermeasures
SQG	Small Quantity Generator
TSCA	Toxic Substances Control Act
U.S.	United States
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USCB	U.S. Census Bureau
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VOC	Volatile Organic Compounds
µg	Microgram
µg/L	Micrograms Per Liter
µg/m <sup>3</sup>	Micrograms Per Cubic Meter



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## **CHAPTER 1 PURPOSE AND NEED**

### **1.1 INTRODUCTION AND BACKGROUND**

The United States (U.S.) Air Force Reserve Command (AFRC) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts resulting from the congressionally approved recapitalization of one squadron of eight C-130H aircraft to the C-130J model (Proposed Action) at one of the following AFRC installations: Dobbins Air Reserve Base (ARB), Georgia; Minneapolis-St. Paul Air Reserve Station (ARS), Minnesota; Peterson Space Force Base (SFB), Colorado; or Youngstown ARS, Ohio. The Proposed Action also includes making modifications to infrastructure (e.g., hangars, ramps) required to accommodate the C-130J model at the selected installation. The Proposed Action includes only the near-term base facility modifications required to achieve minimal Initial Operations Capability (IOC) to accept the C-130J aircraft and mission set.

This EA was prepared to evaluate the potential environmental impacts of the Proposed Action in compliance with the National Environmental Policy Act of 1969 (NEPA) (42 United States Code [U.S.C.] 4331 et seq.), the regulations of the President's Council on Environmental Quality (CEQ) that implement NEPA procedures (40 Code of Federal Regulations [CFR] 1500-1508), and the U.S. Air Force Environmental Impact Analysis Process (EIAP) Regulations at 32 CFR Part 989.

The information presented in this EA will serve as the basis for deciding whether the Proposed Action would result in a significant impact to the human environment, requiring the preparation of an Environmental Impact Statement (EIS), or whether no significant impacts would occur, in which case a Finding of No Significant Impact (FONSI) would be appropriate. The Proposed Action would not involve "construction" in a wetland as defined in Executive Order (EO) 11990, *Protection of Wetlands*, or "action" in a floodplain under EO 11988, *Floodplain Management*, therefore, a Finding of No Practicable Alternative (FONPA) is not required to be prepared.

### **1.2 PURPOSE AND NEED**

The purpose of the Proposed Action is to replace one squadron of eight existing C-130H aircraft with the congressionally approved eight state-of-the-art C-130J aircraft. The proposed recapitalization of the C-130H to the C-130J model is needed to respond to evolving mission needs and operational demands, particularly in response to weather-related events. The C-130J model performance enhances situational awareness in low-level flying conditions compared to the C-130H model.

The minimum age of C-130H aircraft currently in use is 27 years and is nearing the end of its useful life, including decreasing operational reliability, and increasing routine maintenance costs. The C-130J incorporates state-of-the-art technology, which reduces manpower requirements, lowers operating and support costs, and provides long-term life-cycle cost savings over the C-130H model. Compared to older C-130s, the C-130J model climbs faster and higher, flies farther at a higher cruise speed, and takes off and lands over a shorter distance. The C-130J has a smaller crew and requires fewer support personnel (manpower) compared to the C-130H. The C-130H conversion to C-130J requires a new flight qualification



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for pilots and loadmasters. **Table 1.2-1** compares the physical and operational characteristics of the C-130H and the C-130J models.

**TABLE 1.2-1 C-130 MODEL COMPARISON**

Parameter	C-130H	C-130J
Length	97 feet, 9 inches	112 feet, 9 inches
Height	38 feet, 10 inches	38 feet, 10 inches
Wingspan	132 feet, 7 inches	132 feet, 7 inches
Speed	366 mph at 20,000 feet	410 mph at 22,000 feet
Ceiling	23,000 feet	26,000 feet
Maximum Takeoff Weight	155,000 pounds	164,000 pounds
Maximum Load	6 pallets/72 litters/16 CDS bundles/ 90 combat troops/64 paratroopers	8 pallets/97 litters/24 CDS bundles/ 128 combat troops/92 paratroopers
Maximum Normal Payload	36,500 pounds	36,000 pounds
Range at Maximum Normal Payload	1,208 miles	1,956 miles
Engines	Allison T56-A-15 turboprops (4)	Rolls-Royce AE2100D3 turboprops (4)
Crew	Five (two pilots, navigator, flight engineer and loadmaster)	Three (two pilots and loadmaster)

Source: Air Force, 2023a

### **1.3 INTERAGENCY AND INTERGOVERNMENTAL COORDINATION AND CONSULTATIONS**

#### **1.3.1 INTERAGENCY COORDINATION AND CONSULTATIONS**

Scoping is an early and open process for developing the breadth of issues to be addressed in the EA and for identifying significant concerns related to a proposed action. Per the requirements of 32 CFR 989.14(l), 40 CFR 1501.5, and EO 12372, *Intergovernmental Review of Federal Programs*, federal, state, and local agencies with jurisdiction that could be affected by the Proposed Action were notified during the development of this EA.

**Appendix A** contains the list of agencies consulted during this analysis and copies of correspondence.

#### **1.3.2 GOVERNMENT TO GOVERNMENT CONSULTATIONS**

Section 106 of the National Historic Preservation Act (NHPA) (36 CFR 800.3) requires federal agencies to consult with Native American tribes regarding properties of cultural and religious significance. Department of Defense Instruction (DoDI) 4710.02, *DoD Interactions with Federally Recognized Tribes*, and Department of the Air Force Instruction (DAFI) 90-2002, *Interactions with Federally Recognized Tribes*, federally-recognized tribes that are historically affiliated with the geographic region of the Proposed Action and alternatives will be invited to consult on all proposed undertakings that have a potential to affect properties of cultural, historical, or religious significance to the tribes. The tribal consultation process is distinct from NEPA consultation or the interagency coordination processes, and it requires separate notification and invitation to all relevant tribes. The timelines for tribal consultation are also distinct from those of other consultations.



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AFRC solicited early comment from the Native American tribal governments whose interests might be directly and substantially affected by the Proposed Action (**Appendix A**). Letters informing the tribes of the intent to prepare the EA and requesting input were sent by Youngstown ARS and Minneapolis-St. Paul ARS on 30 March 2023. Letters informing affiliated tribes of the intent to prepare the EA and requesting input were sent by Dobbins ARB on 20 June 2023. To date, the Shakopee Mdewakanton Sioux Community, Oneida Indian Nation, and Cherokee Nation have replied with early comments (**Appendix A**).

### **1.3.3 OTHER AGENCY CONSULTATIONS**

AFRC also requested early comments from federal, state, and local agencies with regulatory jurisdiction over the candidate AFRC bases included in this EA. These agencies were also provided an opportunity to review the Draft EA (see **Section 1.4.1** for details). Letters informing the agencies of the intent to prepare the EA and requesting input were sent by Youngstown ARS, Minneapolis-St. Paul ARS, and Dobbins ARB on 30 March 2023. To date, replies with early comments have been received by the Ohio State Historic Preservation Office (SHPO) for Youngstown ARS, Georgia Historic Preservation Division for Dobbins ARB, and USEPA for Minneapolis-St. Paul ARS (**Appendix A**). The Ohio SHPO requested additional information to further NHPA Section 106 consultation, and Youngstown ARS provided the requested information and requested concurrence with the cultural resources determination on 3 July 2023. A response from Ohio SHPO is pending.

## **1.4 PUBLIC AND AGENCY REVIEW OF THE ENVIRONMENTAL ASSESSMENT**

A Notice of Availability (NOA) of the Draft EA was published in the *Tribune Chronicle* (Ohio), *The Vindicator* (Ohio), *Atlanta Journal-Constitution* (Georgia), *Marietta Daily Journal* (Georgia), *Star-Tribune* (Minnesota), and *Colorado Springs Gazette* (Colorado) newspapers announcing the availability of the EA for review. The NOA invited the public to review and comment on the Draft EA.

Copies of the Draft EA were also made available for review at the following locations:

#### **Youngstown ARS:**

Cortland Public Library  
578 Lakeview Drive  
Cortland, Ohio 44410

Howland Public Library  
9095 E. Market Street  
Warren, Ohio 44484

#### **Dobbins ARB:**

Smyrna Public Library  
100 Village Green Circle  
Smyrna, Georgia 30080

#### **Minneapolis-St. Paul ARS:**

Environmental Conservation Library  
Hennepin County Library – Minneapolis Central  
Government Documents – 2<sup>nd</sup> Floor  
300 Nicollet Mall  
Minneapolis, Minnesota 55401-1992

#### **Peterson SFB:**

Pikes Peak Public Library  
5550 N. Union Boulevard  
Colorado Springs, Colorado 80918



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Sand Creek Public Library  
1821 S. Academy Boulevard

Colorado Springs, Colorado 80916

**1.4.1 PUBLIC AND AGENCY COMMENTS ON THE DRAFT ENVIRONMENTAL ASSESSMENT**

To be completed upon circulation of the Draft EA.

**1.4.2 SUMMARY OF CHANGES TO THE DRAFT ENVIRONMENTAL ASSESSMENT**

To be completed only if needed upon completion of Draft EA public/agency review process and preparation of Final EA.

**1.5 SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND MITIGATION MEASURES**

**Table 1.5-1** summarizes the potential environmental consequences from Chapter 4 of this EA, for each environmental resource area.

**TABLE 1.5-1 SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND MITIGATION MEASURES**

Resource Area	Impact Synopsis	Minimization/Mitigation Measures
Air Quality (Section 3.3)	Annual construction emissions for each alternative would not exceed insignificance indicators and would be temporary in nature. Each alternative would result in ongoing minor emission reductions due to the manpower decrement.	<ul style="list-style-type: none"><li>Minimize dust generated from disturbance on unpaved areas through measures such as applying water or using other stabilization measures on areas of bare soil or soil piles and covering dump trucks that transport materials that could become airborne.</li><li>Require contractors to maintain construction equipment in accordance with manufacturers' specifications to reduce exhaust emissions.</li></ul>
Biological Resources (Section 3.4)	Facility modifications at each of the Proposed Project alternative installations would occur in heavily developed areas with no native vegetation communities present within or adjacent to proposed project footprints. Limited habitat is available within Proposed Action alternative project areas, and none of the alternatives would require removal of significant vegetation features or native vegetation communities. Physical modifications to existing structures that may be used by wildlife would be limited under each alternative. No significant impacts to biological resources are anticipated.  <i>Federally Listed Species:</i> No significant impacts are anticipated to federally-listed floral or faunal	<ul style="list-style-type: none"><li>None required.</li></ul>



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Resource Area	Impact Synopsis	Minimization/Mitigation Measures
	<p>species. The Proposed Action would have “no effect” on species whose range includes an alternative installation, but that lacks suitable habitat within the alternatives’ project areas, or whose range does not include the project areas. An Endangered Species Act (ESA) determination of “may affect, not likely to adversely affect” applies to species whose range includes project areas at an alternative installation, with potentially suitable habitat within the project areas, but where no individuals have been observed during field surveys of the alternative installation.</p> <p><i>Critical Habitat:</i> No critical habitat is located within or adjacent to any of the Proposed Action alternative project areas, and no adverse impacts to critical habitat are anticipated to result from the Proposed Action.</p>	
Climate (Section 3.5)	<p>Annual construction greenhouse gas (GHG) emissions for each alternative would not exceed insignificance indicators and would be temporary in nature. Each alternative would result in ongoing minor GHG emission reductions due to the manpower decrement.</p>	<ul style="list-style-type: none"> <li>▪ None required.</li> </ul>
Cultural Resources (Section 3.6)	<p>The AFRC finds that no adverse effect would be incurred on archaeological or historic architectural resources. Comments were solicited by Youngstown ARS and Minneapolis-St. Paul ARS, from Native American tribes traditionally affiliated with each alternative installation as part of the Draft EA scoping process on 30 March 2023. Comments were solicited by Dobbins ARB from Native American tribes traditionally affiliated with the installation on 20 June 2023. The Oneida Indian Nation (Alternative 1), Cherokee Nation (Alternative 2), and Shakopee Mdewakanton Sioux Community (Alternative 3) have concurred that the Proposed Action would not affect cultural resources of tribal concern. Comments will again be solicited from affiliated tribes as part of the Draft EA public review process.</p>	<ul style="list-style-type: none"> <li>▪ If prehistoric or historic artifacts that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, actions will be taken to minimize damage to these resources and comply with legal requirements. Potentially damaging activities will immediately cease and efforts to ensure the protection of resources will be implemented. Appropriate installation cultural resources management personnel will be contacted immediately. Work within the area of discovery will not resume until appropriate measures are implemented according to each base’s cultural resource management programs.</li> <li>▪ In the event that unmarked human remains are encountered during permitted activities, stop all work immediately and notify</li> </ul>



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Resource Area	Impact Synopsis	Minimization/Mitigation Measures
<p>Hazardous Materials and Hazardous Waste (Section 3.7)</p>	<p>No increases or substantial changes in current quantities and types of hazardous materials or wastes would be expected upon completion of the Proposed Action. Hazardous materials used on site and hazardous materials generated during construction or operation of the Proposed Action would be stored, managed, or disposed of according to each alternative installation's established procedures and policies. The Proposed Action would result in no or negligible effects regarding hazardous wastes. Asbestos and lead paint surveys would be performed prior to building modification activities and no or negligible effects relative to toxic substances would occur. A variety of Environmental Restoration Program (ERP) sites are collocated with, adjacent to, or in proximity to the Proposed Action Alternative 1, Alternative 3, and Alternative 4 and planned construction activities at these alternative installations have potential to cause short-term adverse impacts to ongoing remediation activities at these sites.</p>	<p>the proper authorities within 24 hours.</p> <ul style="list-style-type: none"> <li>▪ Report any spills or discharges discovered during the course of facility modification activities.</li> <li>▪ Manage hazardous materials and disposal of hazardous substances in compliance with established procedures and policies such as Hazardous Materials Management Plans (HMMP) and Hazardous Waste Management Plans (HWMP).</li> <li>▪ Coordinate development on ERP sites with the Air Force Civil Engineer Center (AFCEC) and address any applicable land use controls by evaluating project implementation to ensure continued protectiveness for human health and the environment.</li> <li>▪ Ensure construction contractor compliance with 29 CFR 1910.120 to address the health and safety of its employees during construction and demolition activities, with respect to worker exposure to hazardous substances and proper management of soil and groundwater encountered during construction, including testing, handling, and disposal procedures.</li> <li>▪ Comply with state requirements for the abandonment, if needed, of any monitoring wells, injection wells, extraction wells, sparge wells, or similar treatment facilities that are found within the area of the construction activities.</li> </ul>
<p>Noise (Section 3.8)</p>	<p>Implementation of the Proposed Action would not result in any aircraft noise related impacts on sensitive noise receptors in the vicinity of any alternative installation. Construction and demolition activities associated with the Proposed Action would be short term and would not create</p>	<ul style="list-style-type: none"> <li>▪ None required.</li> </ul>



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Resource Area	Impact Synopsis	Minimization/Mitigation Measures
	land use incompatibility, and are expected to result in a short-term, minor, adverse impact on the noise environment at and near each alternative installation.	
Socioeconomics (Section 3.9)	Minor, short-term direct beneficial socioeconomic impacts are expected to result from construction/facility modification activities due to equipment, materials, and services purchases and construction worker employment. The Proposed Action would not create new permanent jobs. The Proposed Action would result in long-term loss of full-time and part-time employment at each alternative installation due to the manpower decrement. Long-term adverse impacts would be negligible on a regional scale and the Proposed Action would result in no long-term changes in overall employment levels, unemployment rates, housing availability, or economic activity at or in the vicinity each alternative installation. Personnel impacted by manpower decrements may be transferred to other installations. Implementation of the Proposed Action would have no significant impact on socioeconomic resources.	<ul style="list-style-type: none"> <li>▪ None required.</li> </ul>
Safety and Occupational Health (Section 3.10)	Minor, short-term adverse impacts to contractor safety and occupational health could occur during construction at each Proposed Action alternative installation, as the typical risks associated with construction and/or demolition work increase. Environmental contaminants or regulated materials (e.g., soil/groundwater contaminants, asbestos, and lead paint) could increase contractor health and safety risks where these are present. Aircraft recapitalization would not change the risk currently being assumed by the respective AWs at each Proposed Action alternative installation, nor hinder the ability to respond to an emergency. No unacceptable risks would be incurred with appropriate safety waivers in place. Implementation of the Proposed Action would have no significant impact on safety and occupational health.	<ul style="list-style-type: none"> <li>▪ Follow and implement Air Force Occupational Safety and Health (AFOSH) and Occupational Safety and Health Administration (OSHA) safety standards to establish and maintain safety procedures for construction contractor employees.</li> <li>▪ Notify contractors of the presence and nature of known environmental contaminants, access restrictions, institutional controls, and land use controls specific to each potentially impacted site prior to beginning work. If excavation or dewatering is required at locations with known contaminants, evaluate and address land use controls by evaluating the project to ensure continued protectiveness for human health and the environment, and consult with AFCEC to ensure proper coordination.</li> <li>▪ Perform site specific asbestos and lead paint surveys where</li> </ul>



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Resource Area	Impact Synopsis	Minimization/Mitigation Measures
		<p>appropriate, prior to beginning work. If detected, implement management controls or abatement measures according to installation management plans and state requirements specific to each Proposed Action alternative installation.</p> <ul style="list-style-type: none"> <li>▪ Install fume vent systems as needed to ensure proper ventilation for employees working in new composite materials shops.</li> <li>▪ Obtain all necessary safety waivers as needed.</li> </ul>

Source: AECOM, 2023

Mitigation measures are also identified for any significant and unavoidable impacts. Mitigation measures avoid, minimize, remediate, or compensate for environmental impact. CEQ regulations (40 CFR 1508.20) define mitigation to include the following: 1) avoiding the impact altogether by not taking a certain action or parts of an action; 2) minimizing impacts by limiting the degree or magnitude of the action, and its implementation; 3) rectifying the impact by repairing, rehabilitating or restoring the affected environment; 4) reducing or eliminating the impact over time by preservation and maintenance options during the life of the action; and/or 5) compensating for the impact by replacing or providing substitute resources or environments.

Avoiding, minimizing, or reducing potential impacts has been a priority of the AFRC in guiding the development of the Proposed Action studied in this EA. Mitigation measures are built or designed into the Proposed Action (e.g., integrating design features), applied to construction activities associated with the actions (e.g., securing permits or applying Best Management Practices [BMP]s), or applied as compensatory measures. Prior to taking any action that will induce an impact, AFRC must ensure that all required mitigations for any impact-inducing actions are in place.

## 1.6 DECISION TO BE MADE

The AFRC will make one of the following three decisions regarding the Proposed Action:

- Select the No Action Alternative and do not implement the Proposed Action.
- Prepare a FONSI and implement the Proposed Action, if based on the analysis in this EA, the Proposed Action would not have a significant environmental impact.
- Initiate preparation of an EIS, if based on the analysis in this EA, the Proposed Action would have a significant environmental impact.

For this EA, the Air Force has determined that the environmental impact analysis conducted to date supports preparation of a FONSI, provided the minimization/mitigation measures identified in **Section 1.5** of this EA are implemented. No EIS is required for the Proposed Action.



## **CHAPTER 2 DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES**

### **2.1 PROPOSED ACTION**

The Proposed Action would implement the recapitalization of one squadron of eight C-130H aircraft to the C-130J model and make needed near-term modifications to existing facilities and infrastructure (e.g., hangars, ramps) required to accommodate the C-130J model and achieve IOC. The disposition of the existing C-130H fleet at the selected recapitalization AFRC base would be determined at a later date and is not part of the Proposed Action.

### **2.2 SELECTION STANDARDS**

Under NEPA and 32 CFR Part 989, this EA is required to analyze the potential environmental impacts of reasonable alternatives to the Proposed Action, including the No Action Alternative. Reasonable alternatives are those that meet the underlying purpose of and need for the Proposed Action, are feasible from a technical and economic standpoint, and meet reasonable selection standards (screening criteria) that are suitable to a particular action.

Selection standards may include requirements or constraints associated with operational, technical, environmental, budgetary, and time factors. Alternatives that are determined to not be reasonable can be eliminated from detailed analysis in this EA. Additionally, EO 11988 and EO 11990 require consideration of practicable alternatives to avoid adverse effects on floodplains and wetlands, respectively. Practicable alternatives are those that are capable of being done within existing constraints and include consideration of pertinent factors including the environment, community welfare, cost, and available technology.

Alternatives that satisfy established selection standards are considered reasonable and retained for consideration in this EA. Alternatives that do not meet one or more of the selection standards are eliminated and not carried forward for detailed analysis in the EA. **Table 2.2-1** presents a summary of the selection standards utilized to evaluate the Proposed Action and alternatives for this EA. Selection standards summarized on **Table 2.2-1** were developed based on a series of detailed criteria applied during the candidate selection phase of the Air Force Strategic Basing Process as outlined in DAFI 10-503, *Strategic Basing*.



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**TABLE 2.2-1 SELECTION STANDARDS SUMMARY**

ID	Standard Summary	Parameter	Evaluation Factor(s)
SS-01	<u>Mission Needs</u> : Location meets runway length, elevation, and weather condition requirements for mission operations	Hot Weather Frequency Per Year (number of days > 90°F average)	Fewer days on average are preferable. Additional runway length is needed for take-off operations in hot weather conditions.
		Primary Runway Takeoff Distance Available at Installation Runway Elevation (mean sea level)	Length requirements at maximum take-off weight and airport elevation, as reported in manufacturer performance data, are met.
SS-02	<u>Airspace and Training Areas</u> : Location meets drop zone, landing zone, and airspace and training requirements for mission operations	Meets Airspace and Training Area Requirements for Intended Missions Operations (i.e., low-level formation flying, night vision goggle, threat reduction/tactical data link sorties)	Airspace and training areas for referenced operations must exist and be available for use at the candidate installation.
		Provides Maximum Effort and Unimproved Landing Zones	In addition to paved runway for normal operations, location provides flexibility for operations that could require reduced ground roll (also known as maximum effort operations), which can be achieved using unimproved (i.e., unpaved dirt or turf) surfaces which slow landing aircraft speed faster.
		Provides Tactical Heavy Equipment, Container Delivery, and Personnel Drop Zones	Drop zones for missions must exist and be available for use at the candidate installation.
SS-03	<u>Facility Requirements</u> : Location meets IOC facility and infrastructure/transportation requirements	Aircraft Parking Positions	Provides at least six positions.
		Airfield Modifications	Avoids or reduces the need for major construction, reconstruction, or modification of runway, taxiway, or aircraft apron pavement.
		Composite Material Maintenance/Propeller Balancing	Building exists where composite material maintenance and propeller balancing can be performed.
		Fuel Cell Maintenance	Building exists where fuel cell maintenance can be performed.
		Infrastructure/Transportation Upgrades	Minimizes need for upgrades to civil infrastructure or transportation facilities.
		Scheduled Maintenance	Scheduled maintenance can be performed in existing facilities or can otherwise be met.
		Unscheduled Maintenance	Unscheduled maintenance can be performed in existing facilities or can otherwise be met.
SS-04	<u>Environmental Considerations</u> : Location	Air Quality	Location is within an area in compliance with all air quality standards. Other locations can be considered provided all



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ID	Standard Summary	Parameter	Evaluation Factor(s)
	avoids or minimizes impacts related to natural and environmental resources		applicable air quality permitting and control requirements applicable to the area can be achieved.
		Cultural Resources	Location is free of cultural resources, or interaction with cultural resources could be avoided, minimized, or mitigated.
		Floodplain	Location is outside of 100-year floodplain, or encroachment on floodplain resources could be avoided, minimized, or mitigated.
		Noise and Land Use (Compatibility and Encroachment)	Location does not significantly change noise-compatible land use, or impact noise sensitive receptors. All land uses remain compatible and there are no encroachment issues, or compatibility/encroachment can be reconciled.
		Wetlands	Location is outside of known wetland areas, or impacts to wetland resources could be avoided, minimized, or mitigated.
		Threatened/Endangered Species	Location is free of habitat for listed threatened or endangered species, or habitat impacts could be avoided, minimized, or mitigated.
SS-05	<u>Morale, Welfare, and Readiness</u> : Location provides adequate healthcare, educational, and housing support for personnel and their families	Healthcare, Education, and Housing Facilities and Services Available	As described by parameter.
SS-06	<u>Cost</u> : Consider IOC facility modification and Operation and Maintenance (O&M) costs	Facilities Cost	Considers whether capital outlay is required for facility modifications. Lower costs for facility modifications are preferred over higher costs.
		O&M Training Costs/Savings	Considers the amount of training costs required (or savings realized). Lower costs/higher savings are preferred.
		O&M Manpower Costs/Savings	Considers the amount of manpower costs required (or savings realized). Lower costs/higher savings are preferred.
		Total Net Cost	Considers the total net cost for achieving IOC for a candidate location, represented by facilities and O&M costs less any O&M savings realized. Lower total net costs are preferred.

1 Source: AECOM, 2023; U.S. AFRC, 2022a; U.S. AFRC, 2022b; U.S. AFRC, 2022c; U.S. AFRC, 2022d.



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**2.3 ALTERNATIVES CONSIDERED**

The Air Force Strategic Basing Board directed that four tactical airlift AFRC C-130H locations be surveyed for possible recapitalization with the C-130J. On 07 July 2022, AFRC was authorized to initiate surveys at these four candidate bases, which are considered alternatives to the Proposed Action in this EA. Surveys occurred between 25 July 2022 and 15 September 2022. For the purposes of this EA, only these four installations with existing C-130H tactical airlift missions/capabilities were considered. Other AFRC installations without existing mission/capabilities, or installations with capabilities that would need to undergo significant modifications to achieve C-130J IOC (e.g., multiple new facility construction, installation of new runway/taxiway/apron), were eliminated from detailed analysis.

**2.3.1 ALTERNATIVE 1 – YOUNGSTOWN ARS**

In wartime, the 910th Airlift Wing's (910 AW) mission at Youngstown ARS, Ohio is to employ the C-130H aircraft in tactical airlift combat operations. These operations include low-level infiltration into a combat environment, where crews can deliver personnel and materials by airdrop and air land techniques. The 910 AW is also tasked by the Department of Defense (DoD) with secondary missions including insect control, vegetation control on bombing ranges, and oil neutralization. 910 AW operates the large area fixed wing spray capability and is one of four approved centers for pesticide application using Modular Aerial Spray Systems (MASS). The 757th Airlift Squadron operates and flies spray missions and the 910th Maintenance Group maintains MASS equipment systems. Conversion to the C-130J would reduce the need for an additional support aircraft when performing fire break missions at Hill Air Force Base's (AFB) Utah Test and Training Range, and other pesticide missions at Mountain Home AFB, Idaho, and Grand Forks AFB, North Dakota.

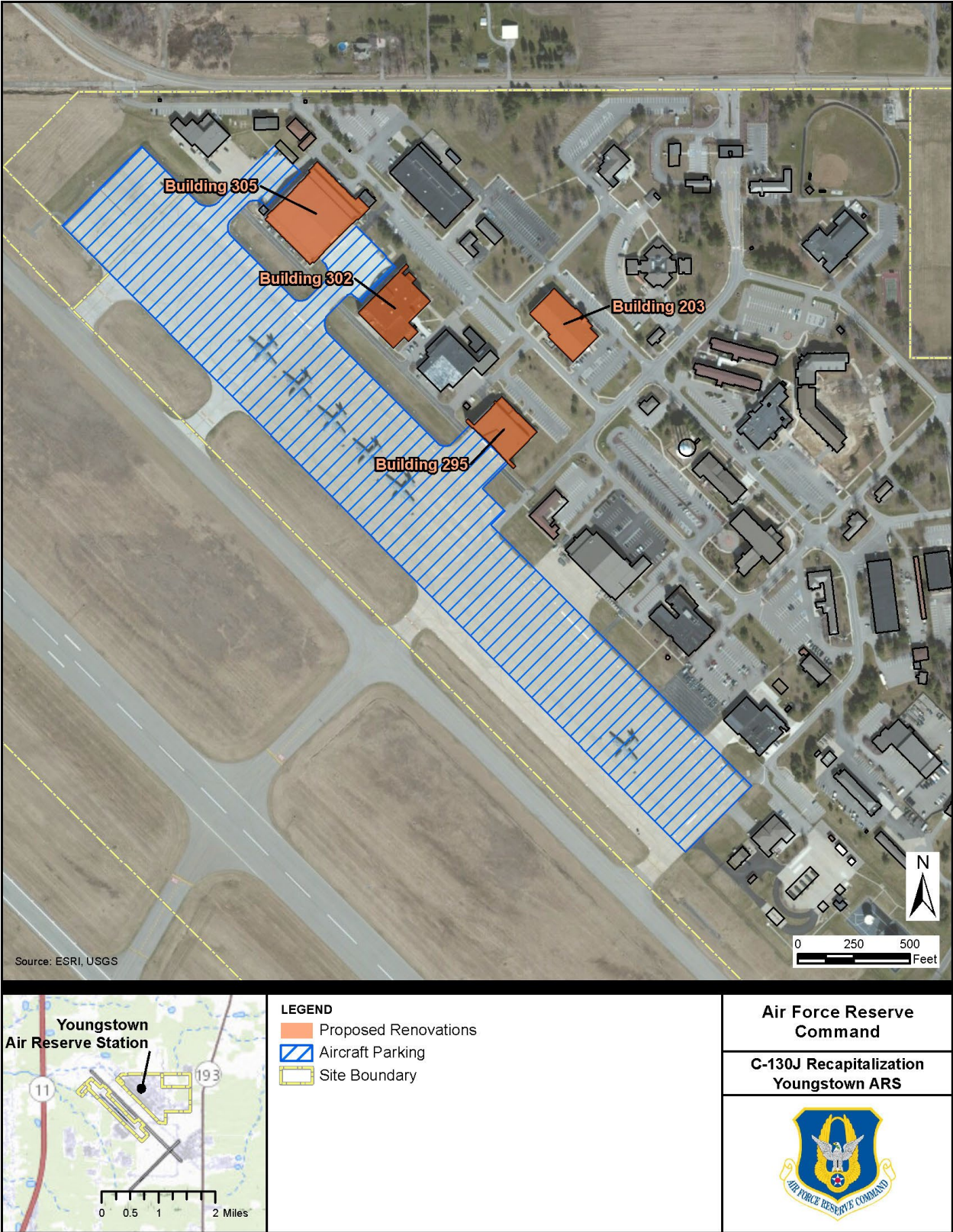
Facility modifications necessary to accept the C-130J at Youngstown ARS and achieve IOC would include establishing a composite material maintenance shop, co-located with a corrosion maintenance shop in Building 302, requiring installation of a fume vent system with exhaust to the building exterior; as well as enclosing an interior area of Building 203 to provide environmentally conditioned space to store engines and propellers, including replacing the existing propeller balancing table (see **Figure 2.3-1**). An elevated mezzanine containing a mechanical room (585 square feet) in the hangar nose pocket of Building 295 would need to be demolished to accommodate the increased length of the new C-130J aircraft for fuel cell maintenance to be performed in Building 295.

Fuel cell maintenance would temporarily be relocated from Building 295 to Building 302 during this conversion, and then re-established in Building 295. Building 302 is currently the scheduled maintenance hangar for the C-130H mission and would become the unscheduled maintenance hangar for the C-130J with no modifications needed. Building 305 is currently the C-130H unscheduled maintenance hangar and would become the C-130J maintenance hangar with no modifications needed. There is no ceiling crane in Building 305 and thus scheduled maintenance would require the installation and use of a mobile crane to support engine or large component removal. Safety waivers would be required for Buildings 295 and 302 due to noise-pocket and building wall separation, and Building 305 for door and ceiling height aircraft clearance. No transportation network or civil infrastructure upgrades or modifications would be necessary at this location.



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FIGURE 2.3-1 ALTERNATIVE 1 – YOUNGSTOWN ARS





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Adequate ramp space is available to provide eight C-130J aircraft parking positions. Necessary airfield modification would consist of re-striping the airfield to adjust taxiway positions in order to maintain aircraft safety separations for the longer C-130J and installing new ramp mooring points for each parking position.

As shown on **Table 2.3-1**, due to the lesser manpower requirements of the C-130J compared to the C-130H, recapitalization at Youngstown ARS would result in a manpower decrement of 35 total (5 full-time and 30 part-time).

**TABLE 2.3-1 MANPOWER CHANGES FOR EACH ALTERNATIVE**

Alternative	Function	Full-Time Officer	Full-Time Enlisted	Full-Time Civilian	Part-Time Officer	Part-Time Enlisted	Total
Alternative 1 – Youngstown ARS	Operations	-1	-1	-6	-16	-24	-48
	Maintenance	0	0	+3	0	10	+13
	<i>Net Change</i>	<i>-1</i>	<i>-1</i>	<i>-3</i>	<i>-16</i>	<i>-14</i>	<i>-35</i>
Alternative 2 – Dobbins ARB	Operations	-2	-2	-3	-10	-8	-25
	Maintenance	0	0	+3	0	0	+3
	<i>Net Change</i>	<i>-2</i>	<i>-2</i>	<i>0</i>	<i>-10</i>	<i>-8</i>	<i>-22</i>
Alternative 3 – Minneapolis-St. Paul ARS	Operations	-1	0	-6	-9	-10	-26
	Maintenance	0	0	+3	0	0	+3
	<i>Net Change</i>	<i>-1</i>	<i>0</i>	<i>-3</i>	<i>-9</i>	<i>-10</i>	<i>-23</i>
Alternative 4 – Peterson SFB	Operations	-2	-2	-3	-14	-18	-39
	Maintenance	0	0	+3	0	+1	+4
	<i>Net Change</i>	<i>-2</i>	<i>-2</i>	<i>0</i>	<i>-14</i>	<i>-17</i>	<i>-35</i>

Source: U.S. AFRC, 2022a; U.S. AFRC, 2022b; U.S. AFRC, 2022c; U.S. AFRC, 2022d

### **2.3.1.1 Alternative 1 Selection Standards Evaluation**

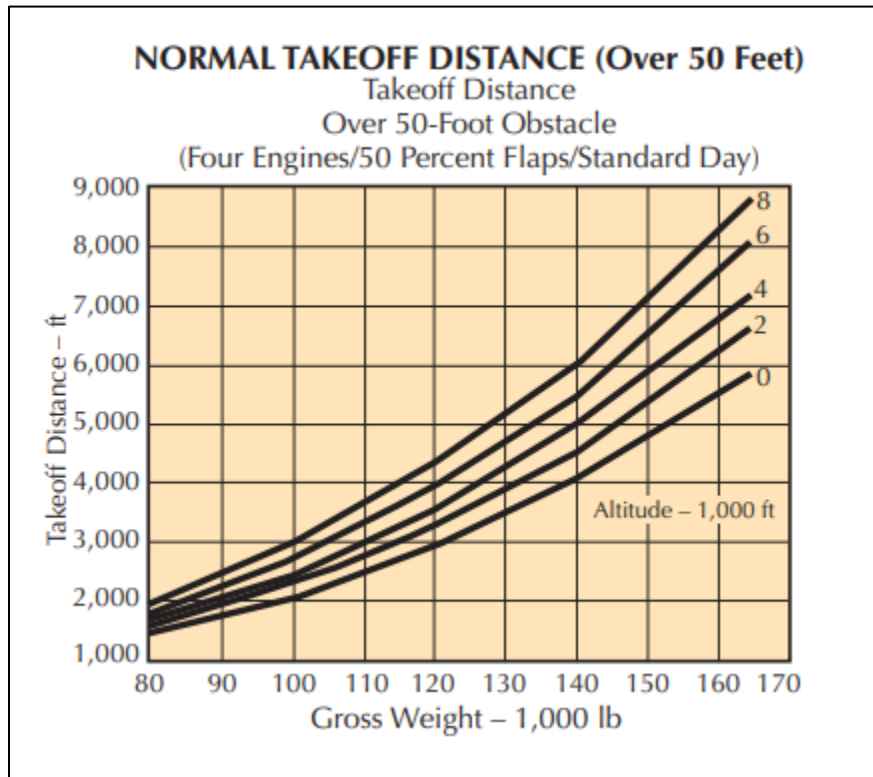
**Selection Standard SS-01 - Mission Needs:** Based on performance data published by the aircraft manufacturer, the C-130J requires approximately 6,100 feet of runway take-off length at an elevation of 1,192 feet above sea level (**Figure 2.3-2**). Alternative 1 satisfies C-130J mission operational requirements by providing adequate runway takeoff length with 9,003 feet of primary runway takeoff distance available at this elevation. The area also experiences ten days annually on average where temperatures exceed 90 degrees, which minimizes the amount of time annually where additional runway length could be required due to hot weather conditions. Because only approximately 6,100 feet is required and 9,003 feet is available, Alternative 1 could accommodate additional runway length needed for hot weather operations in these instances.

**Selection Standard SS-02 – Airspace and Training Areas:** This alternative also satisfies all mission airspace and training requirements by providing airspace, maximum effort and unimproved landing zones, and tactical heavy equipment, container delivery, and personnel drop zones necessary for conducting intended mission operations.



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**FIGURE 2.3-2 RUNWAY LENGTH REQUIREMENTS**



Source: Lockheed Martin, <https://www.lockheedmartin.com/content/dam/lockheed-martin/aero/documents/C-130J/C130JPocketGuide.pdf> accessed June 2023.

**Selection Standard SS-03 – Facility Requirements:** Facility modifications can be made to achieve all IOC facility requirements to accept the C-130J, providing capacity for propeller balancing, composite material maintenance, fuel cell maintenance, and scheduled/unscheduled maintenance needs. This alternative provides at least six aircraft parking positions. Airfield modifications would consist of re-striping and mooring point installation. Safety waivers for Buildings 295, 302, and 305 would need to be obtained due to building and aircraft clearance requirements. No transportation network or civil infrastructure upgrades or modifications would be necessary.

**Selection Standard SS-04 – Environmental Considerations:** This alternative is located in a National Ambient Air Quality Standards (NAAQS) compliant area. Potential environmental impacts would be minor to negligible at the proposed location. There are no known cultural resource, floodplain, or wetland resources located in the project areas, and the Proposed Action at this alternative location is not expected to generate significant additional noise or otherwise make existing land uses/sensitive receptors noise incompatible. There are no land use compatibility or encroachment issues. Information available from installation records as well as the U.S. Fish and Wildlife Service (USFWS) Information for Consultation and Planning (IPaC) tool indicates one federally listed endangered (Indiana bat), one federally listed threatened (eastern massasauga), one proposed endangered (tricolored bat), and one candidate species (monarch butterfly) have potential to occur on or near the base. However, the Proposed Action areas are fully developed and likely do not provide suitable habitat for these species. No critical habitat is present.



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**Selection Standard SS-05 – Morale, Welfare, and Readiness:** Adequate healthcare, educational, and housing facilities and support services are available to provide continued support to personnel and their families (U.S. AFRC, 2022b; U.S. AFRC, 2023a).

**Selection Standard SS-06 – Cost:** A manpower decrement of 35 personnel would result in an annual manpower savings of \$1.7 million, which offsets operation and maintenance (O&M) costs associated with additional required training (\$1.9 million). Facility modification costs at \$3.4 million make Alternative 1 one of the two most expensive alternatives being considered in terms of capital outlay.

Alternative 1 achieves all established selection standards and is therefore retained as a reasonable and feasible alternative for detailed evaluation in the EA.

### **2.3.2 ALTERNATIVE 2 – DOBBINS ARB**

The 94th Airlift Wing (94 AW) is the host unit at Dobbins ARB in Marietta, Georgia. It is responsible for providing combat-ready units ready to deploy on short notice to support operations around the world. The wing is also responsible for providing security, civil engineering, fire protection, air traffic control and other services to the base and its tenant units. The wing also provides maintenance for the airfield, which is used by the Air Force Reserve, Georgia National Guard, Lockheed Martin, and a number of other federal organizations.

Facility modifications necessary to accept the C-130J at Dobbins ARB and achieve IOC would include establishing a composite material maintenance shop in Building 831, which requires partitioning of existing interior space, relocation of communication equipment, and installation of a fume vent system, as well as installing a propellor balancing table in the engine shop bay of Building 838. Building 731 is currently the C-130H fuel cell maintenance hangar and would become the C-130J fuel cell maintenance hangar with no needed modifications; however, the 94 AW would have to accept a safety buffer risk of four feet from the recommended 15 foot separation between the aircraft noise and hangar wall. Building 838 is currently the C-130H scheduled maintenance hangar and would become the C-130J scheduled maintenance hangar with no modifications or safety waivers needed. Unscheduled maintenance for the C-130J would be performed in Building 746. The existing nose-dock can be used “as is” for C-130J maintenance with the hangar doors partially open. No transportation network or civil infrastructure upgrades or modifications would be necessary.

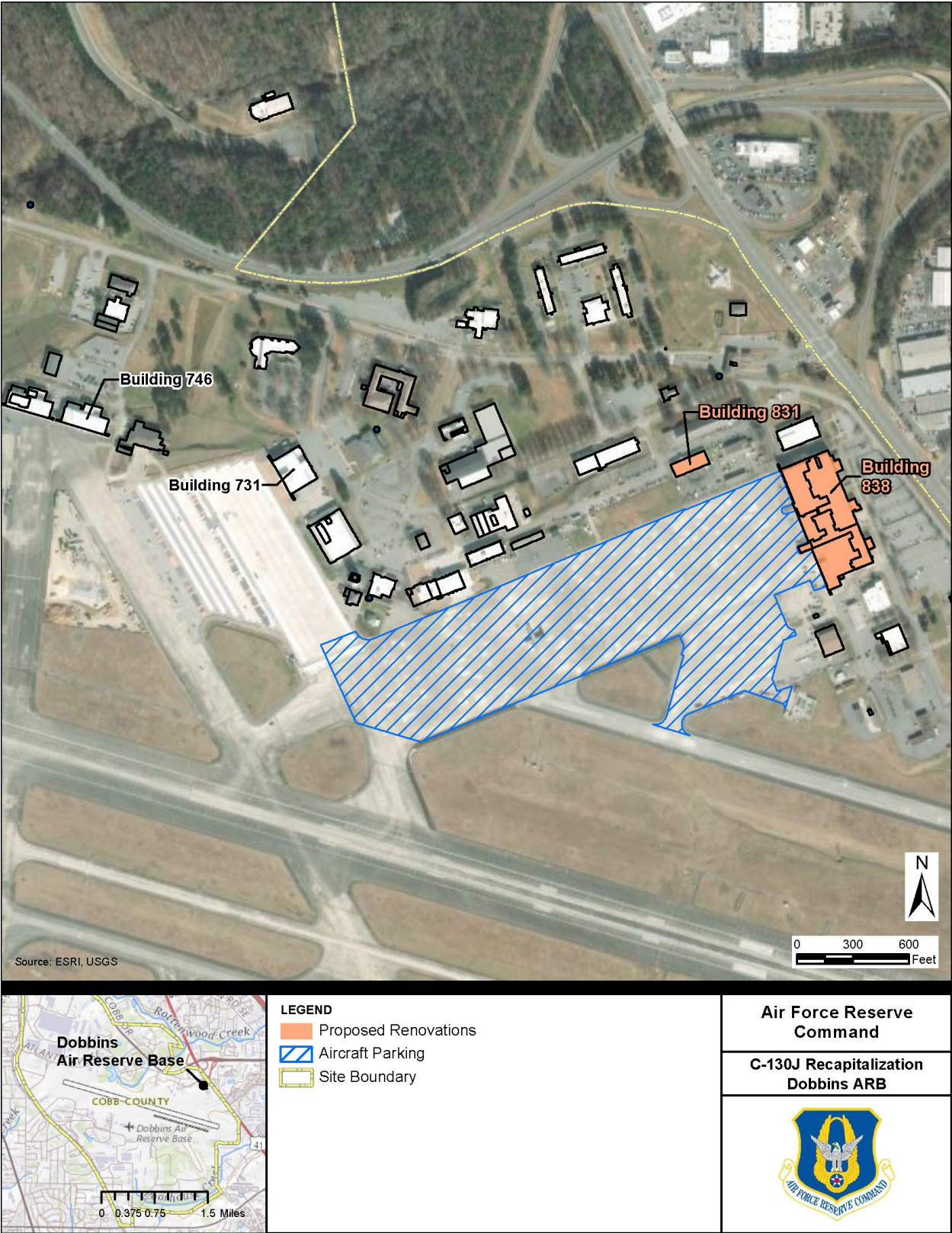
Adequate ramp space is available to provide eight C-130J aircraft parking positions, however, existing ramp mooring points on the airfield would be relocated (see **Figure 2.3-3**).

As shown on **Table 2.3-1**, due to the lesser manpower requirements of the C-130J compared to the C-130H, recapitalization at Dobbins ARB would result in a manpower decrement of 22 total (4 full-time and 18 part-time).



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FIGURE 2.3-3 ALTERNATIVE 2 – DOBBINS ARB





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**2.3.2.1 Alternative 2 Selection Standards Evaluation**

**Selection Standard SS-01 - Mission Needs:** Based on performance data published by the aircraft manufacturer, the C-130J requires approximately 6,100 feet of runway take-off length at an elevation of 1,000 feet above sea level (**Figure 2.3-2**). Alternative 2 satisfies C-130J mission operational requirements by providing runway takeoff length of 10,002 feet at this elevation. The area also experiences an average of 47 days over 90 degrees annually which could therefore increase the takeoff length required for routine operations. Because only approximately 6,100 feet is required and 10,002 feet is available, Alternative 2 could accommodate additional runway length needed for hot weather operations in these instances.

**Selection Standard SS-02 – Airspace and Training Areas:** This alternative also satisfies all mission airspace and training requirements by providing airspace, maximum effort and unimproved landing zones, and tactical heavy equipment, container delivery, and personnel drop zones necessary for conducting intended mission operations.

**Selection Standard SS-03 – Facility Requirements:** Facility modifications can be made to achieve all IOC facility requirements to accept the C-130J, providing capacity for propeller balancing, composite material maintenance, fuel cell maintenance, and scheduled/unscheduled maintenance needs. This alternative provides at least six aircraft parking positions. Airfield modifications would consist of mooring point installation. No transportation network or civil infrastructure upgrades or modifications would be necessary.

**Selection Standard SS-04 – Environmental Considerations:** The area is located in an air quality maintenance area for the Ozone (O<sub>3</sub>) NAAQS, requiring compliance of the Proposed Action's air emissions with state and local permitting and air quality control requirements in nonattainment/maintenance areas. Other potential environmental impacts would be minor to negligible at the proposed location. There are no known cultural resource, floodplain, or wetland resources located in the project areas, and the Proposed Action at this alternative location is not expected to create noise-incompatible land uses or sensitive receptors. There are no land use compatibility or encroachment issues. Information available from installation records as well as the USFWS IPaC tool indicates that one federally threatened (white fringeless orchid), two federally endangered (gray bat and Michaux's sumac), one proposed endangered (tricolored bat), and one candidate species (monarch butterfly) have potential to occur on or near the base. An experimental population of whooping crane was also identified by IPaC but does not intersect Dobbins ARB. The pink lady slipper was also identified in base records (state protected). The project areas are fully developed and likely do not provide suitable habitat for these species. No critical habitat is present.

**Selection Standard SS-05 – Morale, Welfare, and Readiness:** Adequate healthcare, education, and housing facilities and support services are available to provide continued support to personnel and their families (U.S. AFRC, 2022a).

**Selection Standard SS-06 – Cost:** A manpower decrement of 22 personnel would result in an annual manpower savings of \$1.1 million, which offsets O&M costs associated with additional required training (\$1.9 million). Compared to other alternatives, Alternative 2 minimizes total net facility modification (\$460,000) and O&M costs.



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Alternative 2 achieves all established selection standards and is therefore retained as a reasonable and feasible alternative for detailed evaluation in the EA.

**2.3.3 ALTERNATIVE 3 – MINNEAPOLIS-ST. PAUL ARS**

The 934th Airlift Wing (934 AW), Minneapolis-St. Paul ARS, Minnesota, also known as the "Global Vikings," is Minnesota's only Air Force Reserve unit. It is a combat-ready AFRC flying unit, which serves as the DoD's host for Army, Navy, Marine, and Air National Guard units. The 934 AW's primary function is to provide tactical airlift support for the Regular Air Force.

Facility modifications necessary to accept the C-130J at Minneapolis-St. Paul ARS and achieve IOC would include a 20-foot by 14-foot by 14-foot nose pocket extension on Building 870 to enable the aircraft tow truck to remain on level surface and out of the weather during aircraft towing procedures (see **Figure 2.3-4**). Additionally, a composite material maintenance shop would be established in Building 710, and the sheet metal shop would be relocated from Building 821 to the space adjacent to the composite material maintenance shop in Building 710. Finally, a new propeller balancing table would be installed in the engine shop of Building 822.

Building 870 is currently used for C-130H fuel cell maintenance and can continue to be used for C-130J fuel cell maintenance. The south bay of Building 821 is currently the scheduled maintenance hangar for the C-130H and would become the scheduled maintenance hangar for the C-130J with no modifications needed. There would be no existing hangar support for unscheduled C-130J maintenance. Unscheduled C-130H maintenance is currently performed in the north bay of Building 821 and currently has safety waivers for inadequate separation of aircraft from hangar doors and other aircraft in the south bay. Temporary near-term support for the C-130J unscheduled maintenance can continue to be provided in the north bay of Building 821 with no modifications needed but would also require extension or modification of existing waivers. Alternatively, unscheduled maintenance can be temporarily conducted in the south bay if scheduled maintenance cycles could be rescheduled. A long-term facility construction/demolition project would be required to provide permanent capability at a future time, which is not included in the actions included in this EA. New and/or modified safety waivers would be required for Building 870 and Building 821 for door, interior, and length deficiencies. No transportation network or civil infrastructure upgrades or modifications would be necessary.

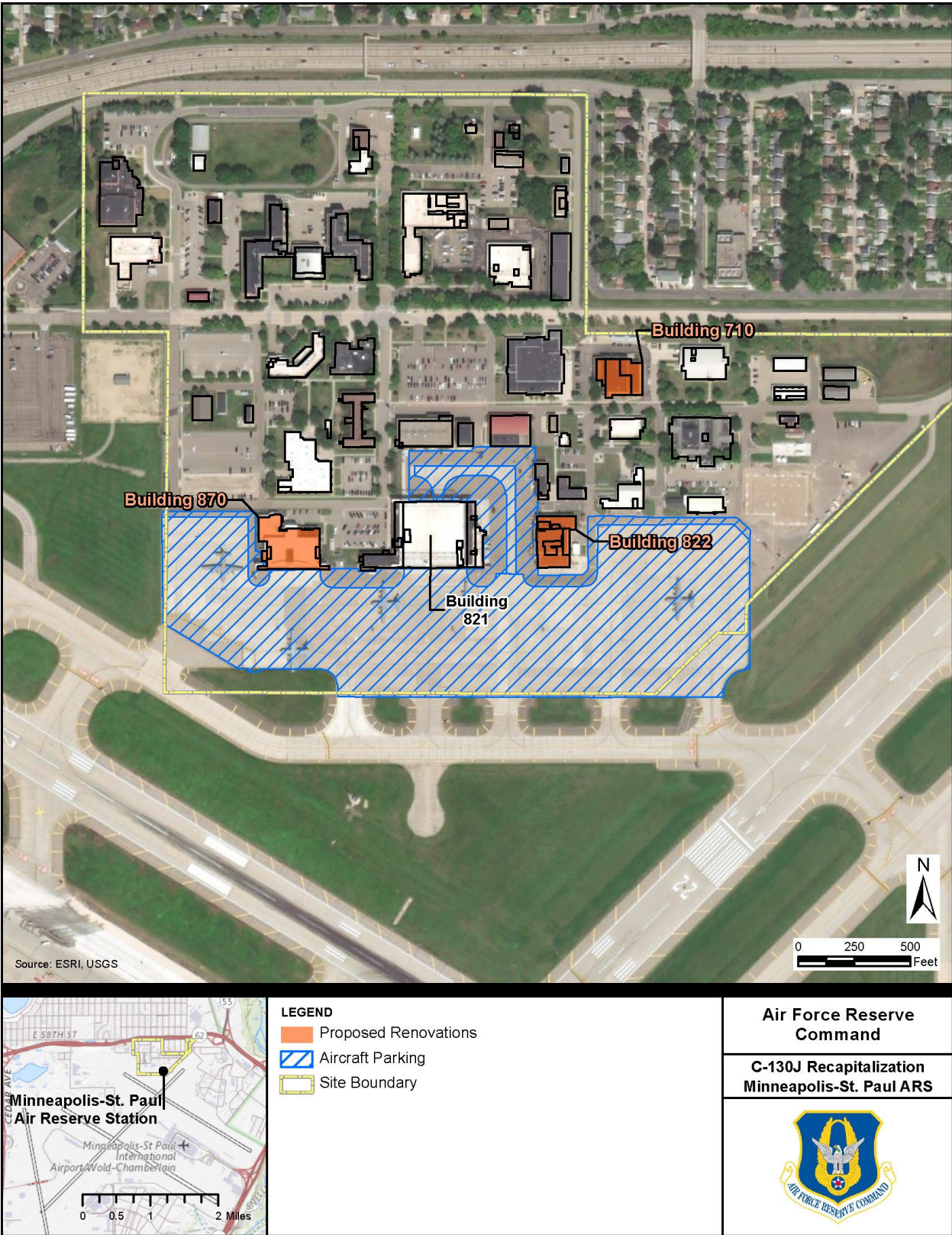
Adequate ramp space is available to provide six parking positions for the C-130J aircraft. Necessary airfield modifications consist of re-striping to adjust taxiway positions in order to maintain aircraft safety separations for the longer C-130J and installation of new mooring points at each new aircraft parking position.

As shown on **Table 2.3-1**, due to the lesser manpower requirements of the C-130J compared to the C-130H, recapitalization at Minneapolis-St. Paul ARS would result in a manpower decrement of 23 total (4 full-time and 19 part-time).



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FIGURE 2.3-4 ALTERNATIVE 3 – MINNEAPOLIS-ST. PAUL ARS





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**2.3.3.1 Alternative 3 Selection Standards Evaluation**

**Selection Standard SS-01 - Mission Needs:** Based on performance data published by the aircraft manufacturer, the C-130J requires approximately 6,000 feet of runway take-off length at an elevation of 842 feet above sea level (**Figure 2.3-2**). Alternative 3 satisfies C-130J mission operational requirements by providing runway takeoff length of 11,006 feet at this elevation. The area also experiences an average of 13 days annually on average where temperatures exceed 90 degrees, which minimizes the amount of time annually where additional runway length could be required due to hot weather conditions. Because only approximately 6,000 feet is required and 11,006 feet is available, Alternative 3 could accommodate additional runway length needed for hot weather operations in these instances.

**Selection Standard SS-02 – Airspace and Training Areas:** This alternative also satisfies all mission airspace and training requirements by providing airspace, maximum effort and unimproved landing zones, and tactical heavy equipment, container delivery, and personnel drop zones necessary for conducting intended mission operations.

**Selection Standard SS-03 – Facility Requirements:** Facility modifications can be made to achieve all IOC facility requirements to accept the C-130J, including propeller balancing, composite material maintenance, fuel cell maintenance, and scheduled maintenance needs. Facilities would be available temporarily for unscheduled maintenance provided that existing waivers could be extended or modified, and/or provided that scheduled maintenance cycles could be adjusted. A longer-term facility construction/demolition project would be required to provide permanent capability at a future time, which is not included in the actions included in this EA. Safety waivers would need to be obtained due to building and aircraft clearance requirements for Building 870 and Building 821. This alternative provides at least six aircraft parking positions. Airfield modifications required consist of restriping and mooring point installation. No transportation network or civil infrastructure upgrades or modifications would be necessary.

**Selection Standard SS-04 – Environmental Considerations:** The area is located in an air quality maintenance area for the carbon monoxide (CO) and sulfur dioxide (SO<sub>2</sub>) NAAQS, requiring compliance of the Proposed Action's air emissions with state and local permitting and air quality control requirements in nonattainment/maintenance areas. There are no known cultural resource, floodplain, or wetland resources located in the project areas, and the Proposed Action at this alternative location is not expected to create noise-incompatible land uses or sensitive receptors. There are no land use compatibility or encroachment issues. Information available from installation records as well as the USFWS IPaC tool identified three federally endangered (northern long-eared bat, Higgins eye, rusty patched bumble bee), one proposed endangered (tricolored bat), and one candidate species (monarch butterfly) with potential to occur on or near the base. An experimental population of whooping crane was also identified by IPaC but does not intersect Minneapolis-St. Paul ARS. The project areas are fully developed and likely do not provide suitable habitat for these species. No critical habitat is present.

**Selection Standard SS-05 – Morale, Welfare, and Readiness:** Adequate healthcare, education, and housing facilities and support services are available to provide continued support to personnel and their families (U.S. AFRC, 2022c).



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**Selection Standard SS-06 – Cost:** A manpower decrement of 23 personnel would result in an annual manpower savings of \$1.1 million, which offsets O&M costs associated with additional required training (\$1.9 million). Facility modification costs at \$3.5 million make Alternative 3 one of the two most expensive alternatives being considered in terms of capital outlay.

Alternative 3 achieves all established selection standards and is therefore retained as a reasonable and feasible alternative for detailed evaluation in the EA.

**2.3.4 ALTERNATIVE 4 – PETERSON SFB**

The mission of the 302nd Airlift Wing (302 AW), Peterson SFB, Colorado, is to train, equip and employ airlift forces in worldwide support of the nation's vital interests. The primary operational mission of the 302 AW is tactical airlift and airdrop. The wing also has the C-130 special mission of aerial firefighting employing the U.S. Forest Service's Modular Airborne Fire Fighting Systems (MAFFS), as well as an aeromedical evacuation mission. In a five-year period, approximately 20 percent of the total flying-hour program is dedicated to MAFFS missions. MAFFS C-130H missions at Peterson SFB do not require the use of additional support aircraft.

Facility modifications necessary to accept the C-130J at Peterson SFB and achieve IOC would include an approximately 30-foot by 36-foot addition to the northwest side of Building 216, to establish a composite material maintenance shop, and installation of the new propellor balancing table in the engine shop bay of Building 502.

The Building 210 right bay currently used for C-130H fuel cell maintenance would be used for C-130J fuel cell maintenance. Scheduled maintenance for the C-130J would be performed in the Building 210 left bay, and unscheduled maintenance would be performed in Building 214. Safety waivers would be required for Building 210 for existing door, interior, and length clearance deficiencies, as well as Building 214 for aircraft/hangar door separation.

Adequate ramp space is available to provide eight C-130J aircraft parking positions. Necessary airfield modifications consist of re-striping the airfield ramp to adjust taxiway positions in order to maintain aircraft safety separations for the longer C-130J, and installing new mooring points for each parking position (see **Figure 2.3-5**).

As shown on **Table 2.3-1**, due to the lesser manpower requirements of the C-130J compared to the C-130H, recapitalization at Peterson SFB would result in a manpower decrement of 35 total (4 full-time and 31 part-time).



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FIGURE 2.3-5 ALTERNATIVE 4 – PETERSON SFB





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**2.3.4.1 Alternative 4 Selection Standards Evaluation**

**Selection Standard SS-01 - Mission Needs:** Based on performance data published by the aircraft manufacturer, the C-130J requires approximately 8,000 feet of runway take-off length at an elevation of 6,187 feet above sea level (**Figure 2.3-2**). Alternative 4 satisfies C-130J mission operational requirements by providing runway length of 13,500 feet at this elevation. The area also experiences an average of 44 days over 90 degrees annually which could therefore increase the takeoff length required for routine operations. Because only approximately 8,000 feet is required and 13,500 feet is available, Alternative 4 could accommodate additional runway length needed for hot weather operations in these instances.

**Selection Standard SS-02 – Airspace and Training Areas:** This Alternative also satisfies all mission airspace and training requirements by providing airspace, maximum effort and unimproved landing zones, and tactical heavy equipment, container delivery, and personnel drop zones necessary for conducting intended mission operations.

**Selection Standard SS-03 – Facility Requirements:** Facility modifications can be made to achieve all IOC facility requirements to accept the C-130J, including propeller balancing, composite material maintenance, fuel cell maintenance, and scheduled/unscheduled maintenance needs. This alternative provides at least six aircraft parking positions. Airfield modifications would consist of re-striping and mooring point installation. Safety waivers would need to be obtained for Building 210 and Building 214 due to building and aircraft clearance requirements. No transportation network or civil infrastructure upgrades or modifications would be necessary.

**Selection Standard SS-04 – Environmental Considerations:** The area is located in an air quality maintenance area for the CO NAAQS, requiring compliance of the Proposed Action's air emissions with state and local permitting and air quality control requirements in nonattainment/maintenance areas. There are no known cultural resource, floodplain, or wetland resources located in the project areas, and the Proposed Action at this alternative location is not expected to create noise incompatible land uses or sensitive receptors. There are no land use compatibility or encroachment issues. Information available from installation records as well as the USFWS IPaC tool indicates that two federally listed endangered (gray wolf and pallid sturgeon), four threatened (eastern black rail, piping plover, greenback cutthroat trout, and Ute ladies'-tresses) and one candidate species (monarch butterfly) have potential to occur on or near the base. However, the project areas are fully developed and likely do not provide suitable habitat for these species. No critical habitat is present.

**Selection Standard SS-05 – Morale, Welfare, and Readiness:** Adequate healthcare, education, and housing facilities and support services are available to provide continued support to personnel and their families (U.S. AFRC, 2022d).

**Selection Standard SS-06 – Cost:** A manpower decrement of 35 personnel would result in an annual manpower savings of \$1.6 million, which offsets O&M costs associated with additional required training (\$1.9 million). With facility modification costs at \$2.5 million, Alternative 4 is more cost effective than Alternatives 1 and 3 in terms of capital outlay.



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Alternative 4 achieves all established selection standards and is therefore retained as a reasonable and feasible alternative for detailed evaluation in the EA.

**2.3.5 NO-ACTION ALTERNATIVE**

Under the No-Action Alternative, recapitalizing one squadron of eight C-130H aircraft to the C-130J would not be realized. The four AFRC installations' C-130H squadrons would continue to operate and fulfill current missions. Modifications to infrastructure (e.g., hangars, ramps) required to accommodate the C-130J model would not occur. No impacts to environmental resources would occur, and long-term life-cycle cost savings associated with recapitalization due to manpower decrements and decreased support aircraft flying time would not occur.

**2.3.6 CONCLUSION**

As described in **Section 2.2**, alternatives that satisfy applicable selection standards are considered reasonable and retained for consideration in this EA. Alternatives that do not meet one or more of the selection standards are eliminated and not carried forward for detailed analysis in the EA. **Table 2.3-2** summarizes the above evaluation for each action alternative under consideration against established selection standards. Based on the information summarized in the preceding sections and on **Table 2.3-2**, all four alternatives satisfy the selection standards and are retained for detailed analysis in this EA. Of note, the No-Action Alternative is also carried forward in the EA in part for comparative analysis.



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TABLE 2.3-2 ALTERNATIVES EVALUATION SUMMARY

Selection Standard	Parameter	Evaluation Factor(s)	Alternative 1 Youngstown ARS	Alternative 2 Dobbins ARB	Alternative 3 Minneapolis-St. Paul ARS	Alternative 4 Peterson SFB
<u>SS-01 Mission Needs</u> : Location meets runway length, elevation, and weather condition requirements for mission operations	Hot Weather Frequency Per Year (number of days > 90°F average)	Fewer days on average are preferable. Additional runway length is needed for take-off operations in hot weather conditions.	10 days	47 days	13 days	44 days
	Primary Runway Takeoff Distance Available at Installation Runway Elevation (mean sea level)	Length requirements at maximum take-off weight and airport elevation as reported in manufacturer performance data are met.	~6,100 feet required at 1,192 feet elevation; 9,003 feet provided	~6,100 feet required at 1,000 feet elevation; 10,002 feet provided	~6,000 feet required at 842 feet elevation; 11,006 feet provided	~8,000 feet required at 6,187 feet elevation; 13,500 feet provided
<u>SS-02 Airspace and Training Areas</u> : Location meets drop zone, landing zone, and airspace and training requirements for mission operations	Meets Airspace and Training Area Requirements for Intended Missions Operations (i.e., low-level formation flying, night vision goggle, threat reduction/tactical data link sorties)	Airspace and training areas for referenced operations must exist and be available for use at the candidate installation.	Yes	Yes	Yes	Yes
	Provides Maximum Effort and Unimproved Landing Zones	In addition to paved runway for normal operations, location provides flexibility for operations that could require reduced ground roll (also known as maximum effort operations), which can be achieved using unimproved (i.e., unpaved dirt or turf) surfaces which slow landing aircraft speed faster.	Yes	Yes	Yes	Yes
	Provides Tactical Heavy Equipment, Container Delivery, and Personnel Drop Zones	Drop zones for missions must exist and be available for use at the candidate installation.	Yes	Yes	Yes	Yes
<u>SS-03 Facility Requirements</u> : Location meets IOC facility and infrastructure/transportation requirements	Aircraft Parking Positions	Provides at least six positions.	>6	>6	>6	>6
	Airfield Modifications	Avoids or reduces the need for major construction, reconstruction, or modification of runway, taxiway, or aircraft apron pavement.	Ramp re-striping and new mooring points	Ramp re-mooring	Ramp re-striping and new mooring points	Ramp re-striping and new mooring points
	Composite Material Maintenance/Propeller Balancing	Building exists where composite material maintenance and propeller balancing can be performed.	Reconfigure Building 302. Modify Building 203 to include environmentally conditioned propeller storage and replacement balancing table	Reconfigure Building 831 including fuel vent system installation. Install propeller balancing table in Building 838	Convert Building 710. Install propeller balancing table in Building 822	Expand Building 216 (30 feet x 36 feet). Install propeller balancing table in Building 502
	Fuel Cell Maintenance	Building exists where fuel cell maintenance can be performed.	Building 295 with demolition of existing mezzanine, and safety waivers required due to nose-pocket and building wall separation	Building 731, accepting a safety buffer risk of four feet from the recommended 15 foot separation between the aircraft noise and hangar wall	Building 870 with safety waivers for existing door, interior, and length clearance deficiencies. Nose pocket extension (20 feet x 14 feet x 14 feet) required	Building 210 with safety waivers for existing door, interior, and length clearance deficiencies
	Infrastructure/Transportation Upgrades	Minimizes need for upgrades to civil infrastructure or transportation facilities.	None	None	None	None
	Scheduled Maintenance	Scheduled maintenance can be performed in existing facilities or can otherwise be met.	Building 305, with safety waivers for door and ceiling height clearance	Building 838	Building 821 south bay with safety waivers for existing door, interior, and width/length clearance deficiencies	Move from Building 214 to Building 210 to accommodate maintenance stand height



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Selection Standard	Parameter	Evaluation Factor(s)	Alternative 1 Youngstown ARS	Alternative 2 Dobbins ARB	Alternative 3 Minneapolis-St. Paul ARS	Alternative 4 Peterson SFB
	Unscheduled Maintenance	Unscheduled maintenance can be performed in existing facilities or can otherwise be met.	Building 302, with safety waivers required due to nose-pocket and building wall separation	Building 746. Nose-dock can be used with the doors partially open	Building 821 north bay with safety waivers for existing door, interior, and width/length clearance deficiencies; or Building 821 south bay (with safety waivers for existing door, interior, and width/length clearance deficiencies) during times when scheduled maintenance cycles can be adjusted	Building 214 with safety waivers for inadequate aircraft/hangar door separation
<u>SS-04 Environmental Considerations:</u> Location avoids or minimizes impacts related to natural and environmental resources	Air Quality	Location is within an area in compliance with all air quality standards. Other locations can be considered provided all applicable air quality permitting and control requirements applicable to the area can be achieved.	In attainment for all NAAQS (historically in non-attainment of now-revoked Ozone (O <sub>3</sub> ) NAAQS)	In maintenance rea for the 2015 8-hour O <sub>3</sub> NAAQS and in attainment for all other NAAQS	In maintenance for the 1971 Carbon Monoxide (CO) and 1971 Sulfur Dioxide (SO <sub>2</sub> ) NAAQS and in attainment for all other NAAQS	In maintenance for the 1971 CO NAAQS and in attainment for all other NAAQS
	Cultural Resources	Location is free of cultural resources, or interaction with cultural resources could be avoided, minimized, or mitigated.	None	None	None	None
	Floodplain	Location is outside of 100-year floodplain, or encroachment on floodplain resources could be avoided, minimized, or mitigated.	None	None	None	None
	Noise and Land Use (Compatibility and Encroachment)	Location does not significantly change noise-compatible land use, or impact noise sensitive receptors. All land uses remain compatible and there are no encroachment issues, or compatibility/encroachment can be reconciled.	No compatibility or encroachment issues	No compatibility or encroachment issues	No compatibility or encroachment issues	No compatibility or encroachment issues
	Wetlands	Location is outside of known wetland areas, or impacts to wetland resources could be avoided, minimized, or mitigated.	None	None	None	None
	Threatened/Endangered Species	Location is free of habitat for listed threatened or endangered species, or habitat impacts could be avoided, minimized, or mitigated.	Species with potential to occur on or near base include Indiana bat, northern long-eared bat, tricolored bat, eastern massasauga, and monarch butterfly. Project areas are developed and no suitable habitat exists. No critical habitat exists	Species with potential to occur on or near base include whooping crane, monarch butterfly, Michaux’s sumac, and white fringeless orchid. Populations of gray bat, tri-colored bat, and pink lady slipper (state protected) have been detected on base. Project areas are developed and no suitable habitat exists. No critical habitat exists	Species with potential to occur on or near base include northern long-eared bat, tricolored bat, whooping crane, Higgins eye, monarch butterfly, and rusty patched bumble bee. Project areas are developed and no suitable habitat exists. No critical habitat exists	Species with potential to occur on or near base include gray wolf, eastern black rail, piping plover, greenback cutthroat trout, pallid sturgeon, monarch butterfly, and Ute ladies’-tresses. Project areas are developed and no suitable habitat exists. No critical habitat exists
<u>SS-05 Morale, Welfare, and Readiness:</u> Location provides adequate healthcare, educational, and housing support for personnel and their families	Healthcare, Education, and Housing Facilities and Services Available	As described by parameter.	Yes	Yes	Yes	Yes
<u>SS-06 Cost:</u> Considers IOC facility modification and O&M costs	Facilities Cost	Considers whether capital outlay is required for facility modifications. Lower costs for facility modifications are preferred over higher costs.	\$3,410,000	\$460,000	\$3,500,000	\$2,500,000
	O&M Training Costs/Savings	Considers the amount of training costs required (or savings realized). Lower costs/higher savings are preferred.	\$1,859,770	\$1,859,770	\$1,859,770	\$1,859,770



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Selection Standard	Parameter	Evaluation Factor(s)	Alternative 1 Youngstown ARS	Alternative 2 Dobbins ARB	Alternative 3 Minneapolis-St. Paul ARS	Alternative 4 Peterson SFB
	O&M Manpower Costs/Savings	Considers the amount of manpower costs required (or savings realized). Lower costs/higher savings are preferred.	-\$1,691,272	-\$1,171,163	-\$1,171,015	-\$1,557,338
	Total Net Cost	Considers the total net cost for achieving IOC for a candidate location, represented by facilities and O&M costs less any O&M savings realized. Lower total net costs are preferred.	\$3,578,498	\$1,148,607	\$4,188,755	\$2,802,432

1 Source: U.S. AFRC, 2022a; U.S. AFRC, 2022b; U.S. AFRC, 2022c; U.S. AFRC, 2022d; U.S. AFRC, 2023a; USFWS, 2023a; USFWS, 2022b; USFWS, 2022c; USFWS, 2022d.



## **CHAPTER 3    AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES**

### **3.1    RESOURCES ELIMINATED FROM DETAILED ANALYSIS**

The following resource areas have not been carried forward for separate detailed analysis in this EA because it has been determined that implementation of the Proposed Action at any of the alternative installations would have no environmental impact or negligible environmental impact on these resource areas.

#### **3.1.1    AIRSPACE**

The Proposed Action would not result in new airspace or changes in which the existing airspace is used at any of the alternative installations. Accordingly, there would be no airspace management impacts. Therefore, this resource does not warrant further consideration and is excluded from further analysis.

#### **3.1.2    AESTHETICS AND VISUAL RESOURCES**

The Proposed Action would not result in any obvious modifications to existing landscapes and landforms or other features that attribute to landscape-level aesthetic qualities at any of the alternative installations. Accordingly, there would be impact to visual resources. Therefore, this resource does not warrant further consideration and is excluded from further analysis.

#### **3.1.3    COASTAL ZONE RESOURCES**

Under the requirements and guidance of the Coastal Zone Management Act of 1972, as amended, federal actions that would occur within, or that would directly affect, a coastal zone of a state having an approved state Coastal Zone Management Plan must determine if, and to what extent, coastal zones will be impacted. None of the alternative installations are located within a coastal zone management area. Accordingly, the Proposed Action would not result in direct or significant impact on coastal resources. Therefore, this resource does not warrant further consideration and is excluded from further analysis.

#### **3.1.4    ENVIRONMENTAL JUSTICE**

The Proposed Action would occur entirely on AFRC property and would not require the acquisition of and/or relocation or displacement of any established residential, institutional properties or community businesses; would not result in uncontrolled urban proliferation, or incompatible changes on transportation or traffic patterns, or negative pressure over business and economic activity. The proposed facility and airfield modifications would not result in off-installation impacts to sensitive resources and would not trigger shifts in land use, rapid population growth, or high public service demand. Accordingly, disproportionate effects on environmental justice, low-income populations, or the environmental health and safety of children are unlikely to result from the Proposed Action; therefore, these resources do not warrant further consideration and are excluded from further analysis.



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**3.1.5 FLOODPLAINS**

A review of geographic information system (GIS) floodplain data provided by the alternative installations concluded that the Proposed Action would have no effect on or from floodplains because none of the alternative installation proposed project sites are located in a floodplain. Therefore, this resource does not warrant further consideration and is excluded from further analysis.

**3.1.6 GEOLOGY, SOILS, AND FARMLANDS**

The Proposed Action would not impact geologic formations at any of the alternative installations because it involves minimal construction and ground disturbance and underlying geologic formations would not be disturbed. Additionally, construction and operation of the Proposed Action at any of the alternative installations would not result in a substantial loss of soil. None of the alternative installations have lands identified as farmlands. Accordingly, soils are not given further consideration for protection under the Farmland Protection Policy Act, and a Farmland Conversion Impact Rating Form (AD-1006 Form) is not required. The Proposed Action would result in negligible, direct, short-term, adverse impacts to soils at all of the alternative installations due to soil disturbance associated with limited excavation and/or grading. Therefore, these resources do not warrant further consideration and are excluded from further analysis.

**3.1.7 LAND USE**

The Proposed Action would be consistent with the land use identified at each alternative installation proposed project site. The Proposed Action would not create any compatibility or encroachment issues at any of the alternative installations. Therefore, this resource does not warrant further consideration and is excluded from further analysis.

**3.1.8 SURFACE WATER/GROUNDWATER RESOURCES**

The closest surface water to any of the alternative installation proposed project sites is a drainage ditch located directly southwest of the Youngstown ARS project site. However, the water resource is only an ephemeral drainage ditch, and the Proposed Action would not involve any construction or other activities with the potential to impact water resources. There are no surface water resources within 0.2 miles of any alternative installation proposed project site. Additionally, since the Proposed Action involves minimal construction and ground disturbance, there is little to no potential for activities to intercept groundwater at any alternative installation proposed project site. The AFRC would comply with federal, state, and Air Force regulations with respect to spill prevention management. The Proposed Action would not result in an increase in impervious surfaces or depletion of an aquifer at any alternative installation. Proper compliance with federal, state and Air Force regulations for stormwater management would be followed as well as pollution discharge requirements to prevent off-site erosion or sedimentation impacts. Accordingly, the Proposed Action would have no impact on surface water or groundwater resources at any of the alternative installations. Therefore, these resources do not warrant further consideration and are excluded from further analysis.



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**3.1.9 TRANSPORTATION, INFRASTRUCTURE, AND UTILITIES**

The Proposed Action would not require new transportation facilities or modification of existing facilities/roadways at any of the alternative installations. Civil infrastructure and utilities are in place at all alternative installations to support facility modifications and delivery and operation of the eight C-130J aircraft. Therefore, these resources do not warrant further consideration and are excluded from further analysis.

**3.1.10 WETLANDS**

A review of GIS wetlands data provided by the alternative installations concluded that there are no wetlands present within 0.2 mile of any of the alternative installation proposed project sites. Therefore, the Proposed Action has no potential to impact wetlands. Therefore, this resource does not warrant further consideration and is excluded from further analysis.

**3.2 RESOURCES CONSIDERED IN DETAIL**

The scope of this EA includes an analysis of effects resulting from the implementation of the Proposed Action and alternatives, including the No-Action Alternative. The EA environmental analysis process identifies and discloses potential effects on the natural and human environments. Impacts are identified and disclosed within established Regions of Influence (ROI) for each resource category, and include an analysis of duration (e.g., short term, long term), character (e.g., adverse, beneficial), and significance (e.g., negligible, minor, moderate, significant). Mitigation measures or BMPs to minimize or reduce impacts are identified.

**3.2.1 CUMULATIVE IMPACT ANALYSIS**

Potential cumulative impacts are assessed for each alternative for each resource considered in detail in the following sections. Cumulative impacts to environmental resources result from incremental effects of Proposed Action alternatives when combined with other past, present, and reasonably foreseeable future projects in the ROI. The ROI for cumulative impacts is generally limited to each alternative installation location. Cumulative impacts can result from individually minor, but collectively substantial, actions undertaken over a period of time by various agencies (Federal, state, and local) or individuals. In accordance with NEPA, a discussion of cumulative impacts resulting from projects that have been recently completed or are proposed (or anticipated over the foreseeable future) is required.

A records search was performed to identify specific projects recently completed, currently underway, or planned within the next three to five years within each alternative's ROI. Notably, the scope of cumulative impact analysis includes longer-term facility modifications that could be implemented in the reasonably foreseeable future to achieve Full Operations Capability (FOC) of the recapitalized C-130J mission at each alternative installation. The search was performed to evaluate whether there were any applicable projects which would meet the criteria above for evaluation of cumulative effects. Projects considered in the cumulative impacts assessments are presented for each alternative installation in **Table 3.2-1**.



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**TABLE 3.2-1 PROJECTS CONSIDERED FOR CUMULATIVE IMPACTS ANALYSES**

<b>Project Timeframe</b>	<b>Youngstown ARS (Alternative 1)</b>	<b>Dobbins ARB (Alternative 2)</b>	<b>Minneapolis-St. Paul ARS (Alternative 3)</b>	<b>Peterson SFB (Alternative 4)</b>
Recently Completed Projects		<ul style="list-style-type: none"> <li>- Repair airfield pavements</li> </ul>	<ul style="list-style-type: none"> <li>- Construct Mission Support Group Facility</li> <li>- Construct Aerial Port Facility</li> </ul>	<ul style="list-style-type: none"> <li>- Peterson East electrical distribution upgrades</li> <li>- Demolish Building 1425</li> <li>- Construct athletic fields</li> <li>- Construct fitness center annex</li> <li>- Construct consolidated club and conference center</li> <li>- Construct Shoppette</li> <li>- Relocate North Gate</li> <li>- Construct administrative complex</li> </ul>
Concurrent Projects	<ul style="list-style-type: none"> <li>- Assault Landing Zone Widening</li> </ul>	<ul style="list-style-type: none"> <li>- Renovate care campus</li> <li>- Repair roads and parking base-wide</li> <li>- Renovate Building 827</li> <li>- Renovate Building 838 Bays 1, 2, and 3</li> <li>- Construct new security forces building</li> <li>- Airfield drainage repairs</li> </ul>	<ul style="list-style-type: none"> <li>- Metropolitan Airports Commission 2019-2025 Capital Improvements Program at Minneapolis-St. Paul International Airport</li> </ul>	<ul style="list-style-type: none"> <li>- Expand Building 2 and Building 3</li> <li>- Construct recreational vehicle storage lot</li> <li>- Construct Special Operations Command North Human Performance Training Center</li> <li>- South Command Area Development</li> <li>- Construct 50,000-square-foot building and 20-acre complex</li> <li>- Construct 4,500-square-foot hazardous waste facility and 9-acre complex</li> <li>-Electrical grid upgrades</li> </ul>
Future Projects	<ul style="list-style-type: none"> <li>- Hangar 302 modifications: modify locker rooms, move nose pocket back approximately 3 feet, upgrade building systems (e.g., fire suppression and fall protection)</li> </ul>	<ul style="list-style-type: none"> <li>- Construct new headquarters building</li> <li>- Construct new Logistics Readiness Squadron warehouse</li> <li>- Construct new fitness center</li> <li>- Construct munitions storage</li> <li>- Repair airfield pavements</li> <li>- Hangar 746 modifications: Demolish structure in hangar bay, modify hangar door cutout</li> </ul>	<ul style="list-style-type: none"> <li>- Construct new Logistics Readiness Squadron facility</li> <li>- Demolish Buildings 801, 802, and 803</li> <li>- Hangar 821 modifications: Construct 225-foot by 30-foot eyebrow, add approximately 29,000 square feet of pavement north of hangar</li> </ul>	<ul style="list-style-type: none"> <li>- South Command Area Development</li> <li>- Develop 35-acre lodging facility</li> <li>- Construct 20-foot bay eyebrow to the Hangar 210 right bay</li> <li>- Construct 160-foot by 30-foot eyebrow to Hangar 821 north bay</li> <li>- Upgrade hangar building systems (e.g., fire suppression and fall protection)</li> </ul>

2 Sources: U.S. AFRC, 2020; U.S. AFRC, 2021; U.S. Army Corps of Engineers (USACE), 2022; Department of the Air Force, 2019; U.S. Space Force, 2023; U.S. Air Force, 2018; U.S. AFRC, 2022a;  
3 U.S. AFRC 2022b; U.S. AFRC, 2022c; U.S. AFRC, 2022d.



### **3.3 AIR QUALITY**

Air quality conditions at a given location are a function of several factors including the quantity and type of pollutants emitted locally and regionally, as well as the dispersion rates of pollutants in the region. Primary factors affecting pollutant dispersal include wind speed and direction, atmospheric stability, climate and temperature, and topography.

Air quality is affected by stationary emissions sources (e.g., boilers, emergency generators, and industrial processes), mobile sources (e.g., motor vehicles, construction equipment, and aircraft), and area sources (e.g., vehicle and aircraft fuel transfer, storage, and dispensing). The ROI for air quality is the air quality control region (AQCR) for each alternative installation. Air quality conditions within the ROI are described in terms of the U.S. Air Force's Installation Attainment Status spreadsheet maintained by the Air Force Civil Engineer Center (AFCEC) dated February 2023 and the relationship to air quality standards described in **Section 3.3.1**.

#### **3.3.1 NATIONAL AMBIENT AIR QUALITY STANDARDS**

Under the Clean Air Act (CAA) and its amendments, the U.S. Environmental Protection Agency (USEPA) identifies air pollutants that cause or contribute to the endangerment of human health and or environmental welfare and establishes air quality "criteria" that guide the establishment of air quality standards to regulate these pollutants (42 U.S.C. Sections 7408 - 7409). To date, the USEPA has established such criteria for six air pollutants: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter less than or equal to 2.5 micrometers in diameter (PM<sub>2.5</sub>), particulate matter less than or equal to ten micrometers in diameter (PM<sub>10</sub>), and sulfur dioxide (SO<sub>2</sub>). As a result, the EPA created NAAQS meant to safeguard public health (i.e., primary NAAQS) and environmental welfare (i.e., secondary NAAQS). Current NAAQS are presented in **Table 3.3-1**.

USEPA and state/local air quality control agencies monitor and evaluate outdoor air quality for compliance with the NAAQS. Areas where monitored outdoor air concentrations are below the NAAQS are considered in attainment of that NAAQS. If sufficient ambient air monitoring data are not available to decide, the area is instead deemed attainment/unclassifiable. Areas where monitored outdoor air concentrations exceed the NAAQS are designated by the USEPA as nonattainment areas. Nonattainment designations for some pollutants (e.g., O<sub>3</sub>) can be further classified based on the severity of the NAAQS exceedances. Lastly, areas that have historically exceeded the NAAQS, but have since instituted controls and programs that have successfully remedied these exceedances are known as maintenance areas.



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**TABLE 3.3-1 NATIONAL AMBIENT AIR QUALITY STANDARDS**

Pollutant	Averaging Time	Level	Form
CO	8-hour	9 ppm	Not to be exceeded more than once per year
	1-hour	35 ppm	
Pb	Rolling 3-month average	0.15 µg/m <sup>3</sup>	Not to be exceeded
NO <sub>2</sub>	1-hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, 3-year average
	Annual	53 ppb	Annual mean
O <sub>3</sub>	8-hour	0.070 ppm	Annual fourth-highest daily maximum 8-hour concentration, 3-year average
PM	<sup>PM</sup> <sub>2.5</sub> Annual (primary)	12 µg/m <sup>3</sup>	Annual mean, 3-year average
	<sup>PM</sup> <sub>2.5</sub> Annual (secondary)	15 µg/m <sup>3</sup>	Annual mean, 3-year average
	<sup>PM</sup> <sub>2.5</sub> 24-hour	35 µg/m <sup>3</sup>	98th percentile, 3-year average
	<sup>PM</sup> <sub>10</sub> 24-hour	150 µg/m <sup>3</sup>	Not to be exceeded more than once per year, 3-year average
SO <sub>2</sub>	1-hour	75 ppb	99th percentile of 1-hour daily maximum concentrations, 3-year average
	3-hour	0.5 ppm	Not to be exceeded more than once per year

Notes: ppb = parts per billion; ppm = parts per million; µg/m<sup>3</sup> = micrograms per cubic meter of air.

Source: USEPA, 2023a

### 3.3.1.1 Clean Air Act Conformity

The General Conformity Rule of the Federal CAA mandates that the Federal government does not engage, support, or provide financial assistance for licensing or permitting, or approve any activity not conforming to the most recent USEPA-approved State Implementation Plan (SIP). This rule applies to all Federal actions except highway and transit actions which are instead regulated by the Transportation Conformity Rule. The rule considers air pollutant emissions associated with actions that are Federally funded, licensed, permitted, or approved, and ensures that such emissions do not cause or contribute to air quality degradation, thus preventing the achievement of state and Federal air quality goals. The Air Force's EIAP for air quality promulgated at 32 CFR 989.30 requires that NEPA documents such as this EA address General Conformity applicability.

For Federal actions located in areas that are in nonattainment of a NAAQS or designated as maintenance, annual net emissions for a Proposed Action are compared against General Conformity de minimis thresholds, representing numerical thresholds under which a project is not considered to cause or contribute to continued violation of the NAAQS in nonattainment/maintenance areas, and therefore General Conformity is not further applicable. Unlike nonattainment or maintenance criteria pollutants, General Conformity de minimis levels have not been established for attainment criteria pollutant emissions. In areas the U.S. Air Force considers as clearly attainment (i.e., where all criteria pollutant concentrations are currently less than 95 percent of applicable NAAQS), the insignificance indicators are 250 tons per year (i.e., the USEPA's Prevention of Significant Deterioration threshold), except for Pb, which is 25 tons per year.



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**3.3.2 AFFECTED ENVIRONMENT**

**3.3.2.1 Alternative 1 – Youngstown ARS**

The ROI for Alternative 1 is the Northwest Pennsylvania-Youngstown Interstate (Ohio, Pennsylvania) AQCR. Trumbull County, Ohio, which contains Youngstown ARS, is currently considered in attainment of all NAAQS. However, Trumbull County historically was in non-attainment of now-revoked O<sub>3</sub> NAAQS (U.S. Air Force, 2023b; USEPA, 2023b). CY 2021 stationary source emissions from AFRC activities at Youngstown ARS are presented in **Table 3.3-2**.

**TABLE 3.3-2 CY 2021 EMISSIONS AT EACH INSTALLATION**

Alternative	Emissions (Tons Per Year)						
	VOC	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM 10	PM 2.5	Pb
Alternative 1 – Youngstown ARS	5.33	12.02	11.61	0.09	1.16	1.15	<0.01
Alternative 2 – Dobbins ARB	1.43	1.91	1.72	0.01	0.17	0.17	--
Alternative 3 – Minneapolis-St. Paul ARS	8.66	9.97	11.21	0.08	1.01	1.00	--
Alternative 4 – Peterson SFB	20.11	13.17	9.3	0.1	1.65	1.36	--

Notes: VOC = Volatile Organic Compounds; NO<sub>x</sub> = Oxides of Nitrogen  
Source: Air Program Information Management System, 2022a, 2022b, 2023a, 2023b.

**3.3.2.2 Alternative 2 – Dobbins ARB**

The ROI for Alternative 2 is the Metropolitan Atlanta Intrastate AQCR. Cobb County, Georgia, which contains Dobbins ARB, was redesignated from marginal nonattainment to maintenance of the 2015 8-hour O<sub>3</sub> NAAQS on 22 November 2022 and is in attainment of all other NAAQS (U.S. Air Force, 2023b; USEPA, 2023b). CY 2021 stationary source emissions from AFRC activities at Dobbins ARB are presented in **Table 3.3-2**.

**3.3.2.3 Alternative 3 – Minneapolis-St. Paul ARS**

The ROI for Alternative 3 is the Minneapolis-St. Paul Intrastate AQCR. Hennepin County, Minnesota, which contains Minneapolis-St. Paul ARS, is currently considered in maintenance of the 1971 CO and 1971 SO<sub>2</sub> NAAQS and in attainment of all other NAAQS (U.S. Air Force, 2023b; USEPA, 2023b). CY 2021 stationary source emissions from AFRC activities at Minneapolis-St. Paul ARS are presented in **Table 3.3-2**.

**3.3.2.4 Alternative 4 – Peterson SFB**

The ROI for Alternative 4 is the Colorado Springs, Colorado AQCR. El Paso County, Colorado, which contains Peterson SFB, is currently considered in maintenance of the 1971 CO NAAQS and in attainment of all other NAAQS (U.S. Air Force, 2023b; USEPA, 2023b). CY 2021 stationary source emissions from AFRC activities at Peterson SFB are presented in **Table 3.3-2**.

**3.3.3 ENVIRONMENTAL CONSEQUENCES**

The number, distribution, and location of C-130 operations would not change with the Proposed Action compared to the No-Action Alternative. **Table 3.3-3** compares emissions from one Landing/Take-off Cycle (LTO) of the C-130J compared to the C-130H using the U.S. Air Force's Air Conformity Applicability



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Model (ACAM) (Version 5.0.18a). An LTO is defined as one arrival and one departure operation of a given aircraft. As shown, C-130 emissions of CO, Volatile Organic Compounds (VOC), Sulfur Oxides (SO<sub>x</sub>), and carbon dioxide equivalent (CO<sub>2</sub>e) gases would decrease with the C-130J compared to the C-130H. On the other hand, emissions of nitrogen oxides (NO<sub>x</sub>) PM<sub>10</sub> and PM<sub>2.5</sub> would increase. Refer to the forthcoming sections for a discussion of these emissions changes relative to each alternative.

**TABLE 3.3-3 C-130 EMISSIONS CHANGES PER LTO**

Pollutant	C-130 H (ton/year)	C-130 J (ton/year)	Change
VOC	0.334	0.001	-0.333
NO <sub>x</sub>	0.250	0.296	+0.046
CO	0.523	0.094	-0.429
SO <sub>x</sub>	0.040	0.033	-0.007
PM 10	0.028	0.074	+0.046
PM 2.5	0.025	0.066	+0.041
Pb	0.000	0.000	+0.000
NH <sub>3</sub>	0.000	0.000	+0.000
CO <sub>2</sub> e	121.90	99.40	-22.50

Notes:

1 VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, Pb, and NH<sub>3</sub> emission rates = Tons per year. CO<sub>2</sub>e =

Metric tons per year CO<sub>2</sub>e = Carbon Dioxide Equivalent

Source: ACAM (version 5.0.18a), run on 17 April 2023

The Proposed Action would result in a temporary increase in emissions related to construction activities. The manpower decrement associated with recapitalization would result in an ongoing annual decrease in emissions from personnel-related activities such as daily commuting once all of the aircraft are replaced. After construction is complete, the action will reach a “steady state” (i.e., once the action is fully implemented and operational with no further net change in emissions).

Current U.S. Air Force guidance provides methodology for performing an Air Quality EIAP Level II, Quantitative Assessment, which is an insignificance assessment that can determine if an action poses an insignificant impact on air quality (Solutio Environmental, 2019). An air quality impact is considered insignificant if the action does not cause or contribute to exceedance of one or more of the NAAQS. The U.S. Air Force defines “insignificance indicators” for each criteria pollutant according to current air quality conditions to determine whether potential impacts would be significant.

Construction emissions were estimated for each alternative using the ACAM (Version 5.0.18a). The Record of Conformity Analysis (ROCA) for each alternative is located in **Appendix B1**. These emissions are “netted” on an annual basis. All construction activities for near-term improvements are expected to take place in Calendar Year (CY) 2024. Manpower decrements are expected to occur by CY 2026, after all eight C-130J aircraft are delivered. Construction and steady state emissions are disclosed for each alternative in the following sections.

BMPs would be implemented during construction to reduce potential impacts on air quality, including having no visible emissions such as dust or wind-blown soil. These control measures could include applying water or using other stabilization measures on areas of bare soil or soil piles and covering dump trucks that transport materials that could become airborne. Additionally, contractors would be required to maintain construction equipment in accordance with manufacturers’ specifications to reduce exhaust



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emissions. The nature and magnitude of this Proposed Action are expected to create only localized air quality impacts to the area surrounding each alternative site within its ROI. The following air quality impact analyses follow the EIAP Air Quality Guidelines for criteria pollutants and GHG emissions (Solutio Environmental, 2019).

**3.3.3.1 Alternative 1 – Youngstown ARS**

Trumbull County, Ohio is currently considered in attainment of all NAAQS. However, because the region was historically in non-attainment of now-revoked O<sub>3</sub> NAAQS, the General Conformity de minimis thresholds of 100 tons per year for each O<sub>3</sub> precursor (NO<sub>x</sub> and VOC) are applied as insignificance indicators. (Solutio Environmental, 2020). The insignificance indicator for all other criteria pollutants except Pb is 250 tons per year.

As shown on **Table 3.3-3**, NO<sub>x</sub> emissions could increase by 0.046 tons per LTO. NO<sub>x</sub> emissions would remain below the 100 tons per year de minimis threshold if annual LTOs for Alternative 1 were 2,174 or less. Also, PM<sub>10</sub> emissions could increase by 0.046 tons per LTO and PM<sub>2.5</sub> emissions could increase by 0.041 tons per LTO. Because the insignificance indicator for PM<sub>10</sub> and PM<sub>2.5</sub> is 250 tons per year, emissions would remain insignificant if annual LTOs for Alternative 1 were 5,435 and 6,098 or less, respectively. Based on this information and typical C-130 operations at this location, it is unlikely that the above-referenced indicators would be exceeded and therefore air quality impacts would be insignificant.

Minor, short-term, direct, adverse impacts on overall air quality would occur during construction (CY 2024). Construction emissions would include exhaust emissions from construction equipment used for establishing the composite material maintenance shop and associated installation of a fume vent system, enclosing an interior area of Building 302, and demolition of the elevated mezzanine in the hangar nose pocket of Building 295, as well as construction employee commute activities. Fugitive VOC emissions would result from pavement restriping activities. No long-term operational emissions increases would result from Alternative 1. By 2026 (steady state), manpower decrements would occur, resulting in an overall decrease in ongoing personnel-related emissions. **Table 3.3-4** summarizes construction and operational emissions changes under Alternative 1, as calculated using ACAM.

**TABLE 3.3-4 EMISSIONS CHANGES – YOUNGSTOWN ARS**

Pollutant	Construction Emissions (Ton/Year)	Steady State Emissions (Ton/Year)	Insignificance Indicator	Insignificance Indicator Exceeded?	Insignificance Indicator Exceeded?
	2024	2026	(Ton/Year)	2024	2026
Not in a regulatory area					
VOC	3.503	-0.015	100	No	No
NO <sub>x</sub>	0.122	-0.01	100	No	No
CO	0.2	-0.219	250	No	No
SO <sub>x</sub>	0	0	250	No	No
PM 10	0.007	0	250	No	No
PM 2.5	0.004	0	250	No	No
Pb	0	0	25	No	No
NH <sub>3</sub>	0	-0.002	250	No	No
CO <sub>2</sub> e	44.9	-21.5	75,000	No	No

Notes:

1 VOC, NO<sub>x</sub>, CO, SO<sub>x</sub> PM<sub>10</sub>, PM<sub>2.5</sub>, Pb, and NH<sub>3</sub> emission rates = Tons per year. CO<sub>2</sub>e = Metric tons per year



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CO<sub>2</sub>e = Carbon Dioxide Equivalent  
Source: ACAM (version 5.0.18a), run on 17 April 2023

Based on the estimated emissions listed in **Table 3.3-3 and Table 3.3-4**, the emissions from construction and operational activities associated with Alternative 1 would be below the U.S. Air Force insignificance indicator for all criteria pollutants. Therefore, construction and operational air quality impacts under Alternative 1 would be insignificant.

Because Trumbull County, Ohio is considered in attainment of the NAAQS for all pollutants (U.S. Air Force, 2023b; USEPA 2023b), the General Conformity rule does not apply, and no further analysis is required.

### **3.3.3.2 Alternative 2 – Dobbins ARB**

Because Cobb County, Georgia is in maintenance of the 2015 8-hour O<sub>3</sub> NAAQS, both the General Conformity de minimis thresholds and the insignificance indicators for the O<sub>3</sub> precursors NO<sub>x</sub> and VOC are 100 tons per year each. Cobb County is in attainment of all other NAAQS; therefore, the insignificance indicator for the other criteria pollutants except Pb is 250 tons per year.

As shown on **Table 3.3-3**, NO<sub>x</sub> emissions could increase by 0.046 tons per LTO. NO<sub>x</sub> emissions would remain below the 100 tons per year de minimis threshold if annual LTOs for Alternative 2 were 2,174 or less. Also, PM<sub>10</sub> emissions could increase by 0.046 tons per LTO and PM<sub>2.5</sub> emissions could increase by 0.041 tons per LTO. Because the insignificance indicator for PM<sub>10</sub> and PM<sub>2.5</sub> is 250 tons per year, emissions would remain insignificant if annual LTOs for Alternative 2 were 5,435 and 6,098 or less, respectively. Based on this information and typical C-130 operations at this location, it is unlikely that the above-referenced indicators would be exceeded and therefore air quality impacts would be insignificant.

Minor, short-term, direct, adverse impacts on overall air quality would occur during construction (CY 2024). Construction emissions would include exhaust emissions from construction equipment used for establishing the composite material maintenance shop and associated installation of a fume vent system, minor dust generation from relocating mooring points, and exhaust emissions from construction employee commute activities. No long-term operational emissions increases would result from Alternative 2. By 2026 (steady state), manpower decrements would occur, resulting in an overall decrease in ongoing personnel-related emissions. **Table 3.3-5** summarizes construction and operational emissions changes under Alternative 2, as calculated using ACAM.

**TABLE 3.3-5 EMISSIONS CHANGES – DOBBINS ARB**

Pollutant	Construction Emissions (Ton/Year)	Steady State Emissions (Ton/Year)	Insignificance Indicator	Insignificance Indicator Exceeded?	Insignificance Indicator Exceeded?
	2024	2026	(Ton/Year)	2024	2026
Atlanta, GA					
VOC	0.022	-0.011	100	No	No
NO <sub>x</sub>	0.117	-0.007	100	No	No
CO	0.183	-0.153	250	No	No
SO <sub>x</sub>	0	0	250	No	No
PM 10	0.006	0	250	No	No



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Pollutant	Construction Emissions (Ton/Year)	Steady State Emissions (Ton/Year)	Insignificance Indicator	Insignificance Indicator Exceeded?	Insignificance Indicator Exceeded?
	2024	2026	(Ton/Year)	2024	2026
<b>PM 2.5</b>	0.004	0	250	No	No
<b>Pb</b>	0	0	25	No	No
<b>NH3</b>	0	-0.001	250	No	No
<b>CO2e</b>	41.7	-15.2	75,000	No	No

Notes:

1 VOC, NO<sub>x</sub>, CO, SO<sub>x</sub> PM<sub>10</sub>, PM<sub>2.5</sub>, Pb, and NH<sub>3</sub> emission rates = Tons per year. CO<sub>2</sub>e = Metric tons per year

CO<sub>2</sub>e = Carbon Dioxide Equivalent

Source: ACAM (version 5.0.18a), run on 17 April 2023

Based on the estimated emissions listed in **Table 3.3-3 and Table 3.3-5**, the emissions from construction and operational activities associated with Alternative 2 would be below the U.S. Air Force insignificance indicator for all criteria pollutants. Therefore, construction and operational air quality impacts under Alternative 2 would be insignificant.

Cobb County, Georgia was historically in non-attainment, and was redesignated to maintenance of the O<sub>3</sub> NAAQS in 2022 (U.S. Air Force, 2023b; USEPA, 2023b). Therefore, the State of Georgia is required to develop an emissions inventory and attainment demonstration SIP for the region, and the General Conformity Rule applies to Alternative 2. However, Alternative 2 would generate emissions well below General Conformity de minimis thresholds for the O<sub>3</sub> precursors NO<sub>x</sub> and VOC, and no further analysis is warranted.

### **3.3.3.3 Alternative 3 – Minneapolis-St. Paul ARS**

Because Hennepin County, Minnesota is in maintenance of the 1971 CO and 1971 SO<sub>2</sub> NAAQS, both the General Conformity de minimis thresholds and the insignificance indicators for CO and SO<sub>x</sub> are 100 tons per year each. Hennepin County is clearly in attainment of all other NAAQS; therefore, the insignificance indicator for the other criteria pollutants except Pb is 250 tons per year.

As shown on **Table 3.3-3**, NO<sub>x</sub> and PM<sub>10</sub> emissions could increase by 0.046 tons per LTO. NO<sub>x</sub> and PM<sub>10</sub> emissions would remain below the 250 tons per year insignificance threshold if annual LTOs for Alternative 3 were 5,435 or less. Also, PM<sub>2.5</sub> emissions could increase by 0.041 tons per LTO. Because the insignificance indicator for PM<sub>2.5</sub> is 250 tons per year, emissions would remain insignificant if annual LTOs for Alternative 3 were 6,098 or less. Based on this information and typical C-130 operations at this location, it is unlikely that the above-referenced indicators would be exceeded and therefore air quality impacts would be insignificant.

Minor, short-term, direct, adverse impacts on overall air quality would occur during construction (CY 2024). Construction emissions would include exhaust emissions from construction equipment used for establishing the composite material maintenance shop, relocating the sheet metal shop, and Building 870 extension construction. Minor dust generation would result from excavation and grading activities associated with Building 870 expansion and mooring point installation. Airfield ramp restriping would generate fugitive VOC emissions. Vehicle exhaust emissions would result from construction employee commute activities. No long-term operational emissions increases would result from Alternative 3. By



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2026 (steady state), manpower decrements would occur, resulting in an overall decrease in ongoing personnel-related emissions. **Table 3.3-6** summarizes construction and operational emissions changes under Alternative 3, as calculated using ACAM.

**TABLE 3.3-6 EMISSIONS CHANGES – MINNEAPOLIS-ST. PAUL ARS**

Pollutant	Construction Emissions (Ton/Year)	Steady State Emissions (Ton/Year)	Insignificance Indicator	Insignificance Indicator Exceeded?	Insignificance Indicator Exceeded?
	2024	2026	(Ton/Year)	2024	2026
Minneapolis-St Paul, MN					
VOC	2.359	-0.011	250	No	No
NO <sub>x</sub>	0.204	-0.008	250	No	No
CO	0.326	-0.165	100	No	No
SO <sub>x</sub>	0.001	0	100	No	No
PM 10	0.01	0	250	No	No
PM 2.5	0.007	0	250	No	No
Pb	0	0	25	No	No
NH <sub>3</sub>	0	-0.001	250	No	No
CO <sub>2e</sub>	74.9	-15.1	75,000	No	No

Notes:

1 VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, Pb, and NH<sub>3</sub> emission rates = Tons per year. CO<sub>2e</sub> = Metric tons per year

CO<sub>2e</sub> = Carbon Dioxide Equivalent

Source: ACAM (version 5.0.18a), run on 17 April 2023

Based on the estimated emissions listed in **Table 3.3-3** and **Table 3.3-6**, the emissions from construction and operational activities associated with Alternative 3 would be below the U.S. Air Force insignificance indicator for all criteria pollutants. Therefore, construction and operational air quality impacts under Alternative 3 would be insignificant.

Hennepin County, Minnesota is in maintenance of the 1971 CO and 1971 SO<sub>2</sub> NAAQS (U.S. Air Force, 2023b; USEPA, 2023b). Therefore, the State of Minnesota is required to develop an emissions inventory and attainment demonstration SIP for the region, and the General Conformity Rule applies to Alternative 3. However, Alternative 3 would generate emissions well below General Conformity de minimis thresholds for the CO and SO<sub>x</sub>, and no further analysis is warranted.

#### **3.3.3.4 Alternative 4 – Peterson SFB**

Because El Paso County is in marginal nonattainment of the 1971 CO NAAQS, both the General Conformity de minimis threshold and the insignificance indicator for CO is 100 tons per year. El Paso County, Colorado is in attainment of all other NAAQS; therefore, the insignificance indicator for the other criteria pollutants except Pb is 250 tons per year.

As shown on **Table 3.3-3**, NO<sub>x</sub> and PM<sub>10</sub> emissions could increase by 0.046 tons per LTO. NO<sub>x</sub> and PM<sub>10</sub> emissions would remain below the 250 tons per year insignificance threshold if annual LTOs for Alternative 4 were 5,435 or less. Also, PM<sub>2.5</sub> emissions could increase by 0.041 tons per LTO. Because the insignificance indicator for PM<sub>2.5</sub> is 250 tons per year, emissions would remain insignificant if annual LTOs for Alternative 3 were 6,098 or less. Based on this information and typical C-130 operations at this location, it is unlikely that the above-referenced indicators would be exceeded and therefore air quality impacts would be insignificant.



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Minor, short-term, direct, adverse impacts on overall air quality would occur during construction (CY 2024). Construction emissions would include exhaust emissions from construction equipment used for establishing the composite material maintenance shop and Building 216 expansion construction. Minor dust generation would result from excavation and grading activities associated with Building 216 expansion and mooring point installation. Airfield ramp restriping would generate fugitive VOC emissions. Vehicle exhaust emissions would result from construction employee commute activities. No long-term operational emissions increases would result from Alternative 4. By 2026 (steady state), manpower decrements would occur, resulting in an overall decrease in ongoing personnel-related emissions. **Table 3.3-7** summarizes construction and operational emissions changes under Alternative 4, as calculated using ACAM.

Based on the estimated emissions listed in **Table 3.3-3** and **Table 3.3-7**, the emissions from construction and operational activities associated with Alternative 4 would be below the U.S. Air Force insignificance indicator for all criteria pollutants. Therefore, construction and operational air quality impacts under Alternative 4 would be insignificant.

El Paso County, Colorado is in non-attainment of the CO NAAQS (U.S. Air Force, 2023b; USEPA, 2023b). Therefore, the State of Colorado is required to develop an emissions inventory and attainment demonstration SIP for the region, and the General Conformity Rule applies to Alternative 4. However, Alternative 4 would generate emissions well below General Conformity de minimis threshold for CO, and no further analysis is warranted.

**TABLE 3.3-7 EMISSIONS CHANGES – PETERSON SFB**

Pollutant	Construction Emissions (Ton/Year)	Steady State Emissions (Ton/Year)	Insignificance Indicator	Insignificance Indicator Exceeded?	Insignificance Indicator Exceeded?
	2024	2026	(Ton/Year)	2024	2026
Colorado Springs, CO					
VOC	3.516	-0.014	250	No	No
NO <sub>x</sub>	0.189	-0.009	250	No	No
CO	0.298	-0.187	100	No	No
SO <sub>x</sub>	0.001	0	250	No	No
PM <sub>10</sub>	0.014	0	250	No	No
PM <sub>2.5</sub>	0.007	0	250	No	No
Pb	0	0	25	No	No
NH <sub>3</sub>	0	-0.001	250	No	No
CO <sub>2</sub> e	68.9	-19.7	75,000	No	No

Notes:

1 VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, Pb, and NH<sub>3</sub> emission rates = Tons per year. CO<sub>2</sub>e = Metric tons per year

CO<sub>2</sub>e = Carbon Dioxide Equivalent

Source: ACAM (version 5.0.18a), run on 17 April 2023

### **3.3.4 CUMULATIVE EFFECTS**

Overall, the four alternatives under consideration could result in minor cumulative effects on air quality in conjunction with past, present, and reasonably foreseeable future projects within the cumulative effects ROI established for this EA (**Table 3.2-1**). Of the future projects, FOC facility requirements for the C-130J mission at each installation, if chosen, have been preliminarily identified as a result of site surveys completed for the recapitalization action (U.S. AFRC, 2022a; U.S. AFRC, 2022b; U.S. AFRC, 2022c; U.S. AFRC, 2022d; U.S. AFRC, 2023a). Although the details and timeline for these requirements have not been



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completely determined/confirmed, sufficient information is available to preliminarily estimate emissions associated with FOC implementation at each installation. This supplemental analysis is included for disclosure purposes in **Appendix B2** and shows that FOC construction and operations activities are below the Air Force's insignificance indicators.

**3.3.5 NO-ACTION ALTERNATIVE**

Under the No-Action Alternative, C-130H recapitalization would not occur at any of the alternative installation locations, and construction activities and related emissions associated with the Proposed Action would not occur. Ongoing emissions decreases associated with manpower decrements would not occur. Therefore, there would be no significant impacts to air quality associated with the No-Action Alternative.

**3.4 BIOLOGICAL RESOURCES**

Biological resources addressed in this EA consist of vegetation, wildlife, and special status species. Special status species relevant to this EA are those protected under the federal Endangered Species Act of 1973 (ESA), Bald and Golden Eagle Protection Act of 1940, Migratory Bird Treaty Act of 1918, or under applicable state laws or regulations. The DoD has developed a Memorandum of Understanding (MOU) with the USFWS in accordance with EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, to promote the conservation of migratory bird populations.

The Sikes Act Improvement Act of 1997, 16 U.S.C. § 670a et seq., as amended, requires federal military installations with significant natural resources to develop an Integrated Natural Resource Management Plan (INRMP). The INRMP outlines long-term plans to manage and conserve resources within the installation, and documents activities and required steps to comply with applicable federal statutes and regulations while supporting ongoing mission activities. Since INRMPs are installation-specific, the goals, objectives, management programs, and other information contained within these documents can vary based on the natural resource conditions at the installation. Youngstown ARS and Minneapolis-St. Paul ARS have both been designated as Category II installations due to the absence of "significant natural resources" present at the installation, and are exempt from developing complete INRMPs. Dobbins ARB and Peterson SFB both maintain complete INRMPs.

The Air Force reviewed the potential for the Proposed Action alternatives to affect federally listed threatened or endangered species. The Air Force's documentation of its effect determinations for federally listed species is provided in **Appendix C**.

The biological resources ROI established for this EA includes the vegetation present within the direct project area for each alternative installation (See **Figure 2.3-1, Figure 2.3-2, Figure 2.3-3, and Figure 2.3-4**), wildlife present in the project area or within 0.5 mile of the project area boundary, and aquatic resources present in the project area or downstream of the project area within 0.5 mile of the project area.



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**3.4.1 AFFECTED ENVIRONMENT**

**3.4.1.1 Alternative 1 – Youngstown ARS**

**Vegetation:** Youngstown ARS is composed of developed areas. However, a woodland forest consisting of approximately 32 acres is also located on the installation approximately 0.3 mile east of the project area (see **Figure 3.4-1**).

Historically, the vegetation on and around Youngstown ARS was a mixed deciduous forest community. The woodland forest retains elements of the mixed deciduous forest association; however, the floristic composition of grasses, forbs, shrubs, and trees has changed due to past disturbances at the installation (Youngstown ARS, 2021). The disturbances include past farming and timber activities as well as disturbances due to airport and Youngstown ARS construction and maintenance. Non-native species, including noxious weeds, are managed at Youngstown ARS in accordance with the installation's Integrated Pest Management Plan (IPMP) (Youngstown ARS, 2021).

The extant 32-acre woodland forest is primarily a monotypic, even-aged stand of red maple (*Acer rubrum*). Remnant components of a mixed deciduous forest within the woodland area include red maple, beech (*Fagus* sp.), oak (*Quercus* sp.), elm (*Ulmus* sp.), and black cherry (*Prunus serotina*) (Youngstown ARS, 2021). Softwood components of the Youngstown ARS woodland include cottonwood (*Populus* sp.), sweet gum (*Liquidambar styraciflua*), and white pine (*Pinus strobus*) (Youngstown ARS, 2021).

**Wildlife:** There is limited habitat available for wildlife on Youngstown ARS. Known wildlife on the installation includes raccoons (*Procyon lotor*), western gray squirrels (*Sciurus griseus*), eastern cottontail rabbits (*Sylvilagus floridanus*), white-tailed deer (*Odocoileus virginianus*), groundhogs (*Marmota monax*), and red foxes (*Vulpes vulpes*) (Youngstown ARS, 2021). Although the diversity of wildlife is enhanced by the expanses of forest and fields surrounding the installation, the lack of available habitat and presence of military activities on the installation limit populations of these species on the installation. Additionally, the presence of security fencing around the installation prevents larger species from accessing the installation. Limited aquatic habitat is present at Youngstown ARS; however, none occurs within the ROI, and no fish or amphibians have been documented at the installation (Youngstown ARS, 2021).

Youngstown ARS maintains and implements a Bird/Wildlife Aircraft Strike Hazard (BASH) Plan to control wildlife that might pose a strike hazard to aircraft at the installation. BASH efforts described within the INRMP consist exclusively of grass cutting to minimize available habitat (Youngstown ARS, 2021).

**Special Status Species:** The USFWS IPaC online system was accessed on 17 May 2023 to request an Official Species List to identify federally listed species protected under the ESA with the potential to occur on or within the Proposed Action project area ROI. IPaC identified three federally listed threatened or endangered species, one proposed endangered species, and one candidate species within the Youngstown ARS installation boundary (**Table 3.4-1**). Consultation with the USFWS under Section 7 of the ESA is not required for the federally listed candidate species (the monarch butterfly [*Danaus plexippus*]). There are no critical habitats on the installation (USFWS, 2023a).



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FIGURE 3.4-1 YOUNGSTOWN ARS FOREST AREAS





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**TABLE 3.4-1 FEDERALLY LISTED SPECIES WITH POTENTIAL TO OCCUR AT YOUNGSTOWN  
ARS**

Common Name	Scientific Name	Federal Status	Suitable Habitat
<b>Mammals</b>			
Northern long-eared bat	<i>Myotis septentrionalis</i>	E	Hibernates in caves and mines during winter and roosts in either hibernacula or underneath bark or in cavities or crevices of trees during the summer (USFWS, 2015).
Tricolored bat	<i>Perimyotis subflavus</i>	PE	Roost among live and dead leaf clusters of live or recently dead hardwood trees during the non-hibernating season. Hibernates in caves and mines during winter (USFWS, 2023b).
Indiana bat	<i>Myotis sodalist</i>	E	Hibernates in caves and mines during winter. Summer habitat includes roost trees that are within canopy gaps in a forest, in a fence line, or along a wooded edge. Riparian zones, wooded wetlands, and uplands may all have roost trees (USFWS, 2023c).
<b>Reptiles</b>			
Eastern Massasauga (rattlesnake)	<i>Sistrurus catenatus</i>	T	Inhabits wet prairies, marshes, and low areas along rivers and lakes (USFWS, 2016).
<b>Insects</b>			
Monarch butterfly	<i>Danaus plexippus</i>	C	Monarchs in North America undergo long-distance migration between summer and overwintering sites. Adult monarchs are opportunistic nectar feeders and will gather nectar from any flowers near their migration path (Cary and DeLay, 2016). Monarch caterpillars must feed on milkweed, which often grows in previously disturbed areas, in fields, and near roadsides.

Notes: E – Endangered; PE – Proposed Endangered; T – Threatened; C – Candidate

In addition to the federally listed threatened and endangered (T&E) species identified in **Table 3.4-1**, IPaC also identified seven migratory Birds of Conservation Concern (BCCs) with the potential to occur within the ROI. The breeding season for the seven identified species spans from March to September (USFWS, 2023a). While not a BCC, the Bald eagle (*Haliaeetus leucocephalus*) was also identified as a sensitive species located in the ROI.

A threatened or endangered species field survey has not been conducted at Youngstown ARS since 1996. The 1996 survey was performed to identify the actual or potential presence of federal and state listed threatened or endangered species on base. No threatened or endangered species were identified during the survey (Youngstown ARS, 2021). A scoping letter was sent to the Ohio Department of Natural Resources on 30 March 2023, requesting information on potential areas of environmental impact (**Appendix A**). Youngstown ARS is exempt from developing a complete INRMP, but maintains a partial INRMP focused on general land, vegetation, wildlife, and pollution management (Youngstown ARS, 2021).



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**3.4.1.2 Alternative 2 – Dobbins ARB**

**Vegetation:** Dobbins ARB and surrounding areas are primarily urban and suburban. Approximately one-third of Dobbins ARB has impervious surfaces, while nearly half the base is landscaped or maintained grasslands (U.S. Air Force, 2023c). The grasslands and impervious surfaces are found primarily around the airfield. The landscaped areas are dominated by a variety of herbaceous and woody shrubs and trees, including some invasive plants (U.S. Air Force, 2023c). Native vegetation is dominant within the forested area, although some non-native plants are present as well (U.S. Air Force, 2023c). Non-native species, including noxious weeds, are managed at Dobbins ARB in accordance with the installation's IPMP (U.S. Air Force, 2023c).

Most of the forested area documented on Dobbins ARB is dominated by mixed stands of loblolly pine (*Pinus taeda*) and tulip poplar (*Liriodendron tulipifera*) in various stages of succession (U.S. Air Force, 2023c). Due to past development and forest management, pine and pine-hardwood forests make up most of the installation's forests and occur on 380 of the 480 acres of forest, with hardwoods and riparian forests making up the other 100 acres (see **Figure 3.4-2**) (U.S. Air Force, 2023c).

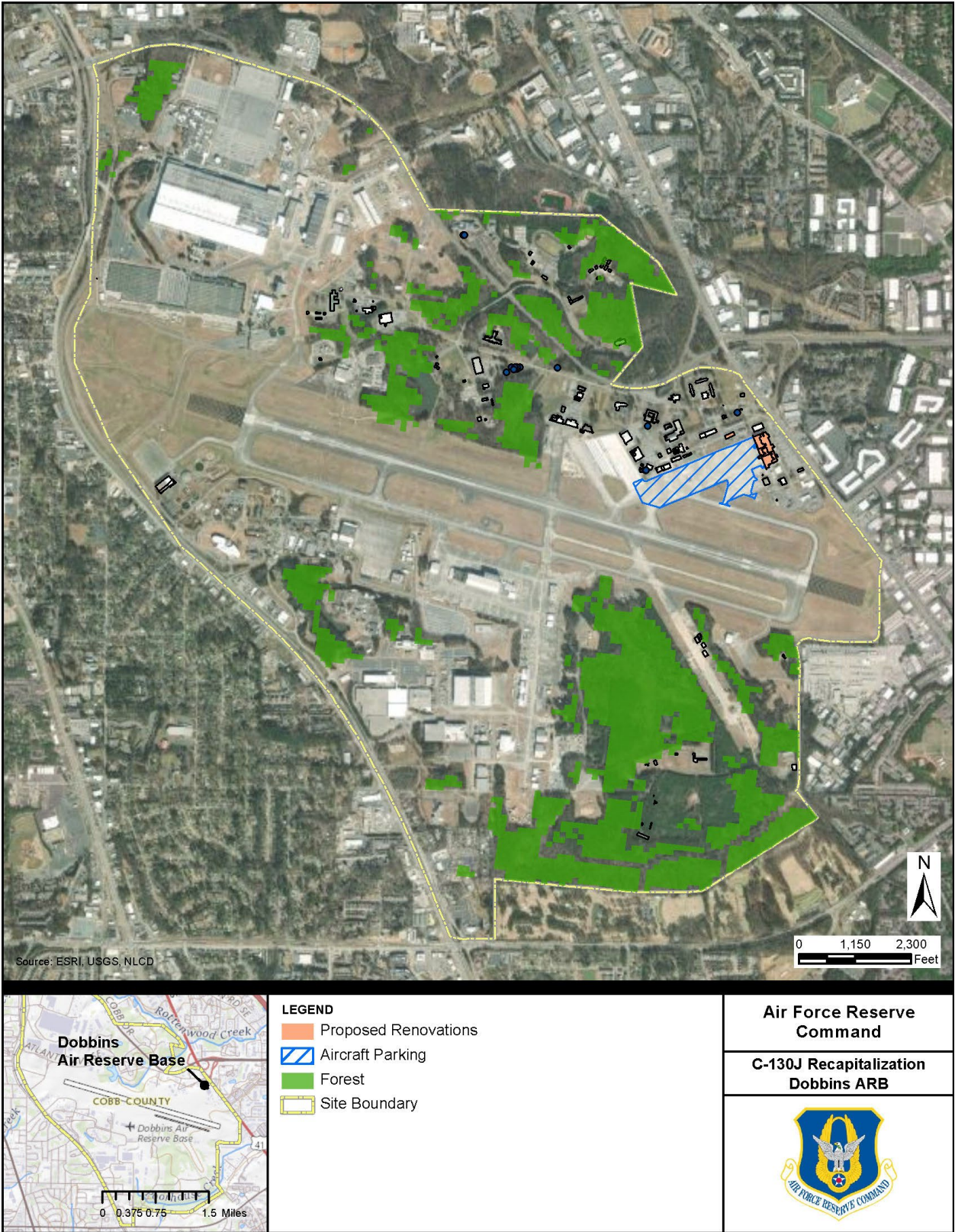
**Wildlife:** Wildlife habitat on Dobbins ARB occurs in small, isolated areas surrounded by improved areas, limiting the type of wildlife present and the populations of present species. Mammals commonly found at Dobbins ARB include the white-tailed deer, red fox, coyote (*Canis latrans*), raccoon, gray squirrel (*Sciurus carolinensis*), eastern cottontail rabbit, and opossum (*Didelphis virginiana*). The presence of security fencing around the installation prevents larger species from accessing the installation. The most abundant native birds on Dobbins ARB include mourning dove (*Zenaida macroura*), cardinal (*Cardinalis cardinalis*), tufted titmouse (*Parus bicolor*), and eastern towhee (*Pipilo erythrophthalmus*). Starlings (*Sturna vulgaris*), Canada geese (*Branta canadensis*), common grackles (*Quiscalus quiscula*), and red-winged blackbirds (*Agelaius phoeniceus*) are also common. The box turtle (*Terrapene carolina*), common garter snake (*Thamnophis sirtalis*), and northern water snake (*Nerodia sipedon*) are characteristic reptile species at Dobbins ARB. Commonly observed amphibians include the spring peeper (*Pseudacris crucifer*) and chorus frog (*Pseudacris triseriata*) (U.S. Air Force, 2023c). An aquatic resource survey was conducted in 2022 to determine the boundaries of the wetlands, streams, and lakes at Dobbins ARB. The delineation determined that Dobbins has 23.23 acres of wetlands, streams, and open water, however, none of these aquatic resources are within the project area.

Dobbins ARB maintains and implements a BASH Plan to control wildlife that might pose a strike hazard to aircraft at the installation. BASH efforts undertaken at the installation largely consist of deterrence methods such as habitat management and active harassment activities. When necessary, however, the BASH Plan allows for species removal. Depredation activities at Dobbins ARB have primarily focused on the removal of Canada geese. Some coyotes have also been removed once the population has become too large, although a small coyote population is encouraged to reduce the small mammal population (U.S. Air Force, 2023c).



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FIGURE 3.4-2 DOBBINS ARB FOREST AREAS





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**Special Status Species:** A 2007 threatened and endangered species survey at Dobbins ARB identified marginal suitable habitat for three sensitive species: the bald eagle, Bewick's wren (*Thryomanes bewickii*), and eastern mud salamander (*Pseudotriton montanus*; Air Force Center for Environmental Excellence, 2007). However, the Bewick's wren and eastern mud salamander do not currently have suitable habitat on Dobbins ARB and the bald eagle is only known to be transient through the area (U.S. Air Force, 2023c). During a 2022 bat survey, the federally endangered gray bat (*Myotis grisescens*) was detected acoustically at Dobbins ARB (94 AW, 2022). The USFWS IPaC online system was accessed on 17 May 2023 to request an Official Species List to identify federally listed species protected under the ESA with the potential to occur on or within the Proposed Action project area ROI. IPaC identified one federally threatened, one federally endangered, one proposed endangered, and one candidate species (**Table 3.4-2**). Consultation with the USFWS under Section 7 of the ESA is not required for the federally listed candidate species (the monarch butterfly). IPaC also identified an experimental population of whooping cranes (*Grus americana*). The whooping crane currently exists in the wild at three locations. There is a wild population at Arkansas-Wood Buffalo National Park, a captive-raised non-migratory population in Central Florida, and a small migratory population that migrates between Wisconsin and Florida. The population that migrates between Wisconsin and Florida is the only population that could potentially be present at Dobbins ARB; however, Dobbins ARB would only be a migratory stopover location for the species. IPaC did not identify the gray bat as a federally listed species with potential to occur at Dobbins ARB; however, results of the acoustic survey performed in 2022 indicate the gray bat may be present. No critical habitats are present at Dobbins ARB (USFWS, 2023d).

In addition to the federally listed T&E species identified in **Table 3.4-2**, IPaC also identified nine BCCs with the potential to occur within the ROI. The breeding season for the nine identified species spans from March to September (USFWS, 2023d). While not a BCC, the bald eagle was also identified as a sensitive species located in the ROI; however, bald eagles are only known to be transient through the installation area (U.S. Air Force, 2023c). In accordance with the INRMP and BASH Plan, Dobbins ARB is permitted to undertake lethal control of bird species, including non-sensitive (i.e., not threatened, or endangered) migratory birds, when necessary to protect aircraft and human safety. The BASH Plan specifies, however, that encounters with bald eagles should be avoided. In order to disturb or remove migratory birds, Dobbins ARB obtains an annual Migratory Bird Depredation Permit from the USFWS that allows for necessary take and removal while requiring impact minimization measures (U.S. Air Force, 2023c). Species surveys conducted at Dobbins ARB in 2022 did not identify any federally or state-listed T&E species occurring on Dobbins ARB. One State-protected plant, the pink lady's slipper orchid (*Cypripedium acaule*) has established populations on Dobbins ARB and is protected by the State of Georgia Wildflower Protect Act of 1973. A scoping letter was sent to the Georgia Department of Natural Resources on 30 March 2023, requesting information on potential areas of environmental impact (**Appendix A**).

**TABLE 3.4-2 FEDERALLY LISTED SPECIES WITH POTENTIAL TO OCCUR AT DOBBINS ARB**

Common Name	Scientific Name	Federal Status	Suitable Habitat
<b>Mammals</b>			
Gray bat	<i>Myotis grisescens</i>	E	Lives in caves year-round, preferring deeper caves during hibernation and roost caves along rivers during summer (USFWS, 1997).



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Common Name	Scientific Name	Federal Status	Suitable Habitat
Tricolored bat	<i>Perimyotis subflavus</i>	PE	Roost among live and dead leaf clusters of live or recently dead hardwood trees during the non-hibernating season. Hibernates in caves and mines during winter (USFWS, 2023b).
<b>Plants</b>			
White Fringeless Orchid	<i>Platanthera integrilabia</i>	T	Generally found in wet, flat, boggy areas in acidic muck or sand, and in partially, but not fully shaded areas at the head of streams or seepage slopes (NatureServe, 2023a).
Michaux's Sumac	<i>Rhus michauxii</i>	E	Occurs in dry, open maintained woodlands (U.S. Air Force, 2023). This includes highway and railroad rights-of-way, pine plantations, edges of cultivated fields, and other disturbed lands (NatureServe, 2023b).
<b>Birds</b>			
Whooping crane	<i>Grus americana</i>	EXPN	Migrates bi-annually between central Canada and its wintering grounds on the Texas coast, flying over the Great Plains states. Breeds, winters, and forages in a variety of wet habitats, such as coastal and inland marshes, estuaries, ponds, wet meadows, and agricultural fields (USFWS, 2023e).
<b>Insects</b>			
Monarch butterfly	<i>Danaus plexippus</i>	C	Monarchs in North America undergo long-distance migration between summer and overwintering sites. Adult monarchs are opportunistic nectar feeders and will gather nectar from any flowers near their migration path (Cary and DeLay, 2016). Monarch caterpillars must feed on milkweed, which often grows in previously disturbed areas, in fields, and near roadsides.

Notes: E – Endangered; PE – Proposed Endangered; T – Threatened; C – Candidate; EXPN – Experimental Population

### 3.4.1.3 Alternative 3 – Minneapolis-St. Paul ARS

**Vegetation:** Vegetation communities within one mile of the ROI include the Floodplain Forest system, Mesic Hardwood Forest system, and Upland Prairie system (934 AW, No Date). Floodplain Forest occurs within the floodplains along major rivers and their tributaries and has a canopy that is dominated by deciduous trees, such as silver maple (*Acer saccharinum*), black willow (*Salix nigra*), river birch (*Betula nigra*), and American elm (*Ulmus americana*), and ground cover is dominated by herbaceous plants (Critical Connections Ecological Services, Inc. & Hennepin County Department of Environmental Services, 2008). Hardwood forests used to be the dominant land cover in Hennepin County, but the vegetation has shifted in response to climatic changes and development. Upland Prairie is dominated by grasses, including big bluestem (*Andropogon gerardii*) and Indiangrass (*Sorghastrum nutans*), but also includes low shrub species such as leadplant (*Amorpha canescens*). This system has faced fragmentation throughout Hennepin County (Critical Connections Ecological Services, Inc. & Hennepin County Department of Environmental Services, 2008).



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No native vegetation communities are present within the ROI at Minneapolis-St. Paul ARS. The ROI is primarily developed and does not contain unimproved areas. Vegetation found within the ROI is limited to ornamental landscape trees. Various noxious weeds are also found within Minneapolis-St. Paul ARS, and these are managed in accordance with the installation's IPMP (934 AW, 2020).

**Wildlife:** Wildlife species occurring within Minneapolis-St. Paul ARS are typical of those found in developed urban and suburban environments throughout the Twin Cities region of Minnesota. Due to the absence of unimproved areas and habitat, species presence at the installation is limited. However, common species such as gray squirrel, cottontail rabbit, thirteen-lined ground squirrel (*Ictidomys tridecemlineatus*), and common bird species are occasionally observed at Minneapolis-St. Paul ARS (Department of the Air Force [DAF], 2019). The presence of security fencing around the installation prevents larger species from accessing the installation. The installation is located near the junction of the Mississippi and Minnesota Rivers, but these rivers are located outside of the ROI, and no aquatic habitat is present within the ROI. Nuisance and pest wildlife and bird control are performed in accordance with the installation's IPMP (934 AW, 2020). Minneapolis-St. Paul ARS has not developed a BASH Plan.

**Special Status Species:** The USFWS IPaC online system was accessed on 17 May 2023 to request an Official Species List to identify federally listed species projected under the ESA with the potential to occur on or within the Proposed Action project area ROI. IPaC identified three federally endangered, one proposed endangered, and one candidate species (**Table 3.4-3**). Consultation with the USFWS under Section 7 of the ESA is not required for the federally listed candidate species (the monarch butterfly). IPaC also identified an experimental population of whooping cranes. No critical habitats are present at Minneapolis-St. Paul ARS (USFWS, 2023f).

**TABLE 3.4-3 FEDERALLY LISTED SPECIES WITH POTENTIAL TO OCCUR AT MINNEAPOLIS-ST. PAUL ARS**

Common Name	Scientific Name	Federal Status	Suitable Habitat
<b>Mammals</b>			
Northern long-eared bat	<i>Myotis septentrionalis</i>	E	Hibernates in caves and mines during winter and roosts in either hibernacula or underneath bark or in cavities or crevices of trees during the summer (USFWS, 2015).
Tricolored bat	<i>Perimyotis subflavus</i>	PE	Roosts among live and dead leaf clusters of live or recently dead hardwood trees during the non-hibernating season (USFWS, 2023b). Hibernates in caves and mines during winter.
<b>Birds</b>			
Whooping crane	<i>Grus americana</i>	EXPN	Migrates bi-annually between central Canada and its wintering grounds on the Texas coast, flying over the Great Plains states. Breeds, winters, and forages in a variety of wet habitats, such as coastal and inland marshes, estuaries, ponds, wet meadows, and agricultural fields (USFWS, 2023e).
<b>Clams</b>			



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Common Name	Scientific Name	Federal Status	Suitable Habitat
Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E	Occurs only in the Mississippi River and lower tributaries that are deep, with moderate currents, and that have stable sand or rock substrates (Minnesota Department of Natural Resources [MN DNR], 2023).
<b>Insects</b>			
Monarch butterfly	<i>Danaus plexippus</i>	C	Monarchs in North America undergo long-distance migration between summer and overwintering sites. Adult monarchs are opportunistic nectar feeders and will gather nectar from any flowers near their migration path (Cary and DeLay, 2016). Monarch caterpillars must feed on milkweed, which often grows in previously disturbed areas, in fields, and near roadsides.
Rusty patched bumble bee	<i>Bombus affinis</i>	E	Occupies grasslands and tallgrass prairies but may be present where there is a constant supply of flowering plants for nectar and pollen. Nests underground or in clumps of grasses, and hibernating queens require undisturbed soil (USFWS, 2023g).

Notes: E – Endangered; PE – Proposed Endangered; C – Candidate; EXPN – Experimental Population

In addition to the federally listed T&E species identified in **Table 3.4-3**, IPaC also identified 17 migratory BCCs with the potential to occur within the ROI (USFWS, 2023f). A review of habitat and nesting preferences for migratory birds was completed in 2019, and conditions at Minneapolis-St. Paul ARS were found to be inconsistent with these preferences. No migratory birds are known to breed, nest, or forage in close proximity to the installation (DAF, 2019).

A Natural Heritage Review was requested from the Minnesota Department of Natural Resources (MN DNR) in 2019, and this review did not identify any state-listed rare or otherwise significant species within the vicinity of the installation. Additionally, no federally or state-listed species have been observed at Minneapolis-St. Paul ARS (DAF, 2019). A scoping letter was sent to the MN DNR on March 30, 2023, requesting information on potential areas of environmental impact (**Appendix A**). Minneapolis-St. Paul ARS is exempt from completing an INRMP.

#### **3.4.1.4 Alternative 4 – Peterson SFB**

**Vegetation:** Historic vegetation cover at Peterson SFB was considered part of the Western Great Plains Foothill Grassland ecological community and the Rocky Mountain Lower Riparian Woodland and Shrubland ecological community (U.S. Air Force, 2020b). The Western Great Plains Grassland occurs on the eastern part of the installation and is characterized by tallgrass prairie at the base of foothills. The Rocky Mountain Lower Riparian Woodland and Shrubland occurs along the East Fork of Sand Creek near the West Gate entrance to Peterson SFB and is characterized by riparian vegetation such as cottonwood (*Populus deltoides*) and willow (*Salix* spp.), as well as other species tolerant of episodic flooding (U.S. Air Force, 2020b).



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Historic vegetative cover has been altered greatly at Peterson SFB, and only approximately 266 acres of unimproved land remain. Approximately 25 acres of tallgrass prairie, including big bluestem and little bluestem (*Schizachyrium scoparium*), still remain but are affected by varying land uses. Other grassland species found in unimproved areas include buffalo grass (*Buchloe dactyloides*), three-awn grass (*Aristida purpurea*), and dropseed (*Sporobolus cryptandrus*) (U.S. Air Force, 2019b). The majority of vegetation present at Peterson SFB is considered disturbed planted/grazed grassland and is found in improved areas, where intensive development and landscaping occur. Vegetation in improved areas is predominantly Kentucky bluegrass (*Poa pratensis*) and varying ornamental landscape trees (U.S. Air Force, 2020b). In addition to native and landscape species, various noxious weeds are found throughout improved, semi-improved, and non-improved areas. Non-native species, including noxious weeds, are managed at Peterson SFB in accordance with the installation's IPMP (U.S. Air Force, 2020b).

**Wildlife:** Wildlife species occurring within Peterson SFB are typical of those found in disturbed grassland communities and short- and tallgrass prairie systems throughout Colorado. Species presence and habitat is limited at Peterson SFB, due to the developed nature of the site and the presence of security fencing which prevents larger species from accessing the installation. However, a variety of bird and mammal species has been documented at and in the vicinity of Peterson SFB, including black-tailed prairie dog (*Cynomys ludovicianus*), cottontail rabbit, coyote, red fox, raccoon, western meadowlark (*Sturnella neglecta*), Canada goose, rock dove (*Columba livia*), killdeer (*Charadrius vociferus*), American crow (*Corvus brachyrhynchos*), and red-tailed hawk (*Buteo jamaicensis*) (U.S. Air Force, 2020b). Acoustic bat surveys conducted in 2019 also identified 13 bat species, although three of the identified species would be outside of their range and their presence should not be assumed without additional verification (Carver, 2019). While limited aquatic habitat is present at Peterson SFB, none occurs within the ROI, and no fish or amphibians have been documented at the installation (Colorado Natural Heritage Program [CNHP], 2012).

Peterson SFB implements its IPMP to manage and reduce rabbit and rodent populations as necessary when they are found destroying vehicle and utility wiring. Peterson SFB also maintains and implements a BASH Plan to control wildlife that might pose a strike hazard to aircraft at the installation. BASH efforts undertaken at the installation have primarily focused on the removal of Canada geese and prairie dogs, as they can attract other large bird or mammalian predator species that could interfere with aircraft operations. Due to the limited habitat availability within Peterson SFB, most control efforts have removed wildlife from adjacent areas to Peterson SFB (U.S. Air Force, 2020b).

**Special Status Species:** The USFWS IPaC online system was accessed on 17 May 2023 to request an Official Species List to identify federally listed species projected under the ESA with the potential to occur on or within the Proposed Action project area ROI. IPaC identified two federally endangered, four federally threatened, and one candidate species (**Table 3.4-4**). Consultation with the USFWS under Section 7 of the ESA is not required for the federally listed candidate species (the monarch butterfly). No critical habitats are present at Peterson SFB (USFWS, 2023h).

In addition to the federally listed T&E species identified in **Table 3.4-4**, IPaC also identified five migratory BCCs with the potential to occur within the ROI (USFWS, 2023h). Migratory birds are typically found on Peterson SFB between April to mid-July, but no tree removal occurs within the installation between April 1 and August 31 to minimize impacts to nesting migratory birds. In accordance with the INRMP and BASH



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Plan, Peterson SFB is permitted to undertake lethal control of bird species, including migratory birds, when necessary to protect aircraft and human safety. In order to disturb or remove migratory birds, Peterson SFB obtains an annual Migratory Bird Depredation Permit from the USFWS that allows for necessary take while requiring impact minimization measures (U.S. Air Force, 2020b).

**TABLE 3.4-4 FEDERALLY LISTED SPECIES WITH POTENTIAL TO OCCUR AT PETERSON SFB**

Common Name	Scientific Name	Federal Status	Suitable Habitat
<b>Mammals</b>			
Gray wolf	<i>Canis lupus</i>	E	Occupies a wide range of habitats, including temperate forests, mountains, tundra, grasslands, and deserts. Gray wolves are habitat generalists and only require prey availability (USFWS, 2023i).
<b>Birds</b>			
Eastern black rail	<i>Laterallus jamaicensis ssp. Jamaicensis</i>	T	Nests in marshes and wet meadows, including riparian marshes, coastal prairies, and wetlands. Nesting and foraging habitat includes various grasses, sedges, and rushes (The Cornell Lab, 2023a).
Piping plover	<i>Charadrius melodus</i>	T	Nests along ocean shores, lakeshores, and rivers in sandy areas with sparse vegetation. Forages on beaches and exposed sandflats and mudflats (The Cornell Lab, 2023b).
<b>Fishes</b>			
Greenback cutthroat trout	<i>Oncorhynchus clarkia stomias</i>	T	Inhabits cold water streams and lakes and has different habitat requirements depending on its life stage. Juveniles require protective cover and low velocity flow. Spawning habitat requires clean gravel, and adults use both slow and fast velocity waters for resting and feeding with protective cover (USFWS, 2023j).
Pallid sturgeon	<i>Scaphirhynchus albus</i>	E	Found in the Missouri and Mississippi Rivers and some tributaries and occupy a variety of substrates but are mostly commonly found where there are sandy and fine bottom materials. Occurs at varying depths and velocities but prefers to occupy deeper waters (USFWS, 2023k).
<b>Insects</b>			
Monarch butterfly	<i>Danaus plexippus</i>	C	Monarchs in North America undergo long-distance migration between summer and overwintering sites. Adult monarchs are opportunistic nectar feeders and will gather nectar from any flowers near their migration path (Cary and DeLay, 2016). Monarch caterpillars must feed on milkweed, which often grows in previously disturbed areas, in fields, and near roadsides.
<b>Flowering Plants</b>			



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Common Name	Scientific Name	Federal Status	Suitable Habitat
Ute Ladies'-tresses	<i>Spiranthes diluvialis</i>	T	Found in moist meadows with perennial and seasonally flooded river terraces, floodplains, oxbows, spring-fed stream channels, and lakeshores (USFWS, 2023I).

Notes: E – Endangered; T – Threatened; C – Candidate

Species surveys conducted by the CNHP in 2011 did not identify any federally or state-listed T&E species occurring on Peterson SFB. CNHP observed two state species of special concern, the black-tailed prairie dog and the ferruginous hawk (*Buteo regalis*). These species were observed outside of the ROI (CNHP, 2012). Peterson SFB has not yet initiated coordination with the Colorado Department of Natural Resources to request information on potential areas of environmental impact.

### 3.4.2 ENVIRONMENTAL CONSEQUENCES

Included in this section is an impact determination for each listed species that may be present within the ROI for each alternative site. Definitions of determinations are listed below.

- No effect: There will be no impacts, positive or negative, to listed or proposed resources. Generally, no listed resources will be exposed to the action and its environmental consequences.
- May affect, but not likely to adversely affect: All effects are beneficial, insignificant, or discountable. Beneficial effects have contemporaneous positive effects without any adverse effects to the species or habitat. Insignificant effects relate to the size of the impact and include those effects that are undetectable, not measurable, or cannot be evaluated. Discountable effects are those extremely unlikely to occur.
- May affect and is likely to adversely affect: Listed resources are likely to be exposed to the action or its environmental consequences and will respond in a negative manner to the exposure.

Primarily, IPaC effects determination keys were utilized to make an effects determination where available. In the event a determination key was not available for a listed species at an alternative location, the following guidelines were applied. First, if the ROI of the Proposed Action alternative site is located outside of a species' range, there is no potentially suitable habitat within the ROI, or no species individuals were observed during field surveys, the species received an effects determination of "No Effect." Next, if potentially suitable habitat is present within the ROI but no individuals were observed, or if potential effects to the species or its habitat could be minimized through adherence to applicable mitigation measures, the species received an effects determination of "May Affect, but Not Likely to Adversely Affect." Last, if a "May Affect" determination was reached, and the potential effects are unavoidable and not able to be minimized, a "May Affect, and is Likely to Adversely Affect" determination was applied. Of note, no species were determined to be "adversely affected" by the Proposed Action at any of the alternative sites. The following sections provide site-specific summaries of anticipated impacts to biological resources.



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**3.4.2.1 Alternative 1 – Youngstown ARS**

**Vegetation:** Facility modifications necessary to accept the C-130J at Youngstown ARS would occur in areas that have already been fully developed. Other facility upgrades would consist primarily of interior work and renovations to accommodate the new class of aircraft. Invasive species or noxious weeds that may be introduced to the installation by construction equipment coming from off-site locations would be managed in accordance with Youngstown ARS's IPMP. The 32-acre woodland forest would not be disturbed under Alternative 1 and no trees would be removed. No new vegetation would be disturbed during the construction or operation of Alternative 1 and restriping of the airfield ramp would not disturb any vegetation. Therefore, Alternative 1 would have no effect on vegetation.

**Wildlife:** Wildlife habitat on Youngstown ARS is limited by existing military operations and development on the installation. The largest habitat for wildlife, the woodland forest, would not be disturbed under Alternative 1. Facility modifications and facility operation of Alternative 1 would also occur in developed portions of the installation where wildlife is unlikely to be present during daylight hours. Wildlife may wander onto and access the site, but due to surrounding development, high human presence, and the implementation of IPMP activities to limit wildlife in aircraft areas, fauna species are not likely to be present. No aquatic habitat is present and no in-water work would occur under Alternative 1. Therefore, Alternative 1 would have no effect on wildlife.

**Special Status Species:** IPaC indicates that five threatened/endangered species have potential to occur on or near Youngstown ARB. These species are listed in **Table 3.4-5**. Based on completion of the *Northern Long-eared Bat Rangewide Determination Key* in IPaC (**Appendix C**), Alternative 1 may affect, but is not likely to adversely affect, the northern long-eared bat, but the Proposed Action is not reasonably expected to result in an incidental take of the northern long-eared bat based on the USFWS consultation letter included in **Appendix C**. Further consultation with USFWS may be warranted regarding this determination.

IPaC documentation regarding the other listed species on **Table 3.4-5** is provided in **Appendix C** and concludes that due to the lack of suitable habitat within the ROI as well as the lack of observation of federally and state-listed T&E species, Alternative 1 would have no effect on the tricolored bat, Indiana bat, eastern massasauga, monarch butterfly, and migratory BCCs.

**TABLE 3.4-5 EFFECTS DETERMINATION SUMMARY – ALTERNATIVE 1**

Common Name	Scientific Name	Federal Status	Determination
<b>Mammals</b>			
Northern long-eared bat	<i>Myotis septentrionalis</i>	E	May affect, but not likely to adversely affect
Tricolored bat	<i>Perimyotis subflavus</i>	PE	No effect
Indiana bat	<i>Myotis sodalist</i>	E	No effect
<b>Reptiles</b>			
Eastern Massasauga (rattlesnake)	<i>Sistrurus catenatus</i>	T	No effect
<b>Insects</b>			
Monarch butterfly	<i>Danaus plexippus</i>	C	No effect

Notes: E – Endangered; PE – Proposed Endangered; T – Threatened; C – Candidate



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**3.4.2.2 Alternative 2 – Dobbins ARB**

**Vegetation:** Facility modifications necessary to accept the C-130J at Dobbins ARB would occur in areas that have already been fully developed. Other facility upgrades would consist primarily of interior work and renovations to accommodate the new class of aircraft. Invasive species or noxious weeds that may be introduced to the installation by construction equipment coming from off-site locations would be managed in accordance with Dobbins ARB's IPMP. No new vegetation would be disturbed during the construction or operation of Alternative 2, and therefore, Alternative 2 would have no effect on vegetation.

**Wildlife:** Wildlife habitat at Dobbins ARB is limited by surrounding development and existing military operations at the installation. Facility modifications and facility operation of Alternative 2 would occur in developed portions of the installation where wildlife is unlikely to be present during daylight hours. Wildlife may wander onto and access the site, but due to surrounding development, high human presence, and the implementation of IPMP activities to limit wildlife in aircraft areas, fauna species are not likely to be present. Therefore, Alternative 2 would have no effect on wildlife.

**Special Status Species:** IPaC indicates that five threatened/endangered species have potential to occur on or near Dobbins ARB. These species are listed in **Table 3.4-6**. No IPaC effects determination keys were available for species in this location. IPaC was further utilized to inform and document impacts determinations for species on **Table 3.4-6**, concluding that due to the lack of suitable habitat within the ROI as well as the lack of observation of federally and state-listed T&E species, Alternative 2 would have no effect on listed species, including migratory BCCs (**Appendix C**).

**TABLE 3.4-6 EFFECTS DETERMINATION SUMMARY – ALTERNATIVE 2**

Common Name	Scientific Name	Federal Status	Determination
<b>Mammals</b>			
Gray bat	<i>Myotis grisescens</i>	E	No effect
Tricolored bat	<i>Perimyotis subflavus</i>	PE	No effect
<b>Plants</b>			
White Fringeless Orchid	<i>Platanthera integrilabia</i>	T	No effect
Michaux's Sumac	<i>Rhus michauxii</i>	E	No effect
<b>Birds</b>			
Whooping crane	<i>Grus americana</i>	EXPN	No effect
<b>Insects</b>			
Monarch butterfly	<i>Danaus plexippus</i>	C	No effect

Notes: E – Endangered; T – Threatened; C – Candidate; EXPN – Experimental Population

**3.4.2.3 Alternative 3 – Minneapolis-St. Paul ARS**

**Vegetation:** Proposed activities to construct an extension to Building 870 and associated excavation and grading activities would result in limited ground disturbance and minimal removal of landscape vegetation surrounding the building. No trees would be removed to accommodate the building expansion. Other facility upgrades would consist primarily of interior work and renovations to accommodate the new class of aircraft. Invasive species or noxious weeds that may be introduced to the installation by construction equipment coming from off-site locations would be managed in accordance with Minneapolis-St. Paul ARS's IPMP. Restriping of the airfield ramp would not disturb any vegetation. Therefore, Alternative 3 would have minimal impacts on vegetation.



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**Wildlife:** Wildlife habitat within the ROI at Minneapolis-St. Paul ARS is limited given the highly developed nature of the site, and fauna species are only occasionally observed. No aquatic habitat is present and no in-water work would occur under Alternative 3. The expansion of Building 870 may result in minimal disturbances to vegetation, but due to surrounding developments and high human presence, this area is not likely used as wildlife habitat. Therefore, Alternative 3 would have no effect on wildlife.

**Special Status Species:** Information provided by the MN DNR in 2019 did not identify any federally or state-listed T&E species within Minneapolis-St. Paul ARS. However, based on completion of the *Northern Long-eared Bat Rangewide Determination Key* in IPaC (**Appendix C**), Alternative 3 may affect, but is not likely to adversely affect, the northern long-eared bat, but the Proposed Action is not reasonably expected to result in an incidental take of the northern long-eared bat based on the USFWS consultation letter included in **Appendix C**. No tree clearing would occur under Alternative 3 and the ROI is not within 150 feet of a known roost tree or 0.25 miles of a known hibernacula for the northern long-eared bat (DAF, 2019). Further consultation with USFWS may be warranted regarding this determination.

The Minnesota-Wisconsin Effects Determination Key in IPaC was utilized to analyze potential effects on the remaining species listed on **Table 3.4-7**. Based on this key, and due to the lack of suitable habitat within the ROI as well as the lack of observation of federally and state-listed T&E species, Alternative 3 would have no effect on the tricolored bat, whooping crane, Higgins eye, monarch butterfly, and rusty patched bumble bee; or on migratory BCCs (**Table 3.4-7**).

**TABLE 3.4-7 EFFECTS DETERMINATION SUMMARY – ALTERNATIVE 3**

Common Name	Scientific Name	Federal Status	Determination
<b>Mammals</b>			
Northern long-eared bat	<i>Myotis septentrionalis</i>	E	May affect, but not likely to adversely affect
Tricolored bat	<i>Perimyotis subflavus</i>	PE	No effect
<b>Birds</b>			
Whooping crane	<i>Grus americana</i>	EXPN	No effect
<b>Clams</b>			
Higgins eye (pearlymussel)	<i>Lampsilis higginsii</i>	E	No effect
<b>Insects</b>			
Monarch butterfly	<i>Danaus plexippus</i>	C	No effect
Rusty patched bumble bee	<i>Bombus affinis</i>	E	No effect

Notes: E – Endangered; PE – Proposed Endangered; C – Candidate; EXPN – Experimental Population

#### **3.4.2.4 Alternative 4 – Peterson SFB**

**Vegetation:** Proposed activities to construct an extension to Building 216 and associated excavation and grading activities would result in limited ground disturbance and minimal removal of landscape vegetation at the southern end of the building. No trees would be removed to accommodate the building expansion. Other facility upgrades would consist primarily of interior work and renovations to accommodate the new class of aircraft. Invasive species or noxious weeds that may be introduced to the installation by construction equipment coming from off-site locations would be managed in accordance with Peterson



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SFB's IPMP. Restriping of the airfield ramp would not disturb any vegetation. Therefore, Alternative 4 would have minimal impacts on vegetation.

**Wildlife:** Wildlife habitat within Peterson SFB is limited given the highly developed nature of the site. Suitable wildlife habitat is present along the southwestern edge of the aircraft parking area, but outside the installation boundary. While these areas are located within the ROI, they would not be directly affected by building modification activities occurring within Peterson SFB, and wildlife living within those areas would be removed from the work sites. Wildlife may wander onto and access the site, but due to surrounding development, high human presence, and the implementation of IPMP activities to limit wildlife in aircraft areas, fauna species are not likely to be present. No aquatic habitat is present and no in-water work would occur under Alternative 4. Therefore, Alternative 4 would have no effect on wildlife.

**Special Status Species:** Biological surveys conducted by the CNHP at Peterson SFB in 2011 did not identify any federally or state-listed T&E species. The two state species of concern, black-tailed prairie dog and ferruginous hawk, have not been observed within the ROI, and are presumed to have no suitable habitat within the ROI (CNHP, 2012). Migratory BCCs encountered during implementation of Alternative 4 would be managed in accordance with applicable sections of the installation's BASH Plan. IPaC was further utilized to inform and document impacts determinations for species on **Table 3.4-8**, concluding that due to the lack of suitable habitat within the ROI as well as the lack of observation of federally and state-listed T&E species, Alternative 4 would have no effect on listed species (**Table 3.4-8**).

**TABLE 3.4-8 EFFECTS DETERMINATION SUMMARY – ALTERNATIVE 4**

Common Name	Scientific Name	Federal Status	Determination
<b>Mammals</b>			
Gray wolf	<i>Canis lupus</i>	E	No effect
<b>Birds</b>			
Eastern black rail	<i>Laterallus jamaicensis ssp. jamaicensis</i>	T	No effect
Piping plover	<i>Charadrius melodus</i>	T	No effect
<b>Fishes</b>			
Greenback cutthroat trout	<i>Oncorhynchus clarkia stomias</i>	T	No effect
Pallid sturgeon	<i>Scaphirhynchus albus</i>	E	No effect
<b>Insects</b>			
Monarch butterfly	<i>Danaus plexippus</i>	C	No effect
<b>Flowering Plants</b>			
Ute Ladies'-tresses	<i>Spiranthes diluvialis</i>	T	No effect

Notes: E – Endangered; T – Threatened; C – Candidate

### **3.4.3 CUMULATIVE EFFECTS**

Other recently completed, concurrent, and potential future projects at each of the four alternative installations that are considered in the cumulative effects analysis would likely contribute to minor, long-term, adverse impacts to vegetation and wildlife due to ground and habitat disturbance occurring as a result of construction activities. Adherence to installation-specific plans such as INRMPs, IPMPs, and BASH Plans, as applicable, would ensure that impacts to biological resources occurring on the installations would be minimized and that vegetation and wildlife are managed appropriately. None of these projects are likely



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to result in significant habitat loss or wildlife mortality. No impacts to special status species would be anticipated, as none have been documented at any of the four alternative installations. Each alternative could contribute to minor adverse cumulative impacts to biological resources, which would not be considered significant when added to other construction and demolition projects in the vicinity.

#### **3.4.4 NO-ACTION ALTERNATIVE**

Under the No-Action Alternative, C-130J recapitalization would not occur at any of the alternative site locations, and construction activities and related impacts to vegetation and wildlife associated with the Proposed Action would not occur. Current site conditions would remain at each installation. Therefore, there would be no significant impacts to biological resources associated with the No-Action Alternative.

### **3.5 CLIMATE**

Greenhouse gases (GHGs) are compounds that contribute to the greenhouse effect. The greenhouse effect is a natural phenomenon where gases trap heat within the lowest portion of the earth's atmosphere, causing heating at the surface of the earth. The primary long-lived GHGs directly emitted by human activities are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). To estimate global warming potential (GWP), all GHGs are expressed relative to a reference gas, CO<sub>2</sub>, which is assigned a GWP equal to 1. All six GHGs are multiplied by their GWP and the results are added to calculate the total equivalent emissions of CO<sub>2</sub>e. However, the dominant GHG emitted is CO<sub>2</sub>, mostly from fossil fuel combustion (85.4 percent). This EA considers CO<sub>2</sub>e as the representative GHG emission.

The heating effect from these gases is considered the probable cause of the global warming observed over the last 50 years (USEPA, 2009a). Global warming and climate change can affect many aspects of the environment. The USEPA has recognized potential risks to public health or welfare and signed an endangerment finding regarding GHGs under Section 202(a) of the CAA (USEPA, 2009b), which finds that the current and projected concentrations of the six key well-mixed GHGs – CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub> – in the atmosphere threaten the public health and welfare of current and future generations.

#### **3.5.1 AFFECTED ENVIRONMENT**

Regional climate conditions for the most current year available (2020) are discussed for each alternative in the following sections.

##### **3.5.1.1 Alternative 1 – Youngstown ARS**

For Youngstown, Ohio, which is the closest city to Youngstown ARS with recent data, the average high temperature is 81 degrees Fahrenheit (°F) in July, which is the hottest month, and the average low temperature is 19°F in January, which is the coldest month. Youngstown has average annual precipitation of 38.91 inches per year. The wettest month of the year is July, with an average rainfall of 4.31 inches (U.S. Climate Data, 2023a).



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Most of the state of Ohio has warmed by about 1°F in the last century. Relevant long-term climate areas of concern for Alternative 1's facilities include more extremely hot days, increased spring flooding frequency, and increased summer drought severity (USEPA, 2016a).

Baseline GHG emissions for the state of Ohio in 2020 were approximately 211,586,899 metric tons of CO<sub>2</sub>e (USEPA, 2023c).

**3.5.1.2 Alternative 2 – Dobbins ARB**

For Atlanta, Georgia, which is the closest city to Dobbins ARB with recent data, the average high temperature is 90°F in July, which is the hottest month, and the average low temperature is 34°F in January, which is the coldest month. Atlanta has average annual precipitation of 49.74 inches per year. The wettest month of the year is July, with an average rainfall of 5.28 inches (U.S. Climate Data, 2023b).

Georgia has warmed less than most other states in the last century, however, Georgia's sea level is rising approximately one inch every decade. Relevant long-term climate areas of concern for Alternative 2's facilities include more hot days that could be associated with health risks, more severe floods and droughts and resulting water supply issues, increased coastal erosion, and more intense tropical storms and hurricanes (USEPA, 2016b).

Baseline GHG emissions for the state of Georgia in 2020 were approximately 106,485,982 metric tons of CO<sub>2</sub>e (USEPA, 2023c).

**3.5.1.3 Alternative 3 – Minneapolis-St. Paul ARS**

For Minneapolis, Minnesota, which is the closest city to Minneapolis-St. Paul ARS with recent data, the average high temperature is 83°F in July, which is the hottest month, and the average low temperature is 8°F in January, which is the coldest month. Minneapolis has average annual precipitation of 30.61 inches per year. The wettest month of the year is August, with an average rainfall of 4.30 inches (U.S. Climate Data 2023c).

Minnesota has warmed by about 1°F to 3°F in the last century. Relevant long-term climate areas of concern for Alternative 3's facilities include more extremely hot days associated with public health risks, increased heavy precipitation and flooding, and water pollution problems in lakes and rivers (USEPA, 2016c).

Baseline GHG emissions for the state of Minnesota in 2020 were approximately 114,383,380 metric tons of CO<sub>2</sub>e (USEPA, 2023c).

**3.5.1.4 Alternative 4 – Peterson SFB**

For Colorado Springs, Colorado, which is the closest city to Peterson SFB with recent data, the average high temperature is 85°F in July, which is the hottest month, and the average low temperature is 17°F in December, which is the coldest month. Colorado Springs has average annual precipitation of 16.54 inches per year. The wettest month of the year is August, with an average rainfall of 3.34 inches (U.S. Climate Data 2023d).



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Most of the state of Colorado has warmed by about 1°F to 2°F in the last century. Relevant long-term climate areas of concern for Alternative 4's facilities include more heat waves and drought, as well as water supply and availability issues (USEPA, 2016d).

Baseline GHG emissions for the state of Colorado in 2020 were approximately 128,255,980 metric tons of CO<sub>2</sub>e (USEPA, 2023c).

### **3.5.2 ENVIRONMENTAL CONSEQUENCES**

The change in climate conditions caused by GHGs is a global effect and activities of the scope and magnitude of the Proposed Action would have a negligible impact on overall global and regional GHG emissions and global climate change. However, for NEPA purposes, these emissions are disclosed in **Section 3.3** and the following sections for each alternative, as calculated with ACAM. For purposes of the NEPA analysis, the U.S Air Force has established a de minimis significance threshold of 75,000 tons per year CO<sub>2</sub>e (Solutio Environmental, 2019).

EO 13990, *Protecting Public Health and the Environment and Restoring Science To Tackle the Climate Crisis*, and EO 14008, *Tackling the Climate Crisis at Home and Abroad*, require an accounting of the full costs of GHG emissions from federal projects, as identified in terms of the social costs of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O. These costs are estimates of the monetized damages associated with incremental increases in these emissions. On January 9, 2023, CEQ issued *National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change*, interim guidance to assist agencies in analyzing greenhouse gas and climate change effects of their proposed actions under the NEPA. This interim guidance states that, "Agencies should exercise judgment when considering whether to apply this guidance to the extent practicable to an on-going NEPA process." The U.S. Air Force guidance on applying and conducting a Social Cost of GHG Analysis is under development. The guidance will be released shortly which will provide specifics on applying Social Cost of GHG Analyses and ensure standardization across the U.S. Air Force. Therefore, no Social Cost of GHG Analysis should be conducted for EAs and EISs that are currently ongoing. Overall, the changing climate is not anticipated to impact future operations at the new facilities or cause an increase in the impacts associated with any of the four alternatives considered. The alternatives are not located in a coastal region or along a tidally influenced river reach. Therefore, water level rise or increased flooding from climate change would not impact the alternatives. Where appropriate, installations may implement additional storm-hardening features to new and existing structures to withstand potential damage from increasing severity and frequency of severe storms and/or hurricanes.

#### **3.5.2.1 Alternative 1 – Youngstown ARS**

The estimated increase of GHG emissions associated with Alternative 1 construction activities would produce about 45 metric tons of CO<sub>2</sub>e (**Table 3.3-4**). The temporary increase in construction-related GHG emissions is well below the U.S. Air Force's insignificance indicator of 75,000 tons per year of CO<sub>2</sub>e. For the steady-state (or operational phase) of the Alternative 1, the manpower decrement is expected to yield an annual decrease of -21.5 metric tons of CO<sub>2</sub>e. Therefore, Alternative 1 would have no significant impact related to climate change.



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**3.5.2.2 Alternative 2 – Dobbins ARB**

The estimated increase of GHG emissions associated with Alternative 2 construction activities would produce about 41.8 metric tons of CO<sub>2</sub>e (Table 3.3-5). The temporary increase in construction-related GHG emissions is well below the U.S. Air Force’s insignificance indicator of 75,000 tons per year of CO<sub>2</sub>e. For the steady-state (or operational phase) of the Alternative 2, the manpower decrement is expected to yield an annual decrease of -15.2 metric tons of CO<sub>2</sub>e. Therefore, Alternative 2 would have no significant impact related to climate change.

**3.5.2.3 Alternative 3 – Minneapolis-St. Paul ARS**

The estimated increase of GHG emissions associated with Alternative 3 construction activities would produce about 75 metric tons of CO<sub>2</sub>e (Table 3.3-6). The temporary increase in construction-related GHG emissions is well below the U.S. Air Force’s insignificance indicator of 75,000 tons per year of CO<sub>2</sub>e. For the steady-state (or operational phase) of the Alternative 3, the manpower decrement is expected to yield an annual decrease of -15.1 metric tons of CO<sub>2</sub>e. Therefore, Alternative 3 would have no significant impact related to climate change.

**3.5.2.4 Alternative 4 – Peterson SFB**

The estimated increase of GHG emissions associated with Alternative 4 construction activities would produce about 68.9 metric tons of CO<sub>2</sub>e (Table 3.3-7). The temporary increase in construction-related GHG emissions is well below the U.S. Air Force’s insignificance indicator of 75,000 tons per year of CO<sub>2</sub>e. For the steady-state (or operational phase) of the Alternative 4, the manpower decrement is expected to yield an annual decrease of -19.7 metric tons of CO<sub>2</sub>e. Therefore, Alternative 4 would have no significant impact related to climate change.

**3.5.3 CUMULATIVE EFFECTS**

Overall, the four alternatives under consideration could result in minor cumulative effects on climate change in conjunction with past, present, and reasonably foreseeable future projects within the cumulative effects ROI established for this EA (Table 3.2-1). Of the future projects, FOC facility requirements for the C-130J mission at each installation, if chosen, have been preliminarily identified as a result of site surveys completed for the recapitalization action (U.S. AFRC, 2022a; U.S. AFRC, 2022b; U.S. AFRC, 2022c; U.S. AFRC, 2022d; U.S. AFRC, 2023a). Although the details and timeline for these requirements have not been completely determined/confirmed, sufficient information is available to preliminarily estimate GHG emissions associated with FOC implementation at each installation. This supplemental analysis is included for disclosure purposes in Appendix B2 and shows that FOC construction and operations activities are below the Air Force’s GHG insignificance indicators. Cumulative GHG emissions from the alternatives would not contribute significantly to climate change, but any emission of GHGs represents an incremental increase in global GHG concentrations.



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**3.5.4 NO-ACTION ALTERNATIVE**

Under the No-Action Alternative, C-130H recapitalization would not occur at any of the alternative site locations, and construction activities and related GHG emissions associated with the Proposed Action would not occur. Ongoing GHG emissions decreases associated with manpower decrements would not occur. Therefore, there would be no significant impacts to the climate or climate change associated with the No-Action Alternative.

**3.6 CULTURAL RESOURCES**

Historic property can include prehistoric or historic buildings, sites, districts, objects, or structures on or eligible for the National Register of Historic Places (NRHP; 54 U.S.C. 300308). Also included in the definition are properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization (36 CFR 800.16[1][1]) that meet National Register criteria.

The cultural resources ROI established for this EA corresponds to the limits of disturbance for each of the Proposed Action alternatives. These limits of disturbance also serve as the Area of Potential Effect (APE) to be evaluated for cultural resources and used for NHPA consultations. Previous investigation efforts are summarized for each alternative where available and applicable in the following sections.

DoDI 4715.16, *Cultural Resources Management*, and AFMAN 32-7003, *Environmental Conservation*, require military installations with known cultural resources to prepare Integrated Cultural Resources Management Plans (ICRMPs). In accordance with AFMAN 32-7003, Paragraph 2.17.1, installations that have completed cultural resource inventories and identified no historic properties or other cultural resources may petition the Air Force Civil Engineer Center Environmental Directorate (AFCEC/CZ) for a waiver of the requirement to develop and maintain an ICRMP.

Section 106 agency and Tribal consultations conducted for this EA are summarized in **Section 1.3** and related correspondence is included in **Appendix A**. Consultation outcomes are also further described in **Section 3.6.2** as applicable.

**3.6.1 AFFECTED ENVIRONMENT**

**3.6.1.1 Alternative 1 – Youngstown ARS**

Youngstown ARS completed a Cultural Resources Contingency Plan (CRCP; U.S. AFRC, 2021a) to assist facility personnel in managing the discovery of any unidentified cultural resource on the base property. The CRCP references four previous cultural resources investigations that have occurred within the base. None of these previous surveys identified cultural resources within the installation boundaries.

On 30 April 2021, AFCEC/CZ approved a petition by Youngstown ARS to grant an ICRMP Waiver, meaning that the base is not required to develop and maintain an ICRMP (AFCEC/CZ, 2021a). The waiver, which is valid until 30 April 2026, was granted because surveys at Youngstown ARS have determined, with concurrence from the Ohio SHPO, that no historic properties or other cultural resources are present in areas surveyed at the base. The ICRMP Waiver applies only to lands and facilities reflected in the reports



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that informed the initial determination. The ICRMP Waiver does not eliminate Youngstown ARS's obligation to comply with applicable cultural resources management laws, regulations, and policies.

The cultural resources APE for Alternative 1 includes the physical footprint of airfield pavement modifications and mooring point relocation as well as buildings that would be modified to achieve IOC for the C-130J at Youngstown ARS, including Building 203, Building 295, and Building 302. The buildings were constructed in 1998, 1996, and 1983, respectively, and are not eligible for the NRHP.

Installation documentation provided for the EA does not indicate presence cultural items defined under the Native American Graves Protection and Repatriation Act ([NAGPRA] 25 USC §§ 3001-3013 and 43 CFR Part 10); archaeological resources, as defined in the Archaeological Resources Protection Act ([ARPA] 16 CFR §§ 470aa – 470mm) and 32 CFR Part 229, *Protection of Archaeological Resources*; no sacred sites, as defined in EO 13007, *Indian Sacred Sites*; or archaeological collections, as defined in 36 CFR Part 79, *Curation of Federally Owned and Administered Archaeological Collections*, at Youngstown ARS or within the APE (AFCEC/CZ, 2021a). If significant cultural resources or historic properties are discovered during the five year period (e.g., while implementing the Proposed Action), then the Installation will re-evaluate the need to prepare and maintain an ICRMP. 14 federally recognized tribes are traditionally affiliated with Youngstown ARS.

**3.6.1.2 Alternative 2 – Dobbins ARB**

Dobbins ARB maintains an ICRMP to provide for effective management and protection of cultural resources. It summarizes the history and prehistory of the installation and reviews past historical and archaeological survey efforts. It outlines and assigns responsibilities for the management of cultural resources, discusses related concerns, and provides standard operating procedures that help to manage or preserve the cultural resources of the installation within the context of the mission. The current ICRMP was prepared for the period of 2022 through 2026 and was in turn developed from prior ICRMPs dating to 2001. The ICRMP is reviewed annually by U.S. Air Force stakeholders in consultation with the Georgia SHPO and appropriate federally recognized Native American tribes. Cultural resources under the stewardship of Dobbins ARB consist of a variety of archaeological sites and individual historic properties.

The cultural resources APE for Alternative 2 includes the physical footprint of buildings that would be modified to achieve IOC for the C-130J at Dobbins ARB, including Building 831, and Building 838, as well as the aircraft parking ramp where mooring points would be relocated.

The entirety of Dobbins ARB has been either directly subjected to archaeological survey or evaluated for archaeological potential. Archival research was conducted to determine the possible location of historic and archaeological sites and to direct additional survey efforts. Three archaeological sites and one prehistoric isolated find have been identified at Dobbins ARB, each of which has been determined as ineligible for inclusion to the NRHP (DAF, 2021). The two sites nearest the Alternative 2 project site are Site 9C0377 and Site 9C0378. Site 9C0377 is located approximately 4,600 feet south-southwest of the Proposed Action Alternative 2 project site and was a historic house site. Site 9C0378 is located approximately 1.3 miles south of the Alternative 2 project site and contains historic agricultural features. The prehistoric isolated find is located approximately 4,200 feet south-southwest of Alternative 2.



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A group of buildings and facilities located in the northwest corner of Dobbins ARB, approximately 1.5 miles from the proposed Alternative 2 project site, has been proposed as the Bell Bomber Plant Historic District. The Jonesville Cemetery is located approximately 3,500 feet west-northwest of Alternative 2. The Cemetery is not owned by Dobbins ARB and is therefore not managed by the base as a cultural resource. Big Lake Dam is a straight-crested gravity storage dam of concrete construction on the southeastern edge of a reservoir dating to the late nineteenth or early twentieth century, located approximately 3,000 feet west-northwest of Alternative 2. The dam is eligible for NRHP inclusion.

Building 831 (National Guard Building) was constructed in 1970 and Building 838 (Maintenance Hangar) was constructed in 1943. In total, 28 individual buildings outside of the proposed Bell Bomber Plant Historic District have been surveyed for NRHP eligibility, and none was determined eligible (DAF, 2021).

Installation documentation provided for the EA does not indicate presence cultural items defined under the NAGPRA at Dobbins ARB or within the APE. An MOU would be required per the ICRMP to resolve any adverse effects to NAGPRA sites identified in the future. Installation documentation does not indicate the presence of archaeological resources, as defined in the ARPA and 32 CFR Part 229, *Protection of Archaeological Resources*; no sacred sites, as defined in EO 13007, *Indian Sacred Sites*; or archaeological collections, as defined in 36 CFR Part 79, *Curation of Federally Owned and Administered Archaeological Collections*, at Dobbins ARB or within the APE (DAF, 2021). Five federally recognized tribes are traditionally affiliated with Dobbins ARB.

A large percentage of the land composing Dobbins ARB has been disturbed over the years. In addition to ground disturbances caused by twentieth century industrial and military use of the land, destructive farming practices were common. Prior to the land being taken over by the military in 1943, much of the soil had been disturbed for planting corn and cotton. Terracing the land in this hilly country was a common farming practice, which generally causes more disturbances than simple turnover of soil, as was the custom in flatlands. Such practices decrease the likelihood of encountering archaeological or cultural resources during excavation activities. The Georgia SHPO concurred with this finding (DAF, 2021).

### ***3.6.1.3 Alternative 3 – Minneapolis-St. Paul ARS***

On 8 March 2021, Minneapolis-St. Paul ARS petitioned AFCEC for an extension to a previously issued ICRMP Waiver (U.S. AFRC, 2021b). Surveys were completed at the installation in 1995, 2006, and 2012 for the purpose of identifying cultural resources and determining if any such resources could be potentially eligible for the NRHP. The surveys found that AFRC-controlled property at Minneapolis-St. Paul ARS lacks any relevant cultural resources as defined within AFMAN 32-7003 and DoDI 4715.16, that require management of any kind.

The only AFRC facility with NRHP eligibility status is Building 617, which is a Cold War Era Ammunition Storage Facility. It is not part of a historic district listed on or eligible for the National Register. As specified in paragraph 2.5.2 of AFMAN 32-7003, the 2006 Advisory Council Program Comment covered all Air Force structures built as ammunition storage facilities during 1939-1974. There is therefore no cultural resource management relevant or applicable to the facility (U.S. AFRC, 2021b).



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Minneapolis-St. Paul ARS has no cultural items, as defined in the NAGPRA; no archaeological resources, as defined in the ARPA and 32 CFR Part 229, *Protection of Archaeological Resources*; no sacred sites, as defined in EO 13007, *Indian Sacred Sites*; and no archaeological collections, as defined in 36 CFR Part 79, *Curation of Federally Owned and Administered Archaeological Collections* (U.S. AFRC, 2021b). Eight federally recognized tribes are traditionally affiliated with Minneapolis-St. Paul ARS. The Minnesota SHPO has concurred that no historic properties or other cultural resources are present in areas surveyed at the base.

Based on the above information, AFCEC/CZ subsequently approved the petition to extend the ICRMP Waiver at Minneapolis-St. Paul ARS; therefore, the base is not required to develop and maintain an ICRMP (AFCEC/CZ, 2021b). The Waiver is valid until 8 March 2026 and applies only to lands and facilities reflected in the reports that informed the initial determination. The ICRMP Waiver does not eliminate Minneapolis-St. Paul ARS's obligation to comply with applicable cultural resources management laws, regulations, and policies. If significant cultural resources or historic properties are discovered during the five year period (e.g., while implementing the Proposed Action), then the Installation will re-evaluate the need to prepare and maintain an ICRMP.

The cultural resources APE for Alternative 3 includes the physical footprint of buildings that would be modified to achieve IOC for the C-130J at Minneapolis-St. Paul ARS, including Building 710, Building 822, and Building 870, as well as areas of the aircraft parking ramp where mooring points would be relocated. Aside from the Cold War Era Ammunition Storage Facility, no buildings at on AFRC property at Minneapolis-St. Paul ARS would reach sufficient age to be eligible for the NRHP (50 years) until 2027.

**3.6.1.4 Alternative 4 – Peterson SFB**

Peterson SFB maintains an ICRMP to provide for effective management and protection of cultural resources (DAF, 2022a). It summarizes the history and prehistory of the installation and reviews past historical and archaeological survey efforts. It outlines and assigns responsibilities for the management of cultural resources, discusses related concerns, and provides standard operating procedures that help to manage or preserve the cultural resources of the installation within the context of the mission. The ICRMP is updated at least annually and revised once every five years, or more frequently as changes to cultural resource management and protection practices occur, including those driven by changes in applicable regulations. The current ICRMP was prepared for the period of 2022 through 2026. The ICRMP is reviewed annually by U.S. Air Force stakeholders in consultation with the Colorado SHPO and appropriate federally recognized Native American tribes.

The cultural resources APE for Alternative 4 includes the physical footprint of buildings that would be modified to achieve IOC for the C-130J at Peterson SFB, including Building 216, and Building 502, as well as the aircraft parking ramp where mooring points would be relocated. All buildings to be modified are less than 50 years old and are not eligible for the NRHP.

The entirety of Peterson SFB has been inventoried for archaeological resources and the installation currently holds no NRHP-eligible cultural resources (DAF, 2022a). However, a previously recorded homestead (5EP.6394) has been recommended to be a "needs data" cultural resource and will be treated as



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an eligible historic property until such time a full and modern re-evaluation occurs. There are over 500 structures/buildings on the installation and most historic facilities (45 years or older) at Peterson SFB have been surveyed and recorded. Except for the Colorado Springs Municipal Airport District (5EP.774), none of the facilities are considered eligible for listing on the NRHP. The 5EP.774 District consists of facilities 979, 980, 981, 982, and 999 and is listed on the NRHP (DAF, 2022a).

There are six recorded isolated finds and five archaeological sites within installation boundaries. Information divulging the location and character of traditional cultural properties at Peterson SFB is generally limited to parties directly involved in management and not divulged to the general public, in accordance with Section 304 of the NHPA. The few artifacts previously collected on the installation are currently housed on the installation. Isolated finds are considered not eligible for the NRHP. The archaeological sites are a railroad grade (5EP.713), a historic dump (5EP.1312), a historic foundation (5EP.1313), a historic ditch (5EP.2178), and a large homestead (5EP.6394). Site 5EP.6394 is a "needs data" cultural resource and all other sites have been recommended as not eligible for the NRHP. Only 5EP.2178 has met with an official Colorado SHPO concurrence (DAF, 2022a).

Installation documentation provided for the EA does not indicate presence cultural items defined under the NAGPRA at Peterson SFB or within the APE. The Peterson SFB ICRMP stipulates that the installation Cultural Resources Manager is required to develop a NAGPRA Comprehensive Agreements to define and facilitate pre-arranged methods for dealing with future inadvertent discoveries of NAGPRA remains and cultural items, in accordance with NAGPRA Section 3(c), and 43 CFR §10.4. Installation documentation does not indicate the presence of archaeological resources, as defined in the ARPA and 32 CFR Part 229, *Protection of Archaeological Resources*; no sacred sites, as defined in EO 13007, *Indian Sacred Sites*.

Since 2017, Peterson SFB has participated in face-to-face, government-to-government meetings with up to 31 culturally affiliated Tribes in relationship-building endeavors intended to introduce tribal representatives to the installation, its leadership and staff, and other compliance supporting personnel within AFCEC. There are no known traditional cultural properties or sacred sites on Peterson SFB. Given the content of past discussions during relations meetings, Peterson SFB will continue to consult about potential sacred sites, traditional cultural properties, or traditional plants and other resources on the installation, as well as the potential for using Tribal Cultural Specialists for future cultural resources inventories (DAF, 2022a).

Though it is likely that most of the surficial archaeological resources at Peterson SFB have been discovered, the potential for buried cultural resources remains, especially in areas around the East Fork of Sand Creek and along the high terrain of Peterson East where surface artifact densities appear higher. Because of this, all ground-disturbing activities such as grading, excavating, digging, trenching, or ripping have the potential to impact subsurface archaeological sites in these areas should they exist. To alleviate this concern, the Cultural Resources Manager must review all projects related to these types of activities (DAF, 2022a).

### **3.6.2 ENVIRONMENTAL CONSEQUENCES**

Potential impacts to cultural resources were evaluated for each alternative location. A cultural resources impact would be significant if it would constitute an unresolved adverse effect as defined in Section 106 of the NHPA (36 C.F.R. 800.5): alteration, directly or indirectly, of any of the characteristics of a historic



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property that qualify it for inclusion in the NRHP in a manner that would diminish the integrity of its location, design, setting, materials, workmanship, feeling, or association.

Accidental or unanticipated discoveries of archaeological resources may occur on U.S. military controlled lands. When discoveries occur, the proper actions must be taken to minimize damage to these resources and to ensure that legal requirements are met in accordance with 32 CFR Part 229, *Protection of Archaeological Resources*. In the event that accidental or unanticipated discoveries occur, potentially damaging activities will immediately cease and efforts to ensure the protection of resources will be implemented. Appropriate installation cultural resources management personnel will be contacted immediately. Work within the area of discovery will not resume until appropriate measures are implemented according to each base's ICRMP or ICRMP Waiver conditions, as appropriate.

If human remains or bones are discovered, the discoverer will note the location of the find and cease all activities within a 100-meter (328-foot) perimeter of the location. The discoverer will report the find to the appropriate cultural resources management personnel, and the program's coordinator will visit the location and determine which legal mandates are applicable, unless otherwise dictated by the base's ICRMP or ICRMP Waiver conditions. Activities will not resume within the perimeter until the cultural resources manager clears the location of all concerns.

**3.6.2.1 Alternative 1 – Youngstown ARS**

IOC facility modifications required for Alternative 1 include modifications to Buildings 203, 295, and 302 (**Section 2.3.1**). These buildings are less than 50 years old and therefore are not directly eligible for listing in the NRHP. Exceptions to this age requirement are included as NRHP Criteria Consideration G and would apply if a structure less than 50 years in age is exceptionally unique or important from a historical perspective (i.e., associated with a specific event), constitutes National Park Service rustic architecture, is a Veterans Administration Hospital, or is considered a Post-World War II or Cold War property uniquely representative of post-war urban policy or contribution to the Cold War arms race (National Park Service, 1990). None of the buildings to be modified with Alternative 1 meet these exceptional importance guidelines. Limited excavation within the aircraft parking ramp area may be required for relocation of aircraft mooring points. However, any potential excavation would be of limited area and depth. There are no records of other cultural resources in the Alternative 1 cultural resources APE. Therefore, Alternative 1 is not expected to have any adverse effects on cultural resources.

**3.6.2.2 Alternative 2 – Dobbins ARB**

IOC facility modifications required for Alternative 2 include limited modifications to Building 831 and 838 (**Section 2.3.2**). Neither building is eligible for listing in the NRHP based on surveys conducted to date (DAF, 2021). Limited excavation within the aircraft parking ramp area may be required for relocation of aircraft mooring points. However, any potential excavation would be of limited area and depth. No cultural resources have been identified in the Alternative 2 project area and given the highly disturbed nature of soils in this area, it is unlikely that cultural resources would be encountered or impacted.



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Alternative 2 would not directly or indirectly alter, modify, or impact any resources listed in, or determined to be eligible for listing in, the NRHP, and would not likely adversely affect any other significant cultural resources.

**3.6.2.3 Alternative 3 – Minneapolis-St. Paul ARS**

IOC facility modifications required for Alternative 3 include interior modifications to Building 710 and Building 822, potential minor excavation within the aircraft parking ramp area to relocate aircraft mooring points; and extension of the Building 870 nose pocket, including limited demolition and potential excavation for utility installation and foundation construction (**Section 2.3.3**). None of the facilities that would be altered under Alternative 3 are of sufficient age to be eligible for the NRHP, nor would they qualify as exceptionally important under NRHP Criteria Consideration G. Therefore, Alternative 3 would not directly or indirectly alter, modify, or impact any resources listed in, or determined to be eligible for listing in, the NRHP.

Because Minneapolis-St. Paul ARS has no identified cultural items, archaeological resources, sacred sites, or archaeological collections present at the installation, Alternative 3 is unlikely to directly or indirectly alter, modify, or impact any such resources.

**3.6.2.4 Alternative 4 – Peterson SFB**

IOC facility modifications required for Alternative 4 include interior modifications to Building 502, potential minor excavation within the aircraft parking ramp area to relocate aircraft mooring points, and extension of Building 216, including limited demolition and potential excavation for utility installation and foundation construction (**Section 2.3.4**). None of the facilities that would be altered under Alternative 4 are of sufficient age to be eligible for the NRHP, nor would they qualify as exceptionally important under NRHP Criteria Consideration G. Therefore, Alternative 4 would not directly or indirectly alter, modify, or impact any resources listed in, or determined to be eligible for listing in, the NRHP.

Any potential excavation and grading associated with Alternative 4 would occur in an area that is already highly disturbed and built up, and not located within the Peterson East identified area of concern related to archaeological resources, traditional cultural properties, and sacred sites. Because Peterson SFB has no identified cultural items, archaeological resources, sacred sites present at the installation, Alternative 4 is unlikely to directly or indirectly alter, modify, or impact any such resources.

**3.6.3 CUMULATIVE EFFECTS**

**3.6.3.1 Alternative 1 – Youngstown ARS**

Facility modifications that may be considered in the future to achieve FOC under Alternative 1 at Youngstown ARS include interior modifications in Building 302 (locker room, upgrading building systems, e.g., fire suppression and fall protection) and moving the nose pocket rear wall of Hangar 302 back 3 feet. If implemented, this work would include minor structural demolition and modification and limited excavation and grading. Hangar 302 was constructed in 1983 and is not eligible for NRHP inclusion. No other cultural resources have been identified at Youngstown ARS, and the limited excavation and grading



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that could occur is unlikely to impact any cultural resources. Therefore, Alternative 1 would not result in significant impacts to cultural resources when added to other projects in the vicinity.

**3.6.3.2 Alternative 2 – Dobbins ARB**

Facility modifications that may be considered in the future to achieve FOC under Alternative 2 at Dobbins ARB include interior demolition in the Building 746 hangar bay and modifying the hangar door cutout to fit the C-130J profile. Building 746 was constructed in 1967 as an aircraft maintenance hangar and is not eligible for the NRHP. No excavation or grading work would be associated with the potential modifications. No NRHP-eligible buildings would be affected and no other cultural resources would be impacted. Therefore, Alternative 2 would not result in significant impacts to cultural resources when added to other projects in the vicinity.

**3.6.3.3 Alternative 3 – Minneapolis-St. Paul ARS**

Facility modifications that may be considered in the future to achieve FOC under Alternative 3 at Minneapolis-St. Paul ARS include constructing a 40,000-square-foot Logistics Readiness Squadron facility, demolishing Buildings 801, 802, and 803, constructing a 225-foot by 30-foot eyebrow to the Hangar 821 north bay, and paving over the area of building demolition north of Hangar 821. Building modifications, building demolition, and excavation and grading would occur if these projects were implemented. None of the buildings that would be demolished or altered are eligible for the NRHP. Minneapolis-St. Paul ARS has no identified archaeological resources, sacred sites, or archaeological collections, and all potential excavation and grading would occur in an area that is highly disturbed and built up. Therefore, no NRHP-eligible resources would be impacted, and no other cultural resources would likely be impacted. Alternative 3 would not result in significant impacts to cultural resources when added to other projects in the vicinity.

**3.6.3.4 Alternative 4 – Peterson SFB**

Facility modifications that may be considered in the future to achieve FOC under Alternative 4 at Peterson SFB include constructing a 20-foot bay extension (eyebrow) to the Hangar 210 right bay and a 160-foot by 20-foot eyebrow to Hangar 214, and upgrading building systems (e.g., fire suppression and fall protection) throughout both buildings. Neither building is NRHP-eligible, and if excavation work were to be required, it would occur in a highly disturbed and built up area. There are no other known cultural resources in this area. Therefore, no NRHP-eligible resources would be impacted, and no other cultural resources would likely be impacted. Alternative 4 would not result in significant impacts to cultural resources when added to other projects in the vicinity.

**3.6.4 NO-ACTION ALTERNATIVE**

Under the No-Action Alternative, none of the proposed building modifications or additions would occur, and no impacts to cultural resources would be incurred.



## **3.7 HAZARDOUS MATERIALS AND HAZARDOUS WASTE**

Hazardous materials and hazardous waste are those substances defined as hazardous by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, 42 U.S.C. 9601-9675), the Toxic Substances Control Act (TSCA, 15 U.S.C. 2601-2671), and the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act (RCRA, 42 U.S.C. 6901-6992). In addition, hazardous materials are regulated by the Emergency Planning and Community Right-to-Know Act (42 U.S.C. 11001-11050). Hazardous materials are further defined in Air Force Manual (AFMAN) 32-7002, *Environmental Compliance and Pollution Prevention*, to include all items covered under the Emergency Planning and Community Right-to-Know Act or other applicable host nation, Federal, state, or local tracking or reporting requirements; all items covered by the Occupational Safety and Health Administration (OSHA) under 29 CFR 1910.1200, or 29 CFR 1910.1450, *Occupational Exposure to Hazardous Chemicals in Laboratories*; and Class I or Class II Ozone Depleting Substances.

Common hazardous materials used at AFRC bases include petroleum, oil, and lubricants (POL), paints, cleaning agents, and pesticides. Asbestos-containing materials (ACM) and lead-based paint (LBP) may be encountered during structure demolition or renovation but are unlikely to be encountered in buildings constructed after 1985. ACM and LBP are typically managed in guidance provided in location-specific management plans and in accordance with all applicable regulations.

The Air Force Installation Restoration Program (IRP) is designed to identify, investigate, and cleanup contamination associated with past Air Force activities at active Air Force installations; government-owned, contractor-operated facilities; off-site locations where contamination may have migrated; third party sites; and sites that the Air Force formerly owned or used. IRP activities are generally conducted in accordance with CERCLA or the RCRA as appropriate. DAFI 32-7020, *The Environmental Restoration Program*, provides guidance and procedures for executing the Air Force Environmental Restoration Program (ERP) within the United States.

The IRP cleanup process closely follows the requirements of the National Contingency Plan as promulgated under the CERCLA, as amended by the Superfund Amendments and Reauthorization Act of 1986, 42 USC 9601 et seq. Like the CERCLA cleanup program, the IRP seeks to minimize public health and environmental hazards associated with contaminated sites. As stated in Section 120 of CERCLA, federal facilities, including Air Force installations, are subject to applicable federal and state cleanup laws in the same manner and to the same extent as any non-federal entity. The IRP prescribes investigation and restoration activities conducted through a phased approach.

The hazardous materials ROI established for this EA corresponds to the limits of disturbance of construction activities for each of the Proposed Action alternatives.

### **3.7.1 AFFECTED ENVIRONMENT**

#### **3.7.1.1 Alternative 1 – Youngstown ARS**

The Youngstown ARS Hazardous Materials Management Plan (HMMP, U.S. Air Force, 2023d) identifies responsibilities and procedures for managing hazardous materials at Youngstown ARS. The HMMP



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implements and extends the requirements of AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*. The Youngstown ARS Hazardous Waste Management Plan (HWMP, U.S. Air Force, 2023e) provides personnel at Youngstown ARS with policies and procedures for the proper management of hazardous wastes. The Youngstown Spill Prevention, Control, and Countermeasures Plan (SPCC, U.S. Army Corps of Engineers [USACE], 2018) specifies procedures to be followed when responding to releases, accidents, and spills involving petroleum products, including spill detection, reporting, containment, cleanup, and disposal procedures. ACM at Youngstown ARS is managed in accordance with Chapter 15 of Air Force Instruction (AFI 32-1001), *Civil Engineer Operation*; Ohio Administrative Code 3745-20, *Asbestos Emission Control*; and Ohio Revised Code Chapter 3710, *Asbestos Abatement*. LBP is managed in accordance with AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*, and Ohio Revised Code Chapter 3742, *Lead Abatement*.

Youngstown ARS is typically a small quantity generator (SQG) of hazardous waste, which is defined by RCRA as a generator who generates more than 100 kilograms (kg), but less than 1,000 kg of hazardous waste per month. SQGs may accumulate hazardous waste on-site for 180 days without a permit (or 270 days if shipping a distance greater than 200 miles). Non-routine disposal actions have exceeded the 1,000 kg threshold at times. During those times, the base must meet requirements for a large quantity generator (LQG). The USEPA Generator identification number for Youngstown ARS is OH7570028764. All organizations on base are considered one generator for purposes of determining the quantity of hazardous waste generated monthly. Building 206 serves as the base's central hazardous waste accumulation and storage site. Typical hazardous waste streams at Youngstown ARS include jet fuel filters, sealing compounds, POL-contaminated absorbent materials, used solder, used aerosol cans with residue, and miscellaneous corrosives.

The U.S. Air Force historically used aqueous film-forming foam (AFFF) containing perfluorooctanoic acid (PFOA), perfluorooctane sulfonate (PFOS), and/or perfluorobutane sulfonate (PFBS) in fire training exercises and to extinguish fires. AFFF Area 9 corresponds with Building 295 and is considered low risk based on undetected surface water and groundwater contaminants, and minimal PFOA and PFOS concentrations in soil. AFFF Area 10 corresponds with Building 302 and is considered medium risk based on minimal PFBS, PFOA, and PFOS concentrations in groundwater, minimal PFOA and PFOS concentrations in soil, and no detected contaminants in surface water (U.S. Air Force, 2022a).

#### **3.7.1.2 Alternative 2 – Dobbins ARB**

The Dobbins ARB HWMP (Dobbins ARB, 2020) provides personnel at Dobbins ARB with policies and procedures for the proper management of hazardous wastes. The Dobbins ARB SPCC (U.S. AFRC, 2017a) specifies procedures to be followed when responding to releases, accidents, and spills involving petroleum products, including spill detection, reporting, containment, cleanup, and disposal procedures.

The operation of aircraft, vehicles, and equipment requires the use of various universal wastes (e.g., batteries, fluorescent and mercury containing bulbs) and hazardous materials including fuels, solvents, lubricants, and caustics. Common activities at Dobbins ARB that generate hazardous waste include aircraft and vehicle maintenance. Dobbins ARB maintains and operates as a RCRA SQG for the whole year, but occasionally there are periods when they operate as an episodic LQG. The generating organization and the



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94th Mission Support Group/Civil Engineering Environmental Flight are responsible for managing hazardous wastes. The base complies with all pertinent federal, state, U.S. Air Force, and local regulatory requirements. ACM at Dobbins ARB is managed in accordance with Chapter 15 of AFI 32-1001, *Civil Engineer Operation*; and Rules and Regulations of the State of Georgia Chapter 391-3-1-.02(9)(b)7, *Emission Standard for Asbestos*; Chapter 391-3-14, *Rules for Asbestos Removal and Encapsulation*; and Chapter 391-3-4-.01(5), *Asbestos-Containing Waste*. LBP is managed in accordance with AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*, and Rules and Regulations of the State of Georgia Subject 391-3-24, *Lead-Based Paint Hazard Management*.

Dobbins ARB has initiated and maintains an IRP to reduce risk to human health and environment attributable to past activities related to release of hazardous substances or environmental contamination. Dobbins ARB has historically stored and used AFFF on base for firefighting and training purposes but has been actively removing PFOS-based AFFF from its inventory. There are 13 locations across Dobbins ARB where AFFF releases and associated soil, ground water, and surface water contamination are known or suspected, which are managed under the base's IRP (U.S. Air Force, 2022b).

#### **3.7.1.3 Alternative 3 – Minneapolis-St. Paul ARS**

The Minneapolis-St. Paul ARS HWMP (DAF, 2022b) provides personnel at Minneapolis-St. Paul ARS with policies and procedures for the proper management of hazardous wastes, universal waste, polychlorinated biphenyl waste, and waste electronics. The Minneapolis-St. Paul ARS SPCC (U.S. AFRC, 2023b) specifies procedures to be followed when responding to releases, accidents, and spills involving petroleum products, including spill detection, reporting, containment, cleanup, and disposal procedures.

The Minneapolis-St. Paul ARS Main Base operates as a regular SQG under the RCRA, while the Snelling Small Arms Range Annex (Area B) is a conditionally exempt SQG. Building 806 serves as the single hazardous waste accumulation site at the base, and hazardous waste accumulation is limited to 180 days. Minneapolis-St. Paul ARS reports annual hazardous waste information to Hennepin County, Minnesota, but is not required to report to federal or state regulatory agencies, due to the limited scope and quantity of hazardous wastes generated at the base. Typical hazardous waste streams at Minneapolis-St. Paul ARS include waste jet fuel, waste brushes with solid film lubricant, POL-contaminated absorbent materials, used absorbent materials that are ignitable or contain cadmium, used aluminum oxide abrasive paint removal media, used paint booth filters, spent filters from the firing range air handling system, solid materials and debris collected in the range bullet trap, and miscellaneous expired adhesives.

ACM and LBP are known to be present at a number of Minneapolis-St. Paul ARS facilities (U.S. AFRC, 2002; U.S. AFRC, 2022e). ACM removal and disposal are managed under the 934 AW Asbestos Management and Operating Plan (U.S. AFRC, 2017b) and in accordance with Chapter 15 of AFI 32-1001, *Civil Engineer Operation*, and Minnesota Statutes sections 326.70 to 326.81, *Minnesota Asbestos Abatement*. LBP removal and disposal must be performed in accordance with AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*, and pursuant to Minnesota Rule 7025, *Lead Paint Removal* (Minnesota Administrative Rules, 2000).



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Minneapolis-St. Paul ARS has initiated and maintains an IRP to reduce risk to human health and environment attributable to past activities related to release of hazardous substances or environmental contamination. The base also maintains a Military Munitions Response Program (MMRP). Together, the IRP and MMRP make up Minneapolis-St. Paul ARS's current ERP. The ERP covers a variety of closed and active remediation and investigation sites including former landfills, historic fuel spill sites, and known or potential AFFF potential release locations (PRL). PRL Site 8 is located at the fire station (Building 802). Building 870 is the location of PRL Site 9, and PRL Site 10 covers the entire aircraft parking ramp. PRL Site 8 is considered low risk based, although groundwater PFOA concentrations (0.257 microgram/liter [ $\mu\text{g/L}$ ]) and PFOS concentrations (0.108  $\mu\text{g/L}$ ) are above their respective comparison values (0.40  $\mu\text{g/L}$  for both contaminants). Groundwater PFBS concentrations are minimally detected at this location. Minimal concentrations of AFFF-related contaminants are present in the soil. PRL Sites 9 and 10 are considered low risk based on minimal concentrations of AFFF-related contaminants in soil and groundwater (U.S. Air Force, 2022c).

**3.7.1.4 Alternative 4 – Peterson SFB**

The hazardous materials most commonly utilized at Peterson SFB include POL (e.g., motor vehicle fuels, motor oils, lubricants, hydraulic fluids). Additional hazardous materials used include industrial solvents, glycols, corrosives, ignitables, paints, thinners, and batteries. Hazardous materials usage at Peterson SFB is managed in accordance with Air Force Occupational Safety and Health Standards; AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*; Federal Standard 313F; and United States OSHA standards. Contractors working at the base must follow these regulations.

Peterson SFB manages the procurement and use of hazardous materials by maintaining an Installation HMMP which is designed to protect the environment, safety, and health of workers and communities. Peterson SFB also maintains an SPCC plan that includes a Hazardous Materials Emergency Response Plan establishing responsibilities and providing prevention guidelines, as well as contingency plans in the event of a hazardous materials release in accordance with USEPA requirements for spill prevention, control, and countermeasures. Only small quantities of hazardous materials (e.g., cleaning supplies, POL, etc.) are utilized on Peterson SFB where proposed development activities would occur.

Hazardous waste from operations and facilities construction (including construction and demolition) at Peterson SFB is managed in accordance with AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*, and RCRA regulations. Peterson SFB maintains an HWMP and SPCC plan to assist in compliance with these regulations. The HWMP, which also applies to contractors, establishes procedures to achieve and maintain regulatory compliance regarding accumulation, transportation, and disposal of hazardous waste. Peterson SFB is considered an SQG by RCRA standards. At Peterson SFB, wastes are initially accumulated in Initial Accumulation Points and are later stored at a Central Accumulation Point until the waste is transported off the base for proper disposal.

Colorado State Regulation No. 8, Part B regulates demolition and renovation activities that may affect ACM. The U.S. Air Force has a policy of managing asbestos in place and systematically eliminating it from facilities as modifications/renovations are conducted. Specific U.S. Air Force regulations for the handling and disposal of ACM that apply to these activities at Peterson SFB are prescribed in Chapter 15



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of AFI 32-1001, *Civil Engineer Operations*. Given the age of buildings that would be modified under Alternative 4, ACM inspections would be required to determine the presence or absence of ACM prior to facility modification activities.

LBP at Peterson SFB is managed in accordance with AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*, and Colorado State Regulation 19, *Lead-Based Paint Abatement*. Other than LBP testing within high priority facilities (e.g., family housing, child development center), a comprehensive LBP survey has not been conducted at Peterson SFB. Similar to ACM, LBP inspections would be required to determine the presence or absence of LBP prior to facility modification activities.

Peterson SFB has initiated and maintains an IRP to reduce risk to human health and environment attributable to past activities related to release of hazardous substances or environmental contamination. The IRP includes known or potential AFFF release locations. Building 502 is the location of AFFF Site 2, which is a high risk site for groundwater contamination. The elevated groundwater risk level is based on maximum PFBS concentrations of 1.30 µg/L, maximum PFOA concentrations of 1.00 µg/L, and maximum PFOS concentrations of 3.40 µg/L. Applicable comparison values for the contaminants are 0.600 µg/L, 0.040 µg/L, and 0.040 µg/L, respectively. PFOS maximum soil concentrations are 0.160 milligram per kilogram (mg/kg), with a 0.13 mg/kg comparison value, however, the soil risk is considered low at this location. Building 216 is located within the boundaries of AFFF Area 4, which is also considered high risk for groundwater contamination and low risk for soil contamination. Maximum groundwater contaminant concentrations are 0.280 µg/L for PFBS, 0.180 µg/L for PFOA, and 1.60 µg/L for PFOS. All soil contaminant levels are well below applicable comparison values (U.S. Air Force, 2022d).

### **3.7.2 ENVIRONMENTAL CONSEQUENCES**

Potential hazardous materials impacts that could result from the Proposed Action alternatives are further discussed in the following sections. The threshold level of significance for impacts resulting from hazardous materials includes a release of hazardous materials or a violation of local, state, or federal hazardous materials regulations.

In general, each alternative would contribute to minor, short-term, adverse impacts associated with the use of typical construction-related hazardous materials such as POL, paints, and solvents, and the disposal of hazardous waste during facility modification and demolition activities. Construction waste generation would be temporary and would not be significant. Handling and storage of hazardous materials during these activities, including measures to prevent releases, would be required to be conducted in accordance with all applicable environmental compliance regulations and HMMP and SPCC requirements.

Storage and disposal of hazardous wastes as directed by the installation specific HWMP would minimize impacts from storage, handling, and disposal of hazardous substances. The contractor and AFRC would be required to report any spills or discharges discovered during the course of demolition and construction. No increases or substantial changes in current quantities and types of hazardous materials or wastes would be expected upon completion of facility modifications and demolition activities. Maintaining and operating C-130J aircraft would require using hazardous materials and would generate hazardous waste. These materials and wastes would be similar to those currently generated at each of the alternative installations



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during aircraft maintenance and operation. Existing facilities and established procedures are in place for the safe handling, use, and disposal of hazardous materials at each of the alternative installations. O&M of aircraft associated with each alternative would not affect the management of hazardous materials and wastes at each alternative installation, and associated impacts would be insignificant for each alternative.

**3.7.2.1 Alternative 1 – Youngstown ARS**

Building 295 and Building 302 are co-located with areas of known or suspected AFFF-related contamination. However, the environmental health risk associated with these contaminants are considered low and medium at these locations, respectively. Additionally, the proposed facility modifications are not likely to require excavation or dewatering activities. Therefore, the risk of human exposure to these contaminants during facility modification activities is minimal. Contractors working within these sites will be notified of the presence and nature of the known contaminants, access restrictions, institutional controls, and land use controls specific to the potentially impacted site prior to beginning work. If excavation is required at either site, land use controls will be evaluated and addressed by evaluating the project to ensure continued protectiveness for human health and the environment, project generated wastes will be characterized and properly managed, and AFCEC will be consulted to ensure proper coordination and mitigation of any impacts upon cleanup site activities.

Therefore, implementation of Alternative 1 would result in negligible effects regarding hazardous materials and hazardous wastes.

**3.7.2.2 Alternative 2 – Dobbins ARB**

There is no record of AFFF release at or near Building 831 or Building 838. Additionally, modifications proposed to these facilities under Alternative 2 would not involve excavation or dewatering. Therefore, facility modification activities would not impact active IRP sites, and the risk of human exposure to these contaminants during facility modification or operations is unlikely. Any hazardous waste generated during construction or operation of Alternative 2 would be managed in accordance with the Dobbins ARB HWMP (Dobbins ARB, 2020).

Prior to interior modifications or modifications required Building 831 for partition and installation of a fume vent system, any interior modifications that may be required to accommodate the proposed propeller balancing table in Building 838, ACM and LBP surveys would be required for any areas that may be disturbed by the project activities. If ACM or LBP are identified in the work areas, all work involving disturbance or removal of ACM will adhere to provisions described in AFI 32-1001, *Civil Engineer Operation*; and Rules and Regulations of the State of Georgia Chapter 391-3-1-.02(9)(b)7, *Emission Standard for Asbestos*; Chapter 391-3-14, *Rules for Asbestos Removal and Encapsulation*; and Chapter 391-3-4-.01(5), *Asbestos-Containing Waste*. All work involving disturbance or removal of LBP will be managed in accordance with AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*, and Rules and Regulations of the State of Georgia Subject 391-3-24, *Lead-Based Paint Hazard Management*.

Implementation of Alternative 2 would result in negligible effects regarding hazardous materials and hazardous wastes.



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**3.7.2.3 Alternative 3 – Minneapolis-St. Paul ARS**

ACM is known to be present in Building 821 (floor tile and mastic, gray colored vent caulk, and transite panels) and Building 822 (condensate pipe, asbestos cement board, and floor tile). LBP is also present within the interior of both buildings and on the exterior of Building 821. ACM and LBP surveys specific to areas that could be disturbed by modification activities within these buildings would be performed prior to beginning work. If ACM or LBP are detected, management controls or abatement measures would be performed according to the 934 AW Asbestos Management and Operating Plan Minnesota Rule 7025, *Lead Paint Removal*, respectively.

Extending building 870 would likely require excavation within PRL Sites 9 and 10, which are considered low risk. Therefore, the risk of human exposure to these contaminants during facility modification activities is minimal. Contractors working within these sites will be notified of the presence and nature of the known contaminants, access restrictions, institutional controls, and land use controls specific to the site prior to beginning work. Land use controls would be evaluated and addressed by evaluating the project to ensure continued protectiveness for human health and the environment, and AFCEC should be consulted to ensure proper coordination and mitigation of any impacts upon cleanup site activities. Because PRL Site 10 is co-located with the entire parking ramp, there is a potential to encounter AFFF-related contaminants in soil during mooring point relocation. Similar protective and coordination measures would be implemented as described above.

Implementation of Alternative 3 would not result in significant effects regarding hazardous materials and hazardous wastes.

**3.7.2.4 Alternative 4 – Peterson SFB**

ACM and LBP are not known to be present, but may be present in Building 216 and Building 502. Prior to structural modification required for the proposed Building 216 extension and any interior modifications that may be required to accommodate the proposed propeller balancing table in Building 502, ACM and LBP surveys would be required for any areas that may be disturbed by the project activities. If ACM or LBP are identified in the work areas, provisions described in **Section 3.7.1.4** would be implemented prior to beginning any work that might disturb these materials.

Extending Building 216 would likely require excavation within AFFF Site 4. As noted previously, AFFF Site 4 is considered high risk for AFFF-related contaminants in groundwater and low risk for soil contaminants. While dewatering is unlikely, if it were required, dewatering effluent and excavated soil would need to be managed according to IRP, SPCC, and other applicable management provisions. Contractors working within this site would be notified of the presence and nature of the known contaminants, access restrictions, institutional controls, and land use controls specific to the site prior to beginning work. Land use controls would be evaluated and addressed by evaluating the project to ensure continued protectiveness for human health and the environment, and AFCEC should be consulted to ensure proper coordination and mitigation of any impacts upon cleanup site activities. While Building 502 is the location of AFFF Site 2, which is considered medium risk for groundwater contaminants and low risk for soil contaminants, the nature of the proposed work is unlikely to disturb impacted media or expose workers



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to site contamination. However, the same management activities previously described would be implemented for work at this location.

With the management and risk minimization provisions described in this section, implementation of Alternative 4 would not cause significant effects regarding hazardous materials and hazardous wastes.

### **3.7.3 CUMULATIVE EFFECTS**

Other recently completed, concurrent, and potential future projects at each of the four alternative installations that are considered in the cumulative effects analysis would likely contribute to minor, short-term, adverse impacts associated with the use of typical construction-related hazardous materials and construction-generated wastes. Implementation of the HWMP would be required for all projects which would minimize impacts from storage, handling, and disposal of hazardous substances. None of these projects are likely to involve a significant change in the types or quantities of hazardous materials in use or hazardous wastes generated nor affect the base's RCRA generator type or compliance status. Each alternative could contribute to minor adverse cumulative impacts to hazardous materials, hazardous waste, and IRP sites, which would not be considered significant when added to other construction and demolition projects in the vicinity.

### **3.7.4 NO-ACTION ALTERNATIVE**

Under the No-Action Alternative, the Proposed Action would not be implemented, and no facility demolitions or modifications would occur. There would be no change in the types or quantities of hazardous materials used or stored at any of the alternative locations, and no additional hazardous wastes generated relative to the baseline condition. No IRP, ERP, or AFFF sites would be impacted by activities associated with the Proposed Action.

## **3.8 NOISE**

Noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise annoying. Noise can be intermittent or continuous, steady, or impulsive, and can involve any number of sources and frequencies. Noise can be readily identifiable or generally nondescript. Human response to increased sound levels varies according to the source type, characteristics of the sound source, distance between the source and receptor, receptor sensitivity, and time of day. Affected receptors are specific (e.g., residential areas, schools, churches, or hospitals) or broad (e.g., nature preserves or designated districts) areas in which occasional or persistent sensitivity to noise above ambient levels exists. These are generally referred to as noise sensitive receptors.

Human response to noise varies, as do the metrics used to quantify it. Generally, sound can be calculated with instruments that record instantaneous sound levels in decibels (dB). An A-weighted decibel (dBA) is the unit used to characterize sound levels that can be sensed by the human ear. "A-weighted" denotes the adjustment of the frequency range to what the average human ear can sense when experiencing an audible event. The threshold of audibility is generally within the range of 10 to 25 dBA for normal hearing. The threshold of pain occurs at the upper boundary of audibility, which is normally in the region of 135 dBA (USEPA, 1981a). **Table 3.8-1** compares common sounds and shows how they rank in terms of auditory



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impacts. Noise levels can become annoying at 80 dBA and very annoying at 90 dBA. To the human ear, each 10-dBA increase seems twice as loud (USEPA, 1981b).

**TABLE 3.8-1 SOUND LEVELS AND HUMAN RESPONSE**

Noise Level (dBA)	Common Sounds	Effect
10	Just audible	Negligible
30	Soft whisper (15 feet)	Very quiet
50	Light auto traffic (100 feet)	Quiet
60	Air conditioning unit (20 feet)	Intrusive
70	Noisy restaurant or freeway traffic	Telephone use difficult
80	Alarm clock (2 feet)	Annoying
90	Heavy truck (50 feet) or city traffic	Very annoying. Hearing damage (8 hours)
100	Garbage truck	Very annoying
110	Pile drivers	Strained vocal effort
120	Jet takeoff (200 feet) or auto horn (3 feet)	Maximum vocal effort
140	Carrier deck jet operation	Painfully loud

Source: USEPA, 1981a.

Sound levels vary with time. For example, the sound increases as an aircraft approach, then falls and blends into the ambient, or background, as the aircraft recedes into the distance. Because of this variation, it is often convenient to describe a particular noise "event" by its highest or maximum sound level ( $L_{max}$ ). It should be noted that  $L_{max}$  describes only one dimension of an event; it provides no information on the cumulative noise exposure generated by a sound source. In fact, two events with identical  $L_{max}$  levels may produce very different total noise exposures. One may be of very short duration, while the other may last much longer. Typically, the Sound Exposure Level (SEL) metric is used to describe this variability based on duration of a single event.

The average day/night sound level (DNL) is an alternative metric used to measure of the total community noise environment. DNL is the average A-weighted sound level over a 24-hour period, with a 10-dBA adjustment added to the nighttime levels (between 2200 and 0700 hours). This adjustment is an effort to account for increased human sensitivity to nighttime noise events. Land use compatibility and incompatibility are determined by comparing the predicted DNL at a site with the recommended land uses. Noise levels occurring at night generally produce a greater annoyance than those of the same levels occurring during the day. It is generally agreed that people perceive intrusive noise at night as being 10 dBA louder than those occurring during the day, at least in terms of its potential for causing community annoyance.

### **3.8.1 AFFECTED ENVIRONMENT**

#### **3.8.1.1 Alternative 1 – Youngstown ARS**

The noise environment at Youngstown ARS is predominately influenced by aircraft and vehicular operations. The current DNL aircraft noise contours for the installation are depicted on **Figure 3.8-1**. Off-installation land uses within the DNL 65 dB noise contour are predominately to the northwest and southeast of the installation boundary. The Proposed Action area for this alternative is predominately located within the DNL 75 dB and above noise contour. A majority of land uses in this area are airfield, flightline, and



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administrative/support building areas, which are all considered compatible land uses within this noise contour interval.

**3.8.1.2 Alternative 2 – Dobbins ARB**

The noise environment at Dobbins ARB is predominately influenced by aircraft and vehicular operations. The current DNL aircraft noise contours for the installation are depicted on **Figure 3.8-2**. Off-installation land uses within the DNL 65 dB noise contour are predominately to the east and west of the primary runway. The Proposed Action area for this alternative is predominately located within the DNL 70 dB and above noise contour. A majority of land uses in this area are airfield, flightline, and administrative/support building area, which are all considered compatible land uses within this noise contour interval.

**3.8.1.3 Alternative 3 – Minneapolis-St. Paul ARS**

The noise environment at Minneapolis-St. Paul ARS is predominately influenced by aircraft and vehicular operations, particularly those conducted at Minneapolis-St. Paul International Airport. The current DNL aircraft noise contours for the installation are depicted on **Figure 3.8-3**. Off-installation land uses within the DNL 65 dB noise contour extend to the northwest, southeast, and south of the airport/ARS. The Proposed Action area for this alternative is predominately located within the DNL 65 dB and above noise contour. A majority of land uses in this area are airfield, flightline, and administrative/support building areas, which are all considered compatible land uses within this noise contour interval.

**3.8.1.4 Alternative 4 – Peterson SFB**

The noise environment at Peterson SFB is predominately influenced by aircraft and vehicular operations, particularly those conducted at Colorado Springs Airport. The current DNL aircraft noise contours for the installation are depicted on **Figure 3.8-4**. Off-installation land uses within the DNL 65 dB noise contour extend to the north and south of the parallel Runways 17-35. The Proposed Action area for this alternative is predominately located outside of the DNL 65 dB and above noise contour.

**3.8.2 ENVIRONMENTAL CONSEQUENCES**

The number, distribution, and location of C-130 operations would not change with the Proposed Action compared to the No-Action Alternative. Based on information contained within the NOISEMAP model,  $L_{max}$  noise levels for the C-130H and C-130J are very similar. For take-off, the C-130H has an  $L_{max}$  of 84.6 dBA at 1,000 feet compared to the C-130J which has an  $L_{max}$  of 84.7 dBA. For landings, The C-130H has a value of 83 dBA compared to 84.1 dBA for the C-130J. Changes of approximately one decibel are difficult to discern for most listeners due to attenuation and other aspects of the acoustic signatures. Noise attenuates rapidly over distance, so the slightly increased decibel level with the C-130J would not likely be discernible during an overflight compared to the C-130H. Further,  $L_{max}$  is a measure of the maximum sound level during an event such as an overflight. Discrete sound levels fluctuate and higher and lower values would average out if these discrete sound levels were converted to SEL of a single event. Further, noise exposure on sensitive land uses is typically computed using the DNL metric, which further averages multiple sound exposure events over a 24-hour period. Given these factors and the relatively small difference in  $L_{max}$  noise levels described above, implementation of the Proposed Action would likely not result in any aircraft noise



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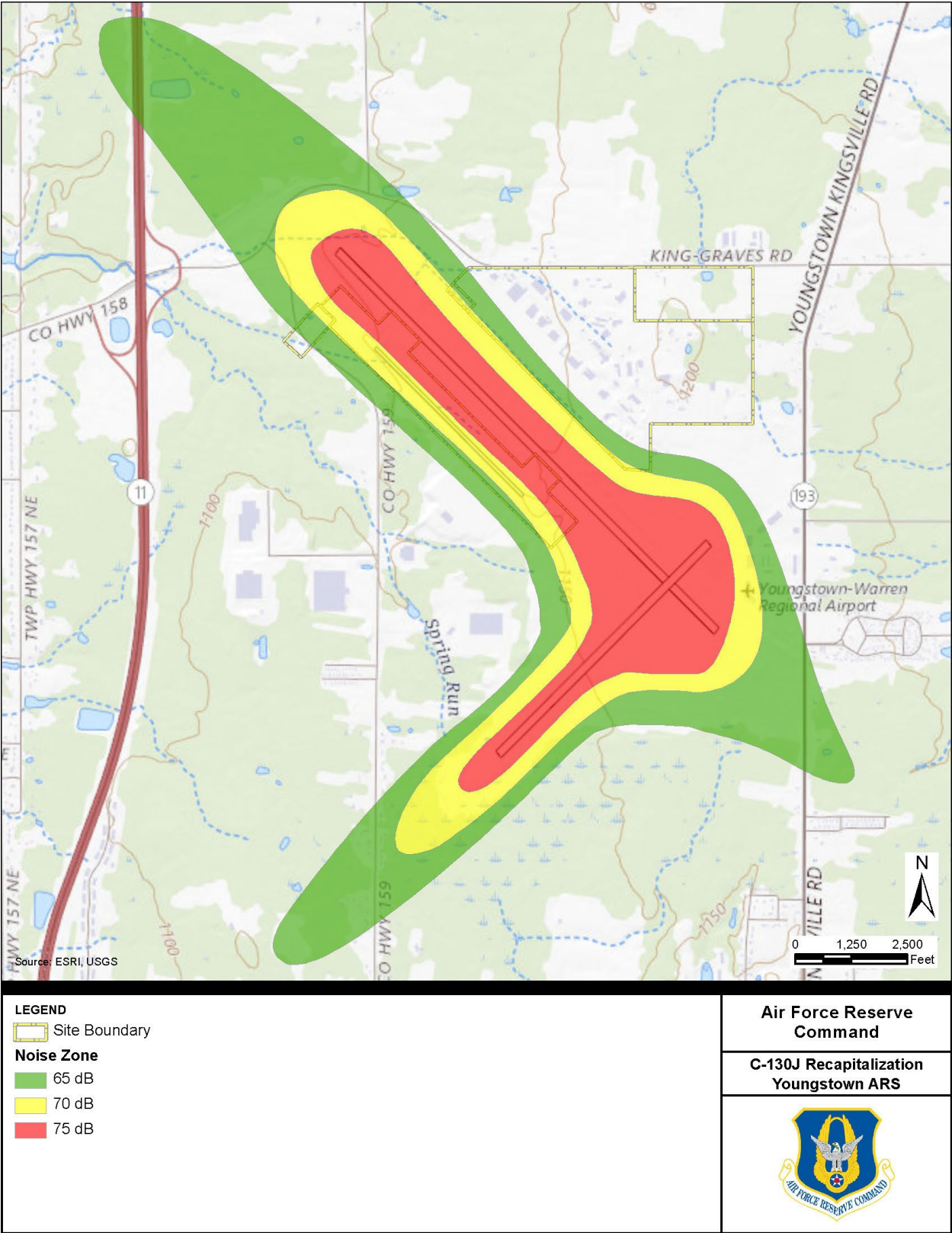
1 related impacts on sensitive noise receptors in the vicinity of the proposed alternatives. Therefore, a detailed  
2 quantitative analysis of aircraft operational noise is not included in this EA.

3 Construction activities associated with the Proposed Action are expected to result in a short-term, negligible  
4 to minor, adverse impact on the human noise environment at each installation. Construction activities  
5 would include, but are not limited to clearing, grading, and excavation; materials transport; pavement  
6 construction; and building construction. These activities would involve the use of vehicles, heavy  
7 construction equipment, and machinery and would be conducted during the daytime hours of 0700 to 1700.  
8 Construction activities would temporarily increase noise levels in the immediate vicinity of the Proposed  
9 Action areas; however, because distance rapidly attenuates noise levels, the areas would experience only a  
10 minor increase in ambient noise conditions during construction hours.



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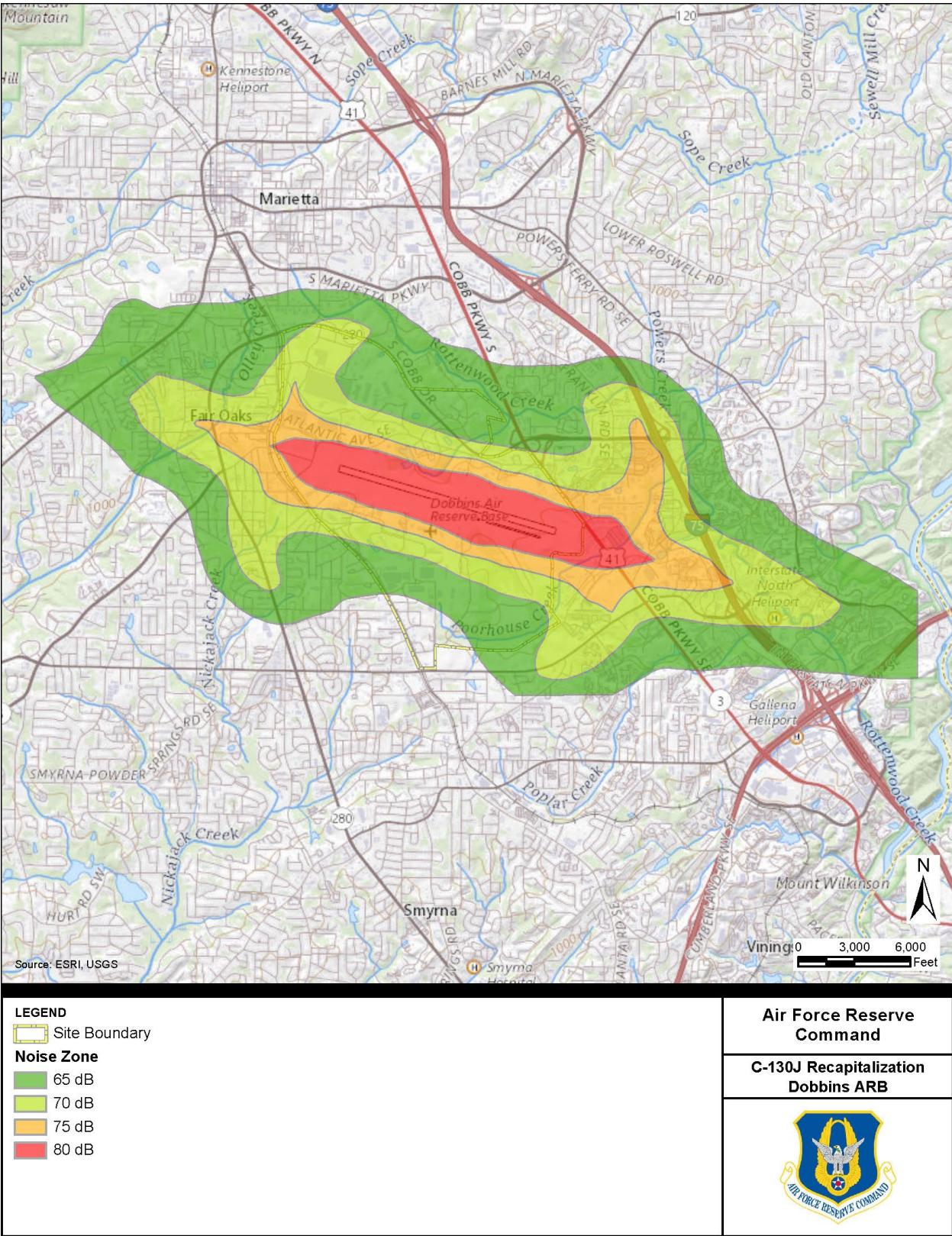
FIGURE 3.8-1 YOUNGSTOWN ARS NOISE CONTOURS





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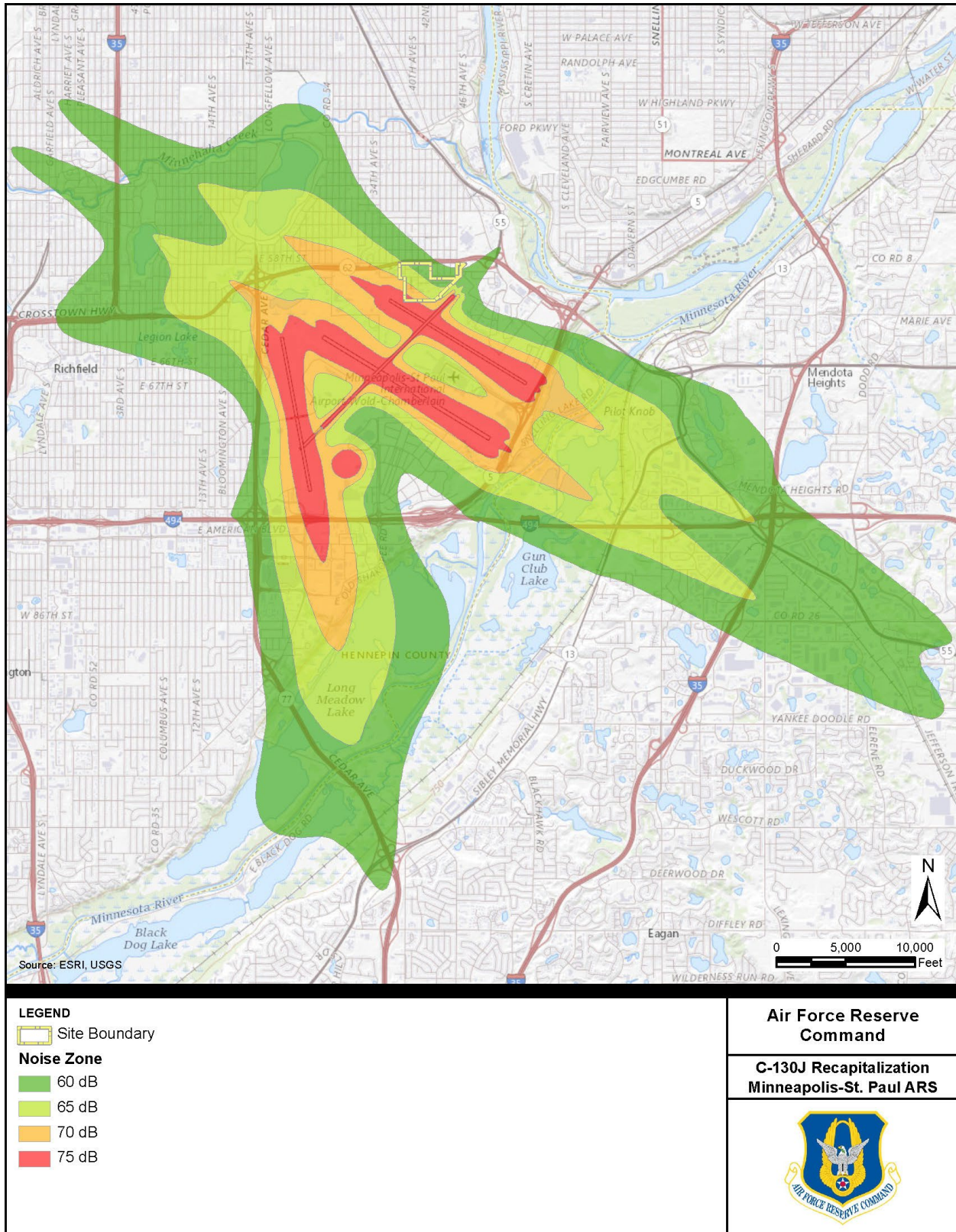
**FIGURE 3.8-2 DOBBINS ARB NOISE CONTOURS**





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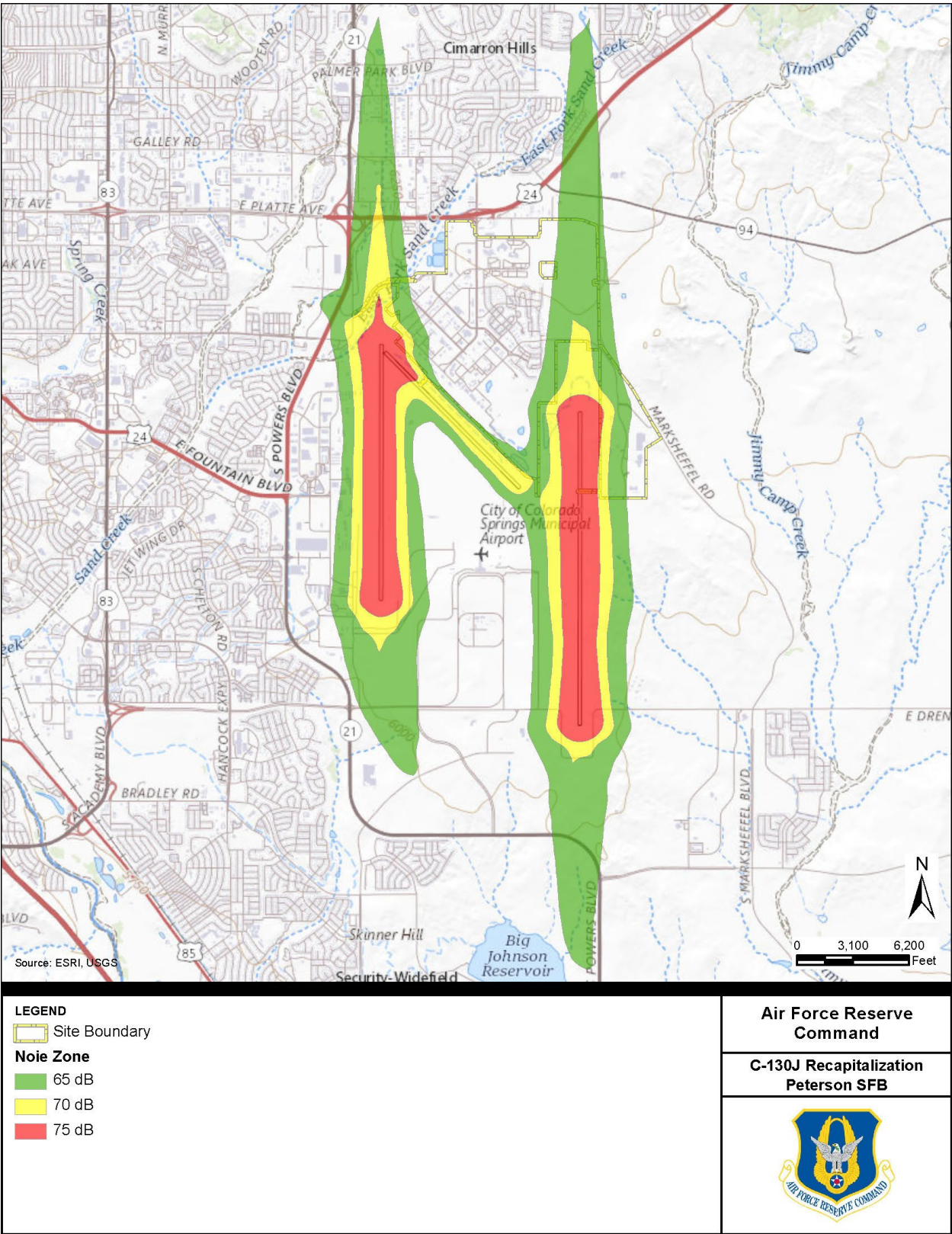
**FIGURE 3.8-3 MINNEAPOLIS-ST. PAUL ARS NOISE CONTOURS**





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**FIGURE 3.8-4 PETERSON SFB NOISE CONTOURS**





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**3.8.2.1 Alternative 1 – Youngstown ARS**

**Table 3.8-2** presents measured noise levels of common construction equipment at 50 feet. The table also provides the attenuation of these sound levels at 500, 1,000 and 1,500 feet. Potential equipment utilization based on ACAM modeling for Alternative 1 includes Concrete/Industrial Saws, Rubber Tired Dozers, and Tractors/Loaders/Backhoes, as well as Cranes and Forklifts.  $L_{max}$  levels for these equipment range between 82 and 90 dBA at 50 feet, and attenuate to between 52 and 60 dBA at 1,500 feet. The nearest potential noise-sensitive location to the proposed construction area is the Community Activity Center approximately 1,200 feet away. Noise levels at this distance would not render this facility or surrounding land use noise-incompatible. Construction noise effects would be short term and minor in nature.

**TABLE 3.8-2 CONSTRUCTION EQUIPMENT NOISE LEVELS**

Construction Equipment	$L_{max}$ at 50 feet	$L_{max}$ at 500 feet	$L_{max}$ at 1,000 feet	$L_{max}$ at 1,500 feet
Cement and Mortar Mixers Composite	80	60	54	51
Concrete/Industrial Saws Composite	90	70	64	60
Cranes Composite	88	68	62	58
Excavators Composite	81	61	55	51
Forklifts Composite	85	65	59	55
Generator Sets Composite	81	61	55	51
Graders Composite	85	65	59	55
Other Construction Equipment Composite	85	65	59	55
Other General Industrial Equipment Composite	85	65	59	55
Pavers Composite	77	57	51	47
Paving Equipment Composite	77	57	51	47
Rollers Composite	80	60	54	50
Rubber Tired Dozers Composite	82	62	56	52
Scrapers Composite	85	65	59	55
Tractors/Loaders/Backhoes Composite	85	65	59	55
Welders Composite	73	53	47	43

Source: USDOT, 2006.

**3.8.2.2 Alternative 2 – Dobbins ARB**

Potential equipment utilization based on ACAM modeling for Alternative 2 includes Graders, Rubber Tired Dozers, Tractors/Loaders/Backhoes, Excavators, Pavers, Rollers, Mixers, Cranes and Forklifts.  $L_{max}$  levels for these equipment range between 77 and 88 dBA at 50 feet, and attenuate to between 47 and 60 dBA at 1,500 feet (**Table 3.8-2**). The nearest potential noise-sensitive locations to the proposed construction area include Jonesville Cemetery, Dobbins ARB Rec Area and FamCamp, and Al Burruss Nature Park, which are each more than 2,000 feet away. Noise levels at this distance would not render surrounding land use noise-incompatible. Construction noise effects would be short term and minor in nature.

**3.8.2.3 Alternative 3 – Minneapolis-St. Paul ARS**

Potential equipment utilization based on ACAM modeling for Alternative 3 includes Graders, Rubber Tired Dozers, Tractors/Loaders/Backhoes, Excavators, Pavers, Rollers, Mixers, Cranes and Forklifts.  $L_{max}$  levels for these equipment range between 77 and 88 dBA at 50 feet, and attenuate to between 47 and 60 dBA at 1,500 feet (**Table 3.8-2**). The nearest potential noise-sensitive locations to the proposed construction area



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are off-installation residences along 42<sup>nd</sup> Avenue and 59<sup>th</sup> Street, the closest of which is approximately 1,200 feet away. Noise levels at this distance would attenuate to levels that would not cause a residential land use incompatibility, and further, buildings exist between the construction site and the residential areas which could further attenuate/shield construction noise from the Proposed Action. Construction noise effects would be short term and minor in nature.

**3.8.2.4 Alternative 4 – Peterson SFB**

Potential equipment utilization based on ACAM modeling for Alternative 4 includes Graders, Rubber Tired Dozers, Tractors/Loaders/Backhoes, Excavators, Pavers, Rollers, Mixers, Cranes and Forklifts.  $L_{max}$  levels for these equipment range between 77 and 88 dBA at 50 feet, and attenuate to between 47 and 60 dBA at 1,500 feet (**Table 3.8-2**). The nearest potential noise-sensitive locations to the proposed construction area are recreational land uses associated with Silver Springs Golf Course and Eagle Park, each within 1,000 feet. Noise levels at this distance would attenuate to levels that would not cause a recreational land use incompatibility. Construction noise effects would be short term and minor in nature.

**3.8.3 CUMULATIVE EFFECTS**

Construction-related noise would be temporary, and none of the alternatives considered would have an impact on operations-related noise levels. Cumulative noise levels are not expected to substantially change the noise contours currently experienced within the region of each installation. Future projects implemented by the U.S. Air Force, AFRC, or other entities located at an alternative installation could change aircraft noise contours. However, impacts to noise from the Proposed Action would not add or contribute to possible future impacts from those other projects. Therefore, the Proposed Action alternatives, when combined with other past, present, and reasonably foreseeable projects would not contribute to adverse cumulative impacts on the noise environment.

**3.8.4 NO-ACTION ALTERNATIVE**

Under the No-Action Alternative, construction activities would not occur, and existing conditions discussed in **Section 3.8.1** would continue. Implementation of the No-Action Alternative would not result in any new or additional impacts on the noise environment. Under the No-Action Alternative temporary increases in construction noise would not occur.

**3.9 SOCIOECONOMICS**

Socioeconomics is an umbrella term used to describe aspects of a project that are either social or economic in nature. A socioeconomic analysis evaluates how elements of the human environment such as population, employment, housing, might be affected by the proposed action and alternative(s).

Section 1508.14 of the CEQ Regulations states that “economic or social effects are not intended by themselves to require preparation of an environmental impact statement. When an environmental impact statement is prepared and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment.” Therefore, the requirement to prepare socioeconomic analysis in an EA is project specific and is dependent



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upon the existence of a relationship between natural or physical environmental effects and socioeconomic effects.

The relevant factors related to the Proposed Action include population, income and employment, and housing. It is anticipated that socioeconomic impacts from the Proposed Action would be experienced primarily by communities adjacent to or near the selected alternative installation. Therefore, the socioeconomic ROI for evaluation at each installation includes the nearest sizable municipality or municipalities and their respective county seat, as these are the geographic locations where workers and their families are most likely to reside, and spend their wages, salary, and benefits on goods and services, which impact the socioeconomic environment in the region. Additionally, data for Metropolitan Statistical Areas (MSA), the state and nation are provided for further information and comparative analysis.

### **3.9.1 AFFECTED ENVIRONMENT**

#### **3.9.1.1 *Alternative 1 – Youngstown ARS***

Youngstown ARS is located within the census designated place (CDP) of Vienna, in Trumbull County Ohio. The closest city is Youngstown, OH, located approximately 12 miles to the south, in Mahoning County. The base is located within the Youngstown-Warren-Boardman, OH-PA MSA. The ROI for the socioeconomic analysis include the CDP of Vienna, Youngstown, Mahoning and Trumbull Counties and the Youngstown-Warren-Boardman, OH-PA MSA.

Vienna had an estimated population of 694 in 2021, an increase of 6.8 percent between 2010 and 2021. During the same period, population decreased in other ROI locations. Youngstown decreased 8.5 percent to an estimated population of 61,274 in 2021. The population of Trumbull and Mahoning Counties decreased 3.9 percent and 4.1 percent to 202,199 and 229,044 people, respectively. The population of the metropolitan area decreased from 565,773 in 2010 to 542,459 in 2021, a 4.1 percent decrease. During the same period, the population of the state increased 2.0 percent, and the nation increased 6.8 percent (U.S. Census Bureau [USCB], 2010; USCB, 2020; USCB, 2021a).

In 2021, 22,061 people comprised the employed civilian labor force in Youngstown. Mahoning and Trumbull Counties employed 104,427 and 86,081 people, respectively. Vienna had employment of 304. Unemployment rates in the ROI ranged from 4.9 percent (Trumbull County) to 14.2 percent (Youngstown). The state and national unemployment rates were 5.3 percent and 5.5 percent respectively (USCB, 2021b).

Within the ROI, Vienna had the highest median household income (\$51,667). Youngstown had the lowest (\$31,020), significantly lower than the state (\$61,938) and nation (\$69,021). Youngstown also had the lowest per capita income (\$18,820), significantly lower than the state (\$34,526) and nation (\$37,638) (USCB, 2021b).

The installation has no capacity for permanent on-site housing. The majority of personnel reside in the metropolitan area or neighboring communities and counties, which offer a variety of housing options (U.S. AFRC, 2022b). Housing Units total 330,616 in Youngstown, and 108,448 and 94,616 in Mahoning and Trumbull Counties, respectively. Median Home Values range from \$48,600 (Youngstown) to \$115,400 in the metropolitan area, significantly less than the state (\$159,900) and nation (\$244,900) (USCB, 2021c).



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Within the ROI, vacancy rates range from 2.6 percent (Vienna) to 15.2 percent (Youngstown), substantially lower than the state (9.1 percent) and nation (11.2 percent) (USCB, 2021c).

**3.9.1.2 Alternative 2 – Dobbins ARB**

Dobbins ARB is located in the city of Marietta in Cobb County, GA. The city of Smyrna is located less than 1 mile from the base's southern boundary, also in Cobb County. The city of Atlanta (Fulton County) lies approximately 17 miles southeast. The base is located within the Atlanta-Sandy Springs-Alpharetta, GA MSA. The ROI for the socioeconomics analysis includes the municipalities of Marietta and Smyrna, Cobb County and the Atlanta-Sandy Springs-Alpharetta, GA MSA.

Cobb County had an estimated population of 762,500 in 2021. Population increased 10.8 percent between 2010 and 2021 in the county. Marietta and Smyrna had estimated populations and growth rates of 60,962 and 55,460, and 7.7 percent and 8.2 percent, respectively. The county is growing faster than the cities; however, the most robust population growth was in the Atlanta metro area, which grew 14.4 percent between 2010 and 2021, exceeding both the state (9.7 percent) and the nation (6.8 percent) (USCB, 2010; USCB, 2020; USCB, 2021a)

In 2021, 31,763 people comprised the employed civilian labor force in Marietta. The employed labor civilian labor force in Smyrna was 32,622. Unemployment rates in Marietta (4.2 percent), Smyrna (4.0 percent) and Cobb County (4.9 percent) were lower than the metropolitan area (5.2 percent), the state and nation (both 5.5 percent) (USCB, 2021b).

Cobb County had the highest median household income (\$86,013), greater than Marietta (\$62,585), Smyrna (\$83,029) the metropolitan area (\$75,267), as well as the state and the nation (USCB, 2021b). Marietta had the lowest per capita income (\$37,965) within ROI municipalities, but higher than the state (\$34,516) and similar to the nation (USCB, 2021b).

The installation has no capacity for permanent on-site housing. 94 AW partners with a local housing organization to assist personnel with finding rental housing. The majority of personnel reside in the metropolitan area or neighboring communities, which offer a variety of housing options (U.S. AFRC, 2022a). Housing units total 26,434, 26,522 and 306,434 in Marietta, Smyrna, and Cobb County, respectively. Median Home Value in Marietta (\$330,700) and Smyrna (\$328,600) were significantly higher than the metropolitan area (\$252,100), the state and nation. Vacancy rates range from 6.2 percent (county) to 7.7 percent (Marietta) in the ROI, substantially lower than the state and nation (USCB 2021c).

**3.9.1.3 Alternative 3 – Minneapolis-St. Paul ARS**

Minneapolis-St. Paul ARS is located in the city of Minneapolis in Hennepin County, Minnesota. The base is located within the Minneapolis-St. Paul-Bloomington, MN-WI MSA. The ROI for the socioeconomics analysis includes the city of Minneapolis, Hennepin County and the Minneapolis-St. Paul-Bloomington, MN-WI MSA.

Minneapolis had an estimated population of 425,091 in 2021. Population increased 11.1 percent between 2010 and 2021. During the same period, population increased 10.2 percent in the County, which had a



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population of 1,270,283 in 2021. Population growth in the metropolitan area was greater (11.6 percent) than the city or county. Growth in the ROI exceeded the state (6.9 percent) and the nation (6.8 percent) (USCB, 2010; USCB, 2020; USCB, 2021a).

In 2021, 244,523 people comprised the employed civilian labor force in Minneapolis. The 2021 unemployment rate in Minneapolis (5.6 percent) was greater than the county (4.3 percent), the metropolitan area and state (both 4.0 percent), but similar to the nation (5.5 percent) (USCB, 2021b).

Minneapolis, median household income (\$70,099) and per capita income (\$43,925) were less than the county, at \$85,438 and \$50,478 respectively (USCB, 2021b).

The installation has no capacity for permanent on-site housing. The majority of personnel reside in the metropolitan area or neighboring communities, which offer a variety of housing options (U.S. AFRC, 2022c). Housing Units total 182,419 and 523,528 in Minneapolis and Hennepin County, respectively. Median Home Value in Minneapolis (\$284,400) was lower than the County (\$309,200), as well as the state and nation. Vacancy Rates in the ROI range from 4.9 percent (County) to 6.2 percent (Minneapolis) but were substantially lower than the state and nation (USCB, 2021c)

**3.9.1.4 Alternative 4 – Peterson SFB**

Peterson SFB is located in the city of Colorado Springs in El Paso County, CO. The base is located within the Colorado Springs, CO MSA. The ROI for the socioeconomics analysis includes the city of Colorado Springs and El Paso County.

Colorado Springs had an estimated population of 475,282 in 2021. Population increased 14.1 percent between 2010 and 2021. During the same period, population increased 16.1 percent in the county, which had a population of 722,736 in 2021. Population growth rates in the city, county and metropolitan area were greater than the state (13.8 percent) and significantly higher than the nation (6.8 percent) (USCB, 2010; USCB, 2020; USCB, 2021a).

In 2021, 231,594 people comprised the employed civilian labor force in Colorado Springs. The 2021 unemployment rate in Colorado Springs (5.9 percent) was less than the county (6.1 percent) and the metropolitan area (5.0 percent) but greater than the state (4.6 percent) and nation (5.5 percent) (USCB, 2021b).

Median household income (\$71,957) was less than the county (\$75,909) but more than the nation (\$69,021). Per capita income (\$37,979) was similar to the county, the metropolitan area, and the nation, but less than the state (\$42,807) (USCB, 2021b).

Housing on the installation meets the current needs. The majority of the installation community resides off-base within the local commuting area. Colorado Springs and neighboring communities provide a variety of housing options. The base has a Housing office that assists families in finding community housing (U.S. AFRC, 2022d). Housing units total 197,571 in Colorado Springs, and 283,726 in the county. Vacancy rates in the ROI range from 4.5 percent (Colorado Springs) to 5.5 percent (metropolitan area), significantly lower than the state (9.2 percent) and the nation (11.2 percent). Median Home Values in the



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ROI range from \$324,100 (Colorado Springs) to \$331,300 (metropolitan area), significantly lower than the state (\$397,500) but greater than the nation (\$244,900) (USCB 2021c).

### **3.9.2 ENVIRONMENTAL CONSEQUENCES**

An action could have a significant effect with respect to socioeconomics if it were to substantially change the levels of population, employment, personal income, housing or public services.

In general, implementation of the Proposed Action at any of the proposed alternative locations would include modifications, improvements, and/or renovations to existing facilities and infrastructure, and various operations and maintenance related activities in the near term. As a result, minor, short-term, direct, beneficial impacts to socioeconomics resources are anticipated. Benefits include the purchase of materials, equipment, and services and a temporary increase in employment and income. This increase would be local or regional, depending on where the goods, services, and workers were obtained. It is likely some construction materials and services would be purchased locally in the ROI as well as in adjacent counties and cities. Most of the construction workforce would likely be from local or regional communities, sourced mostly from construction contractors, with a small portion of the workforce potentially coming from out of state. Impacts would be short-term because of the limited duration of the construction activities and minor because the economic benefit of the construction jobs is small in relation to the economic activity in the ROIs at each installation. No new permanent jobs would be associated with the Proposed Action.

Overall, implementation of the Proposed Action would provide limited short-term socioeconomic benefits to the local economy, including temporary employment and materials purchases during construction, as well as long-term loss of permanent and part-time employment associated with manpower decrements. However, both short-term beneficial impacts and long term adverse impacts would be negligible on a regional scale and the Proposed Action alternatives would result in no long-term changes in employment levels, unemployment rates, or economic activity at or in the vicinity each candidate installation. Thus, implementation of the Proposed Action would have no significant impact on socioeconomic resources.

#### **3.9.2.1 *Alternative 1 – Youngstown ARS***

Implementation of this alternative could result in the permanent loss of 35 jobs (5 full-time and 30 part-time) due to decreased manpower requirements once the facility modifications are operational and new aircraft are deployed. Reservist personnel are likely to have other full time employment or would be able to obtain other employment in the ROI, or may transfer their duties to a new facility, if appropriate. If reservists transfer elsewhere, housing availability could increase, impacting the vacancy rate in the area, but this impact would be negligible.

#### **3.9.2.2 *Alternative 2 – Dobbins ARB***

Implementation of this alternative could result in the permanent loss of 22 total jobs (4 full-time and 18 part-time) due to decreased manpower requirements once the facility modifications are operational and new aircraft are deployed. Reservist personnel are likely to have other full time employment or would be able to obtain other employment in the ROI, or may transfer their duties to a new facility, if appropriate. If



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reservists transfer elsewhere, housing availability could increase, impacting the already high vacancy rate in the area, but this impact would be negligible.

**3.9.2.3 Alternative 3 – Minneapolis-St. Paul ARS**

Implementation of this alternative could result in the permanent loss of 23 total jobs (4 full-time and 19 part-time) due to decreased manpower requirements once the facility modifications are operational and new aircraft are deployed. Reservist personnel are likely to have other full time employment or would be able to obtain other employment in the ROI, or may transfer their duties to a new facility, if appropriate. If reservists transfer elsewhere, housing availability could increase, impacting the already high vacancy rate in the area, but this impact would be negligible.

**3.9.2.4 Alternative 4 – Peterson SFB**

Implementation of this alternative could result in the permanent loss of 35 total (4 full-time and 31 part-time) due to decreased manpower requirements once the facility modifications are operational and new aircraft are deployed. Reservist personnel are likely to have other full time employment or would be able to obtain other employment in the ROI, or may transfer their duties to a new facility, if appropriate. If reservists transfer elsewhere, housing availability could increase, impacting the vacancy rate in the area, but this impact would be negligible.

**3.9.3 CUMULATIVE EFFECTS**

For all alternatives considered, minor, short-term, direct, beneficial impacts to socioeconomics from construction would add to indirect benefits from other recently completed, ongoing, or planned construction projects in the area. These projects would create temporary jobs and use materials from local vendors, both of which would benefit the local economy. No adverse cumulative effects are anticipated.

**3.9.4 NO-ACTION ALTERNATIVE**

Under the No Action Alternative, no new construction would occur and existing socioeconomic conditions would continue. There would be no new construction jobs and local labor and materials would not be used. Neither would there be a manpower decrement. No modifications or additions would be made at each facility, however, no new advances in mission critical capabilities would be achieved nor long term savings gained as a result of the deployment of new aircraft. Thus, there would be no short-term beneficial or long-term adverse impacts to socioeconomics in the ROIs at each installation as a result of the No Action Alternative.

**3.10 SAFETY AND OCCUPATIONAL HEALTH**

A safe environment is one in which there is little to no potential for serious bodily injury or illness, death, or property damage, or the potential risk has been reduced to the maximum extent possible. Safety addresses the well-being, safety, and health of members of the public, contractors, and AFRC personnel during project implementation, including demolition and construction, and also during subsequent operations and maintenance.



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Safety and accident hazards can often be identified and reduced or eliminated. Necessary elements for an accident-prone situation include the presence of the hazard itself, together with the exposed and susceptible population. The degree of exposure depends primarily on the proximity of the hazard to the population. Hazardous activities can include construction, demolition, transportation, maintenance and repair activities, the creation of noisy environments, and certain military activities. The proper operation, maintenance, and repair of aircraft, vehicles, and equipment carry important safety implications. Any facility or human-use area with potential explosive or other rapid oxidation processes creates unsafe environments for nearby populations. Extremely noisy environments can also mask verbal or mechanical warning signals such as sirens, bells, or horns. This analysis addresses the safety implications from construction, demolition, and other activities associated with the Proposed Action. The safety-related ROI for this EA corresponds to the footprints of the individual Proposed Action alternatives where construction, demolition and operational activities would occur.

All contractors performing construction and demolition activities on AFRC installations are responsible for following Federal OSHA regulations, as well as Air Force Occupational Safety and Health (AFOSH) standards set forth in AFI 91-202, *The Air Force Mishap Prevention Program*, and AFMAN 91-203, *Air Force Occupational Safety, Fire, and Health Standards*. Workers performing soil-removal activities within IRP sites are required to have OSHA 40-hour Hazardous Waste, Operations, and Emergency Response training.

Mission safety on AFRC installations is maintained through adherence to DoD, U.S. Air Force, and AFRC safety policies and plans. The U.S. Air Force safety program ensures the safety of personnel and the public on the installation by regulating mission activities. AFI 91-202 implements Air Force Policy Directive 91-2, *Safety Programs*, and provides guidance for implementing the safety program for all activities that occur on U.S. Air Force and AFRC installations.

### **3.10.1 AFFECTED ENVIRONMENT**

#### ***3.10.1.1 Alternative 1 – Youngstown ARS***

Youngstown ARS is a secure military installation with access limited to military personnel, civilian employees, military dependents, and approved visitors. Operations and maintenance activities conducted on the installation are performed in accordance with applicable U.S. Air Force/AFRC safety regulations, published U.S. Air Force Technical Orders, and standards prescribed by AFOSH requirements. Adherence to industrial-type safety procedures and directives ensures safe working conditions.

The 910<sup>th</sup> Security Forces provide security for personnel, facilities, and aircraft at Youngstown ARS. The 910<sup>th</sup> Civil Engineer Squadron's Emergency Management Flight conducts personnel training for emergency scenarios including chemical, biological, radiological, nuclear and high-yield explosives response in order to ensure the mission can continue in the wake of an attack. Aircraft rescue and firefighting (ARFF), structure firefighting, hazardous materials response, technical rescue and explosive ordinance disposal for the Youngstown Air Reserve Station is provided by the 910<sup>th</sup> Civil Engineer Squadron/Youngstown ARS Fire Department, a subordinate unit of the 910<sup>th</sup> Mission Support Group comprised of a mix of civilian and military firefighters. The Youngstown ARS Fire Department has mutual aid agreements with over a dozen local jurisdictions.



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Hangars at Youngstown ARS used for C-130H hangars do not meet UFC requirements for separation of aircraft from door and ceiling structural members. The wing has been operating in this manner since 1981 (U.S. AFRC, 2022b). Existing fire suppression and fall protection systems in Building 302 do not meet current standards. The existing parking ramp has adequate space to safely accommodate all eight proposed C-130J aircraft.

**3.10.1.2 Alternative 2 – Dobbins ARB**

Dobbins ARB is a secure military installation with access limited to military personnel, civilian employees, military dependents, and approved visitors. Operations and maintenance activities conducted on the installation are performed in accordance with applicable U.S. Air Force/AFRC safety regulations, published U.S. Air Force Technical Orders, and standards prescribed by AFOSH requirements. Adherence to industrial-type safety procedures and directives ensures safe working conditions.

The 94<sup>th</sup> Mission Support Group provides base security services and base disaster preparedness and training. Dobbins Fire and Emergency Services operates under the 94<sup>th</sup> Mission Support Group and provides fire prevention, fire hazard assessment and mitigation, and firefighting services at Dobbins ARB.

No safety waivers are currently in place for the affected hangars at Dobbins ARB. Existing hangars at Dobbins ARB used for C-130H operations meet the requirements for immediate conversion to C-130J operations (U.S. AFRC, 2022a). The maintenance facilities and aircraft parking ramp at Dobbins are also adequate for immediate conversion to the C-130J model.

**3.10.1.3 Alternative 3 – Minneapolis-St. Paul ARS**

Minneapolis-St. Paul ARS is a secure military installation with access limited to military personnel, civilian employees, military dependents, and approved visitors. Operations and maintenance activities conducted on the installation are performed in accordance with applicable U.S. Air Force/AFRC safety regulations, published U.S. Air Force Technical Orders, and standards prescribed by AFOSH requirements. Adherence to industrial-type safety procedures and directives ensures safe working conditions.

The 934<sup>th</sup> Security Forces Squadron provides safety and security services at Minneapolis-St. Paul ARS. The 934 AW Command Post is responsible for all alerting, reporting, and working with base operations to manage aircraft and coordinate emergency responses, including incidents on base and threats in the surrounding area. The Command Post is staffed by reservists and air national guardsmen. Firefighters with the 934<sup>th</sup> Civil Engineer Squadron respond to aircraft, structural, and other fires at Minneapolis-St. Paul ARS.

Existing hangars at Minneapolis-St. Paul ARS currently used for the C-130H do not meet UFC requirements for separation of aircraft from wing and door with ceiling structural members. Conversion to the C-130J model would not change the risk currently being assumed by the 934 AW (U.S. AFRC, 2022c). The existing parking ramp provides adequate space to safely accommodate six of the eight proposed C-130J aircraft.



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**3.10.1.4 Alternative 4 – Peterson SFB**

Peterson SFB is a secure military installation with access limited to military personnel, civilian employees, military dependents, and approved visitors. Operations and maintenance activities conducted on the installation are performed in accordance with applicable U.S. Air Force/AFRC safety regulations, published U.S. Air Force Technical Orders, and standards prescribed by AFOSH requirements. Adherence to industrial-type safety procedures and directives ensures safe working conditions.

The 21<sup>st</sup> Security Squadron is responsible for overall security at Peterson SFB, including general emergency assistance. ARFF, structural firefighting, emergency medical services, technical rescue, hazmat services, fire prevention and inspection for Peterson SFB is provided by the 21<sup>st</sup> Civil Engineer Squadron/Peterson Fire Department, a subordinate unit of the 21<sup>st</sup> Mission Support Group, comprised of a mix of civilian and military firefighters. Two fire stations are located on Peterson SFB.

Existing hangars at Peterson SFB used for the C-130H do not meet UFC requirements for separation of aircraft from wing and door with ceiling structural members. Conversion to the C-130J model would not change the risk currently being assumed by the 302 AW (U.S. AFRC, 2022d). The existing parking ramp provides adequate space to safely accommodate all eight proposed C-130J aircraft. Existing fire suppression and fall protection systems in Building 210 and Building 214 do not meet current standards.

**3.10.2 ENVIRONMENTAL CONSEQUENCES**

An increased risk for bodily injury, illness, death, or property damage from the Proposed Action would be considered an adverse impact on safety. Impacts associated with health and safety would be considered significant if the Proposed Action were to:

- Substantially increase risks associated with the safety of construction personnel, contractors, AFRC personnel or the local community.
- Hinder the ability to respond to an emergency.
- Introduce a new health or safety risk for which the AFRC is not prepared or does not have adequate management and response plans in place.

No significant adverse impact on safety would be anticipated under any of the Proposed Action alternatives.

**3.10.2.1 Alternative 1 – Youngstown ARS**

Short-term, minor impacts on contractor health and safety could occur from implementation of the Proposed Action Alternative 1 at Youngstown ARS. The short-term risk associated with work performed by demolition and construction contractors would slightly increase at Youngstown ARS during the normal workday, as construction and demolition activity levels would increase. Existing hangars at Youngstown ARS used for C-130H hangars do not meet UFC requirements for separation of aircraft from wing and door to ceiling structural members. Conversion to C-130J would not change the risk currently being assumed by 910 AW (U.S. AFRC, 2022b). Following facility modification and aircraft recapitalization, a safety waiver would be obtained for Building 305 for door and ceiling height aircraft clearance. Minor safety waivers would be obtained for C-130J use in Building 295 and Building 302 due to nose-pocket and building wall



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separation at both locations. Alternative 1 would not pose new or unacceptable safety risks to installation personnel or activities at the installation but would enable Youngstown ARS to meet future mission objectives at the installation and conduct or meet mission requirements in a safe operating environment. No long-term impacts on safety would be expected.

Building 295 and Building 302 are co-located with areas of known or suspected AFFF-related contamination with low and medium environmental health risks, respectively (**Section 3.7.1.1**). However, implementation of Alternative 1 is unlikely to require excavation or dewatering activities. Contractors working within these sites will be notified of the presence and nature of the known contaminants, access restrictions, institutional controls, and land use controls specific to the potentially impacted site prior to beginning work. If excavation is required at either site, land use controls will be evaluated and addressed by evaluating the project to ensure continued protectiveness for human health and the environment, and AFCEC will be consulted to ensure proper coordination. Construction contractor employees are unlikely to encounter ACM or LBP within the buildings proposed for modification under Alternative 1. All contractors would be required to follow and implement AFOSH and OSHA safety standards to establish and maintain safety procedures, which would mitigate short-term risks.

As previously stated, the existing parking ramp at Youngstown ARS provides adequate space to safely accommodate all eight C-130J aircraft. The ramp would require re-striping and relocation of mooring points to maintain adequate safety separations for the larger C-130J aircraft. A fume vent system would be installed to properly ventilate the new composite materials shop to protect worker safety during operations. Safety waivers for Buildings 295, 302, and 305 would need to be obtained due to building and aircraft clearance requirements.

Because there would be measures in place to protect worker safety during construction, and because implementation of Alternative 1 would not hinder the ability to respond to an emergency or introduce a new health or safety risk to Youngstown ARS (with the appropriate safety waivers), no significant impacts to safety or occupational health would occur. Although existing fire suppression and fall protection systems in Building 302 do not meet current standards, development of this facility for IOC functionality would neither worsen nor address existing risks, nor introduce new risks. Long term projects to address these systems and further reduce the need for safety waivers could be implemented in the future.

**3.10.2.2 Alternative 2 – Dobbins ARB**

Short-term, minor impacts on contractor health and safety could occur from implementation of the Proposed Action Alternative 2 at Dobbins ARB. The short-term risk associated with work performed by demolition and construction contractors would slightly increase at Dobbins ARB during the normal workday, as construction and demolition activity levels would increase. Following implementation of facility modification to achieve IOC for the C-130J, a safety risk buffer of four feet (from the recommended 15 foot separation between the aircraft nose and hangar wall) would be accepted for Building 731 for C-130J fuel cell maintenance. Alternative 2 would not pose new or unacceptable safety risks to installation personnel or activities at the installation but would enable Dobbins ARB to meet future mission objectives at the installation and conduct or meet mission requirements in a safe operating environment. No long-term impacts on safety would be expected.



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There is no record of AFFF release at or near Building 831 or Building 838. Additionally, modifications proposed to these facilities under Alternative 2 would not involve excavation or dewatering. Therefore, facility modification activities would not impact active IRP sites, and the risk of human exposure to these contaminants during facility modification or operations is unlikely.

ACM and LBP surveys would be required for any areas that may be disturbed by the project activities prior to beginning any modifications required for Building 831. If ACM or LBP are identified in the work areas, all work involving disturbance or removal of ACM will adhere to provisions described in AFI 32-1001, *Civil Engineer Operation*; and Rules and Regulations of the State of Georgia Chapter 391-3-1-.02(9)(b)7, *Emission Standard for Asbestos*; Chapter 391-3-14, *Rules for Asbestos Removal and Encapsulation*; and Chapter 391-3-4-.01(5), *Asbestos-Containing Waste*. All work involving disturbance or removal of LBP will be managed in accordance with AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*, and Rules and Regulations of the State of Georgia Subject 391-3-24, *Lead-Based Paint Hazard Management*. Therefore, potential risks to construction contractor employees from ACM or LBP would be minimized. All contractors would be required to follow and implement AFOSH and OSHA safety standards to establish and maintain safety procedures, which would mitigate short-term risks.

A fume vent system would be installed to properly ventilate the new composite materials shop to protect worker safety during operations. As previously stated, a minor safety risk buffer of four feet (from the recommended 15 foot separation between the aircraft nose and hangar wall) would be accepted in Building 731 for C-130J fuel cell maintenance.

Because there would be measures in place to protect worker safety during construction, and because Alternative 2 would not hinder the ability to respond to an emergency or introduce a new health or safety risk to Dobbins ARB with the recommended four-foot safety buffer in Building 731, no significant impacts to safety or occupational health would occur.

### ***3.10.2.3 Alternative 3 – Minneapolis-St. Paul ARS***

Short-term, minor impacts on contractor health and safety could occur from implementation of Alternative 3 at Minneapolis-St. Paul ARS. The short-term risk associated with work performed by demolition and construction contractors would slightly increase at Minneapolis-St. Paul ARS during the normal workday, as construction and demolition activity levels would increase. Although existing hangars at Minneapolis-St. Paul ARS do not meet UFC requirements for separation between wing and door with ceiling structural members, the Proposed Action would not change the risk being assumed by the 934 AW (U.S. AFRC, 2022c). Building 821 currently has safety waivers for inadequate separation of aircraft from hangar doors and other aircraft in the south bay. These waivers would be extended or modified as needed for the C-130J model. New safety waivers would be required for door, interior, and length clearance deficiencies in Building 870. Alternative 3 would not pose new or unacceptable safety risks to installation personnel or activities at the installation but would enable Minneapolis-St. Paul ARS to meet future mission objectives at the installation and conduct or meet mission requirements in a safe operating environment. Although several new safety waivers would be required to achieve IOC, no long-term impacts on safety would be expected.



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Extending building 870 would likely require excavation within PRL Sites 9 and 10, which are considered low risk for exposure to contaminants (**Section 3.7.1.3**). Therefore, the risk of human exposure to these contaminants during facility modification activities is minimal. Contractors working within these sites will be notified of the presence and nature of the known contaminants, access restrictions, institutional controls, and land use controls specific to the site prior to beginning work. AFCEC would be consulted to ensure proper coordination. Because PRL Site 10 is co-located with the entire parking ramp, there is a potential to encounter AFFF-related contaminants in soil during mooring point relocation. Similar protective and coordination measures would be implemented as described above, which would minimize the potential risk to worker safety during construction.

ACM is known to be present in Building 821 (floor tile and mastic, gray colored vent caulk, and transite panels) and Building 822 (condensate pipe, asbestos cement board, and floor tile). LBP is also present within the interior of both buildings and on the exterior of Building 821. ACM and LBP surveys specific to areas that could be disturbed by modification activities within these buildings would be performed prior to beginning work. If ACM or LBP are detected, management controls or abatement measures would be performed according to the 934 AW Asbestos Management and Operating Plan and Minnesota Rule 7025, *Lead Paint Removal*, respectively, which would minimize the potential risk for construction contractor employees. All contractors would be required to follow and implement AFOSH and OSHA safety standards to establish and maintain safety procedures, which would mitigate short-term risks. Work within IRP sites would be coordinated with AFCEC and all access restrictions, institutional controls, and land use controls specific to the site would be implemented.

An extension or modification of the existing safety waiver would be required for Building 821 and new safety waivers would be required for Building 870 for door, interior height, width, and length clearance deficiencies for the C-130J. Re-stripping would be required to adjust taxiway positions in order to maintain aircraft safety separations for the longer C-130J, as would installation of new mooring points at each new aircraft parking position to ensure safe operations on the existing parking ramp.

Because there would be measures in place to protect worker safety during construction, and because Alternative 3 would not hinder the ability to respond to an emergency or introduce a new health or safety risk to Minneapolis-St. Paul ARS with the recommended safety waivers for Building 870 and Building 821, no significant impacts to safety or occupational health would occur. Long-term projects could be implemented at Minneapolis-St. Paul ARS, which would further reduce the number of waivers needed.

**3.10.2.4 Alternative 4 – Peterson SFB**

Short-term, minor impacts on contractor health and safety could occur from implementation of Alternative 4 at Peterson SFB. The short-term risk associated with work performed by demolition and construction contractors would slightly increase at Peterson SFB during the normal workday, as construction and demolition activity levels would increase. Existing hangars at Peterson SFB used for C-130H hangars do not meet UFC requirements for separation of aircraft from wing and door to ceiling structural members. Conversion to C-130J would not change the risk currently being assumed by 302 AW (U.S. AFRC, 2022d). Safety waivers would be required for Building 210 for interior height and length clearance deficiencies. Safety waivers would be required for Building 214 for inadequate separation distances between the C-130J



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aircraft and the hangar door. Alternative 4 would not pose new or unacceptable safety risks to installation personnel or activities at the installation but would enable Peterson SFB to meet future mission objectives at the installation and conduct or meet mission requirements in a safe operating environment. No long-term impacts on safety would be expected.

Extending Building 216 would likely require excavation within AFFF Site 4 (**Section 3.7.1.4**). As noted previously, AFFF Site 4 is considered high risk for AFFF-related contaminants in groundwater and low risk for soil contaminants. Contractors working within this site would be notified of the presence and nature of the known contaminants, access restrictions, institutional controls, and land use controls specific to the site prior to beginning work. Land use controls would be evaluated and addressed by evaluating the project to ensure continued protectiveness for human health and the environment, and AFCEC would be consulted to ensure proper coordination. While Building 502 is the location of AFFF Site 2, which is considered medium risk for groundwater contaminants and low risk for soil contaminants, the nature of the proposed work is unlikely to disturb impacted media or expose workers to site contamination. However, the same management activities previously described would be implemented for work at this location to protect worker health and safety.

LBP surveys would be required for any areas that may be disturbed by the proposed building modification activities under Alternative 4. If ACM or LBP are identified in the work areas, provisions described in Chapter 15 of AFI 32-1001, *Civil Engineer Operations*, AFMAN 32-7002, *Environmental Compliance and Pollution Prevention*, and Colorado State Regulation 19, *Lead-Based Paint Abatement* would be implemented prior to beginning any work that might disturb these materials.

All contractors would be required to follow and implement AFOSH and OSHA safety standards to establish and maintain safety procedures, which would mitigate short-term risks. Work within IRP sites would be coordinated with AFCEC and all access restrictions, institutional controls, and land use controls specific to the site would be implemented.

The airfield ramp would be re-striped to adjust taxiway positions in order to maintain aircraft safety separations for the C-130J model. Similarly, new mooring points would be installed to ensure safe aircraft operations on the parking ramp. Safety waivers would be required for Building 210 for interior height and length clearance deficiencies, and for Building 214 for inadequate separation distances between the C-130J aircraft and the hangar door.

Because there would be measures in place to protect worker safety during construction, and because Alternative 4 would not hinder the ability to respond to an emergency or introduce a new health or safety risk to Peterson SFB with the recommended safety waivers for Building 210 and Building 214, no significant impacts to safety or occupational health would occur. Although existing fire suppression and fall protection systems in Building 210 and Building 214 do not meet current standards, development of this facility for IOC functionality would neither worsen nor address existing risks, nor introduce new risks. Long term projects to address these systems and to further reduce future needs for safety waivers could be implemented in the future.



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**3.10.3 CUMULATIVE EFFECTS**

***3.10.3.1 Alternative 1 – Youngstown ARS***

Short-term, minor impacts on contractor health and safety could occur from implementation of FOC projects under Alternative 1 at Youngstown ARS. These impacts would be similar to those described for IOC projects and would not be cumulatively significant when considered with the Proposed Action. Future projects that could be implemented to achieve FOC for the C-130J at Youngstown ARS include modifying locker rooms in Building 302, moving the nose pocket of Building 302 back approximately 3 feet, and upgrading Building 302 building systems (e.g., fire suppression and fall protection) to achieve compliance with current standards. Moving the nose pocket of Building 302 would provide the recommended separation distance between the aircraft and the structure, eliminating the need for a safety waiver at this location. Upgrades to building systems would bring the systems into compliance with current standards. When considered with the Proposed Action, long term, minor beneficial cumulative impacts to operational safety and occupational health would result from implementation of these potential future projects.

***3.10.3.2 Alternative 2 – Dobbins ARB***

Short-term, minor impacts on contractor health and safety could occur from implementation of FOC projects under Alternative 2 and other installation projects at Dobbins ARB. These impacts would be similar to those described for IOC projects and would not be cumulatively significant when considered with the Proposed Action. The future construction of munitions storage and repair of airfield pavements would improve overall operational safety and occupational health at Dobbins ARB. Potential future modifications to Building 746 include demolishing a structure in the hangar bay and modifying the hangar door cutout. These modifications would not have a significant beneficial or adverse cumulative impact on operational safety and occupational health. Overall, no significant cumulative impacts to operational safety would occur under Alternative 2.

***3.10.3.3 Alternative 3 – Minneapolis-St. Paul ARS***

Short-term, minor impacts on contractor health and safety could occur from implementation of FOC projects under Alternative 3 at Minneapolis-St. Paul ARS. These impacts would be similar to those described for IOC projects and would not be cumulatively significant when considered with the Proposed Action. Several potential future FOC projects could result in cumulative beneficial operational impacts on safety and occupational health at Minneapolis-St. Paul ARS. If ACM or LBP is determined to be present in Buildings 801, 802, and 803, demolishing these buildings would remove these toxic substances in accordance with all regulations, law, and policies. This would eliminate ongoing potential personnel exposure at these locations. Proposed modifications to Building 821, including constructing a 225-foot by 30-foot eyebrow, could eliminate the need for existing safety waivers at this location. The addition of approximately 29,000 square feet of pavement north of Building 821 would improve aircraft operational safety in this area by providing adequate clear space for aircraft movement. When considered with the Proposed Action, long term, minor beneficial cumulative impacts to operational safety and occupational health would result from implementation of these potential future projects.



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**3.10.3.4 Alternative 4 – Peterson SFB**

Short-term, minor impacts on contractor health and safety could occur from implementation of FOC projects under Alternative 4 at Peterson SFB. These impacts would be similar to those described for IOC projects and would not be cumulatively significant when considered with the Proposed Action. Future projects that could be implemented to achieve FOC for the C-130J at Peterson SFB include constructing a 20-foot bay eyebrow to the Building 210 right bay, constructing a 160-foot by 20-foot eyebrow to the Building 214 north bay, and upgrading building systems (e.g., fire suppression and fall protection) to achieve compliance with current standards. The potential structural modifications to Building 210 and Building 214 would eliminate the need for safety waivers at these locations. Upgrades to building systems would bring the systems into compliance with current standards. When considered with the Proposed Action, long term, minor beneficial cumulative impacts to operational safety and occupational health would result from implementation of these potential future projects.

**3.10.4 NO-ACTION ALTERNATIVE**

Under the No-Action Alternative, none of the proposed building modifications or additions would occur, and existing conditions would persist with the continued maintenance and operation of C-130H aircraft. There would be no short term elevated construction-related risks to construction employees or base personnel, and no new occupational health or safety risks to personnel would be introduced. The No-Action Alternative would not hinder the ability to respond to emergencies at any of the proposed candidate bases. Therefore, no impacts to safety and occupational health would be incurred.



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**4.2 LIST OF PERSONS CONSULTED**

To be completed upon circulation of the Draft EA.



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**C-130J Recapitalization  
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**C-130J Recapitalization  
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**APPENDIX A AGENCY COORDINATION AND PUBLIC INVOLVEMENT**



**C-130J Recapitalization  
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**List of Agencies Contacted – Youngstown ARS**

**Federal Agencies**

U.S. Environmental Protection Agency, Region 5  
Debra Shore, Regional Administrator  
77 W. Jackson Boulevard  
Chicago, Illinois 60604

U.S. Fish and Wildlife Service  
Angela Boyer, Endangered Species Coordinator  
4625 Morse Rd Suite 104  
Columbus, OH 43230

U.S. Federal Aviation Administration  
Anita Lutz  
Air Traffic Manager  
Youngstown Air Traffic Control Tower  
3976 King Graves Road  
Vienna, OH 44473

**State/Local Agencies**

Ohio Department of Natural Resources  
John Kessler  
Office of Real Estate & Land Management  
2045 Morse Road Building E-2  
Columbus OH 43229-6693

Ohio Environmental Protection Agency  
Laurie Stevenson, Director  
P.O. Box 1049  
Columbus, Ohio 43216-1049

Ohio State Historic Preservation Office  
Burt Logan  
Executive Director & CEO, Ohio History  
Connection  
800 E. 17th Avenue  
Columbus, Ohio 43211-2474

Vienna Township  
Pete Pizzulo, Zoning Inspector  
P.O. Box 593  
Vienna, Ohio 44473

Vienna Township  
Heidi Brown, Trustee  
P.O. Box 593  
Vienna, Ohio 44473

Vienna Township  
Phil Pegg, Trustee  
P.O. Box 593  
Vienna, Ohio 44473

Vienna Township  
Richard Dascenzo, Jr., Trustee  
P.O. Box 593  
Vienna, Ohio 44473

Trumbull County Planning Commission  
Julie Green, Director  
185 East Market Street NE, Suite A  
2nd Floor  
Warren, Ohio 44481

Western Reserve Port Authority  
Northeast Ohio Development & Finance  
Authority  
John Moliterno, Executive Director  
240 North Champion Street  
Youngstown, OH 44503

Youngstown-Warren Regional Airport  
Western Reserve Port Authority  
Afrodite Altieri  
Security & Compliance Coordinator  
1453 Youngstown-Kingsville Road NE  
Vienna, OH 44473

**Native American Tribes**

Clint Halftown, Nation Representative  
Cayuga Nation  
PO Box 803  
Seneca Falls NY 13148  
[sharon.leroy@cayuganation-nsn.gov](mailto:sharon.leroy@cayuganation-nsn.gov)



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Douglas G. Lankford, Chief  
Miami Tribe of Oklahoma  
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Miami, OK 74355  
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Oneida, WI 54155-0365  
[thill7@oneidanation.org](mailto:thill7@oneidanation.org)

Sidney Hill, Chief  
Onondaga Nation  
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Nedrow, NY 13120  
[admin@onondaganation.org](mailto:admin@onondaganation.org)

Ethel E. Cook, Chief  
Ottawa Tribe of Oklahoma  
P.O. Box 110  
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Michael Conners, Ronald LaFrance, Jr., Beverly  
Cook, Chiefs  
St. Regis Mohawk Tribe  
71 Margaret Terrance Memorial Way  
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[abero@srmt-nsn.gov](mailto:abero@srmt-nsn.gov)

Matthew B. Pagels, President  
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12837 Route 438  
Irving, NY 14081  
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[cdiebold@sctribe.com](mailto:cdiebold@sctribe.com)

Roger Hill, Chief  
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Basom, NY 14013  
[tonseneca@aol.com](mailto:tonseneca@aol.com)

Tom Jonathan, Chief  
Tuscarora Nation  
5226 Walmore Road  
Lewistown, NY 14092  
[tuscnationhouse@gmail.com](mailto:tuscnationhouse@gmail.com)

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Wyandotte Nation  
64700 East Highway 60  
Wyandotte, OK 74370  
[bfriend@wyandotte-nation.org](mailto:bfriend@wyandotte-nation.org)





DEPARTMENT OF THE AIR FORCE  
AIR FORCE RESERVE COMMAND

30 March 2023

MEMORANDUM FOR DISTRIBUTION

FROM: 910 MSG/CEV  
3976 King Graves Road  
Vienna OH 44473

SUBJECT: Preparation of an Environmental Assessment for Recapitalization of the C-130H Aircraft to the C-130J Model

1. The United States (U.S.) Air Force Reserve Command (AFRC) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts resulting from the congressionally approved recapitalization of one squadron of eight C-130H aircraft to the C-130J model, and make modifications to infrastructure (e.g., hangars, ramps) required to accommodate the C-130J model, at one of four AFRC installations: Dobbins Air Reserve Base (ARB), Georgia; Minneapolis-St. Paul Air Reserve Station (ARS), Minnesota; Peterson Space Force Base (SFB), Colorado; or Youngstown ARS, Ohio. The Proposed Action includes only the near-term base facility modifications required to achieve minimal Initial Operations Capability (IOC) to accept the C-130J aircraft and mission set.

2. The *purpose* of the Proposed Action is to replace existing aircraft at one of the bases with the congressionally approved eight state-of-the-art C-130J aircraft. The proposed recapitalization of the C-130H to the C-130J model is *needed* to respond to evolving mission needs and operational demands, particularly in response to weather-related events. The C-130J model performance enhances situational awareness in low-level flying compared to the C-130H model.

3. The EA will analyze the potential range of environmental impacts that could result from the Proposed Action. The EA will analyze the following four locations as potential alternatives:

a. Alternative 1 - Youngstown ARS: near-term modifications would include establishing a composite material maintenance shop in Building 302, (requiring installation of a fume vent system with exhaust to building exterior) and enclosing an area to provide environmentally conditioned space to store engines and props in Building 203. An elevated mechanical room (585 square feet) in the hangar nose pocket of Building 295 would also need to be demolished to accommodate for the increased length of the new J aircraft. The airfield ramp will also require re-striping to adjust taxiway positions in order to maintain aircraft safety separations (see **Figure 1**).

b. Alternative 2 - Dobbins ARB: near-term modifications would include establishing a composite material maintenance shop in Building 831 (requiring installation of a fume vent system with exhaust to building exterior), installing a propeller balancing table in the engine shop bay of Building 838, and relocating ramp mooring points on the airfield (see **Figure 2**).

c. Alternative 3 - Minneapolis-St. Paul ARS: near-term modifications would include a 20-foot by 14-foot by 14-foot nose pocket extension on Hangar 870 to enable the aircraft tow truck to remain on level surface and out of the weather during aircraft towing procedures (see **Figure 3**). The airfield ramp will require re-striping to adjust taxiway positions in order to maintain aircraft safety separations and new



mooring points for each new parking spot. Additionally, a composite material maintenance shop would be established in Building 710, and the sheet metal shop would be relocated from Hangar 821 to the space adjacent to the composite material maintenance in Building 710. Finally, a new propeller balancing table would be installed in the engine shop of Building 822.

d. Alternative 4 - Peterson SFB: near-term modifications would include an approximately 30-foot by 36-foot addition to the northwest side of Building 216, to establish a composite material maintenance shop, installation of the new propeller balancing table in the engine shop bay of Building 502, re-striping the airfield ramp, and providing new mooring points for each parking spot (see **Figure 4**).

4. The EA will also analyze the No Action Alternative, which reflects the status quo, in part as a baseline for comparison of potential effects from the Proposed Action. Under the No-Action Alternative, the Air Force Strategic Basing Board direction to recapitalize one squadron of eight C-130H aircraft to the C-130J at one of the four AFRC installations would not be realized, and aircraft modernization would not occur. The four AFRC installations C-130H squadrons would continue to operate and fulfill current missions. Modifications to infrastructure (e.g., hangars, ramps) required to accommodate the C-130J model would not occur. No new beneficial or adverse impacts to environmental resources would occur, and long-term cost savings associated with recapitalization due to manpower decrements and decreased support aircraft flying time would not occur.

5. The EA will be prepared in compliance with the National Environmental Policy Act (NEPA) of 1969 (42 United States Code 4321, *et seq.*), the Council on Environmental Quality NEPA Implementing Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the Air Force Environmental Impact Analysis Process (32 CFR Part 989).

6. As part of this EA, we request your assistance in identifying any potential areas of environmental impact to be assessed in this analysis. For questions, comments, or input on the NEPA process and this Proposed Action, please contact Mr. Bill Fink, via telephone at (330) 609-1557, or via email at [william.fink@us.af.mil](mailto:william.fink@us.af.mil).

Sincerely,

FINK.WILLIAM.E.13  
26345004

Digitally signed by  
FINK.WILLIAM.E.1326345004  
Date: 2023.03.31 16:17:21 -04'00'

WILLIAM E. FINK, CIV, DAF  
Chief of Environmental Engineering

Attachments:

1. Figure 1: Alternative 1—Youngstown ARS
2. Figure 2: Alternative 2—Dobbins ARS
3. Figure 3: Alternative 3—Minneapolis-St. Paul ARS
4. Figure 4: Alternative 4—Peterson SFB





May 9, 2023

In reply, please refer to:  
2023-TRU-57662

William E. Fink, CIV, DAF  
Department of the Air Force  
Air Force Reserve Command  
910 MSG/CEV  
3976 King Graves Road  
Vienna, Ohio 44473

RE: Preparation of an Environmental Assessment for Recapitalization of the C-130H Aircraft to the C-130J Model

Dear Mr. Fink:

This letter is in response to correspondence received on April 11, 2023. Our comments are made pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, and the associated regulations at 36 CFR Part 800.

The United States (U.S.) Air Force Reserve Command (AFRC) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts resulting from the congressionally approved recapitalization of one squadron of eight C-130H aircraft to the C-130J model, and make modifications to infrastructure (e.g., hangars, ramps) required to accommodate the C-130J model, at one of four AFRC installations. Youngstown ARS in Ohio is listed as Alternative 1 of the four installations being considered for this proposed action.

The information submitted does not provide specific project details for supporting infrastructure that may be needed to fulfill the requirements of this project. Due to the unknown dates of construction for existing infrastructure, our office requests the appropriate level of National Historic Preservation Act (NHPA) review if Youngstown ARS is selected as the installation for this proposed action. We have no additional comments or questions regarding the areas of environmental impact at this time.

If you have questions, please contact me at [jwilliams@ohiohistory.org](mailto:jwilliams@ohiohistory.org). Thank you for your cooperation. We look forward to further consultation regarding this proposed action.

Sincerely,

Joy Williams, Project Reviews Manager  
Resource Protection and Review

*"Please be advised that this is a Section 106 decision. This review decision may not extend to other SHPO programs."*

RPR Serial No: 1097781





**DEPARTMENT OF THE AIR FORCE  
AIR FORCE RESERVE COMMAND**

29 June 2023

Sent via email to: JWilliams@ohiohistory.org

William Fink, CIV, DAF  
Chief of Environmental Engineering  
910 MSG/CEV  
3976 King Graves Road  
Vienna OH 44473

Joy Williams  
Project Reviews Manager  
Resource Protection and Review  
Ohio History Connection  
800 E. 17<sup>th</sup> Avenue  
Columbus OH 43211-2474

**SUBJECT:** Section 106 National Historic Preservation Act Review for Recapitalization of the C-130H Aircraft to the C-130J Model (Reference 2023-TRU-57662)

Dear Ms. Williams:

Thank you for your 09 May 2023 letter (Reference 2023-TRU-57662) in reply to our request for comment on the above-referenced action and associated Environmental Assessment (EA) currently being prepared by United States (U.S.) Air Force Reserve Command (AFRC). In your reply letter, you provided comments and requested additional information to support a review of the action pursuant to Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and the associated regulations at 36 Code of Federal Regulations (CFR) Part 800.

We offer the following information in response to your inquiry and to further Section 106 NHPA review and consultation:

1. As stated in our letter dated 30 March 2023, Youngstown Air Reserve Station (ARS) is one of four alternatives being considered for the proposed recapitalization of the C-130H aircraft with the C-130J model. If selected, near-term facility modifications needed to achieve Initial Operations Capability (IOC) for the C-130J at Youngstown ARS would include establishing a composite material maintenance shop in Building 302, (requiring installation of a fume vent system with exhaust to building exterior) and enclosing an area to provide environmentally conditioned space to store engines and props in Building 203. An elevated mechanical room (585 square feet) in the hangar nose pocket of Building 295 would also need to be demolished to accommodate for the increased length of the new C-130J aircraft. The airfield ramp will also require re-striping to adjust taxiway positions in order to maintain aircraft safety separations. These are hereinafter referenced as the Proposed Undertaking for the purposes of this communication.
2. To support the EA process and to further NHPA consultation, an Area of Potential Effect (APE) has been delineated for the Proposed Undertaking and includes the immediate physical footprint of ramp re-



striping as well as buildings that would be modified to achieve IOC for the C-130J at Youngstown ARS, including Building 203, Building 295, and Building 302. Please refer to the enclosed **Figure 1** for the geographic location and extent of these facilities included in the APE.

3. If selected, the Proposed Undertaking at Youngstown ARS would commence in Quarter 4 2023 and would need to be completed prior to the delivery of the first C-130J aircraft, which is currently anticipated by April 2024.

4. Building 203 was constructed in 1998, Building 295 was constructed in 1996, and Building 302 was constructed in 1983. All three buildings are less than 50 years old and are therefore not eligible for listing to the National Register of Historic Places (NRHP) based on age alone. Exceptions to this age requirement are included as NRHP Criteria Consideration G and would apply if a structure less than 50 years in age is considered exceptionally important. Factors considered under Criteria Consideration G include, but are not limited to, whether a building is unique from a historical perspective (i.e., associated with a specific event), constitutes National Park Service rustic architecture, is a Veterans Administration Hospital, or is considered a Post-World War II or Cold War property uniquely representative of post-war urban policy or contribution to the Cold War arms race (National Park Service, 1990). Based on our records and evaluation to date, we conclude that none of the buildings associated with the Proposed Undertaking would be considered exceptionally important under NRHP Criteria Consideration G.

5. Youngstown ARS has completed a Cultural Resources Contingency Plan (CRCP) to assist facility personnel in managing the discovery of any unidentified cultural resource on the base property. The CRCP references four previous cultural resources investigations that have occurred within the base. None of these previous surveys identified cultural resources within the installation boundaries.

6. Youngstown ARS has been granted an Integrated Cultural Resources Management Plan (ICRMP) waiver, with concurrence from the Ohio History Connection, which is valid until 30 April 2026. The waiver was granted because surveys at Youngstown ARS have determined that no historic properties or other cultural resources are present in areas surveyed at the base. The ICRMP Waiver applies only to lands and facilities reflected in the reports that informed the initial determination. If significant cultural resources or historic properties are discovered during the five year period (e.g., while implementing the Proposed Action), then the Installation will re-evaluate the need to prepare and maintain an ICRMP.

7. Accidental or unanticipated discoveries of archaeological resources may occur on U.S. military controlled lands. In the event that accidental or unanticipated discoveries occur, potentially damaging activities will immediately cease and notification and protection efforts listed in the CRCP will be implemented.

Based on the above information, we request your concurrence with our determination that the Proposed Undertaking would have no adverse effect to historic architectural or cultural resource. Please feel free to contact me via telephone at (330) 609-1557, or via email at [william.fink@us.af.mil](mailto:william.fink@us.af.mil), should you have further questions or need for additional information regarding this communication.

Sincerely,

FINK.WILLIAM.E.1326 345004

Digitally signed by  
FINK.WILLIAM.E.1326345004  
Date: 2023.07.03 08:57:52 -04'00'

WILLIAM E. FINK, CIV, DAF  
Chief of Environmental Engineering

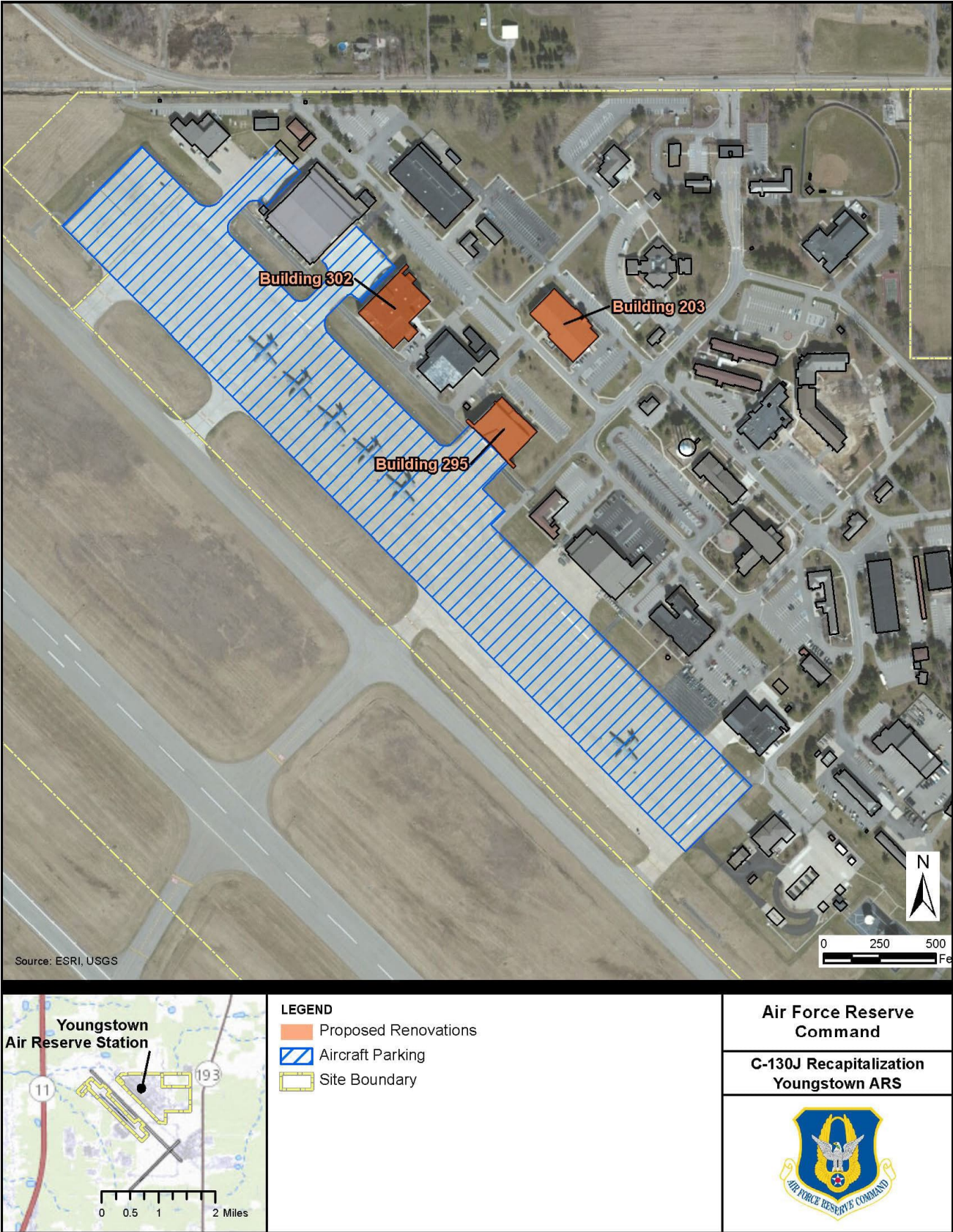


Attachments:

1. Figure 1: Alternative 1 - Youngstown ARS



Figure 1: Alternative 1 - Youngstown ARS







**DEPARTMENT OF THE AIR FORCE  
AIR FORCE RESERVE COMMAND**

30 March 2023

Colonel Jeffrey A. Van Dootingh  
Commander  
910 AW/CC  
3976 King Graves Road, Unit 10  
Vienna OH 44473-5912

Jesse Bergevin, Historical Resources Specialist  
Oneida Indian Nation of New York  
2037 Dream Catcher Plaza  
Oneida NY 13421

SUBJECT: Initiating Consultation on the Proposed Recapitalization of the C-130H Aircraft to the C-130J Model

Dear Specialist Bergevin:

The United States (U.S.) Air Force Reserve Command (AFRC) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts resulting from the congressionally approved recapitalization of one squadron of eight C-130H aircraft to the C-130J model, and make modifications to infrastructure (e.g., hangars, ramps) required to accommodate the C-130J model, at one of four AFRC installations: Dobbins Air Reserve Base (ARB), Georgia; Minneapolis-St. Paul Air Reserve Station (ARS), Minnesota; Peterson Space Force Base (SFB), Colorado; or Youngstown ARS, Ohio. The Proposed Action includes only the near-term base facility modifications required to achieve minimal Initial Operations Capability (IOC) to accept the C-130J aircraft and mission set.

The EA will analyze the following four locations as potential alternatives:

- a. Alternative 1 - Youngstown ARS: near-term modifications would include establishing a composite material maintenance shop in Building 302, (requiring installation of a fume vent system with exhaust to building exterior) and enclosing an area to provide environmentally conditioned space to store engines and props in Building 203. An elevated mechanical room (585 square feet) in the hangar nose pocket of Building 295 would also need to be demolished to accommodate for the increased length of the new J aircraft. The airfield ramp will also require re-striping to adjust taxiway positions in order to maintain aircraft safety separations (see **Figure 1**).
- b. Alternative 2 - Dobbins ARB: near-term modifications would include establishing a composite material maintenance shop in Building 831 (requiring installation of a fume vent system with exhaust to building exterior), installing a propeller balancing table in the engine shop bay of Building 838, and relocating ramp mooring points on the airfield (see **Figure 2**).



c. Alternative 3 - Minneapolis-St. Paul ARS: near-term modifications would include a 20-foot by 14-foot by 14-foot nose pocket extension on Hangar 870 to enable the aircraft tow truck to remain on level surface and out of the weather during aircraft towing procedures (see **Figure 3**). The airfield ramp will require re-striping to adjust taxiway positions in order to maintain aircraft safety separations and new mooring points for each new parking spot. Additionally, a composite material maintenance shop would be established in Building 710, and the sheet metal shop would be relocated from Hangar 821 to the space adjacent to the composite material maintenance in Building 710. Finally, a new propeller balancing table would be installed in the engine shop of Building 822.

d. Alternative 4 - Peterson SFB: near-term modifications would include an approximately 30-foot by 36-foot addition to the northwest side of Building 216, to establish a composite material maintenance shop, installation of the new propeller balancing table in the engine shop bay of Building 502, re-striping the airfield ramp, and providing new mooring points for each parking spot (see **Figure 4**).

Pursuant to Section 306108 of the National Historic Preservation Act of 1966 and its implementing regulations at 36 Code of Federal Regulations Part 800, as amended, the AFRC would like to initiate government-to-government consultation concerning the undertaking to allow you the opportunity to identify any comments, concerns, and suggestions you might have. As we move forward through this process, we welcome your participation and input. The project limits on the enclosed figures collectively serve as the Areas of Potential Effect (APE) for the Proposed Action alternatives. Please let us know if you are aware of any properties of cultural and religious significance within or in the vicinity of the APEs, which you would believe this undertaking may adversely affect.

For questions, comments, or input on the NEPA process and this Proposed Action, please contact Mr. Bill Fink, via telephone at (330) 609-1557, or via email at [william.fink@us.af.mil](mailto:william.fink@us.af.mil).

Sincerely,

VAN DOOTINGH,JEFFREY.A.1073362233 | Digitally signed by VAN DOOTINGH,JEFFREY.A.1073362233  
Date: 2023.03.31 09:42:22 -0400

JEFFREY A. VAN DOOTINGH, Colonel, USAF  
Commander

Attachments:

1. Figure 1: Alternative 1—Youngstown ARS
2. Figure 2: Alternative 2—Dobbins ARS
3. Figure 3: Alternative 3—Minneapolis-St. Paul ARS
4. Figure 4: Alternative 4—Peterson SFB



**Sanford, Paul**

---

**From:** FINK, WILLIAM E CIV USAF AFRC 910 MSG/CEV <william.fink@us.af.mil>  
**Sent:** Monday, April 24, 2023 12:48 PM  
**To:** Jesse Bergevin  
**Subject:** RE: Proposed Recapitalization of the C-130H Aircraft to the C-130J Model

**This Message Is From an External Sender**

This message came from outside your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Report Suspicious

Good Afternoon,

Thank you very much for your review, reply and concurrence that you do not anticipate any of the four proposed alternatives will affect historic properties related to Oneida ancestors. Again, thank you for your time; it is very much appreciated.

Thanks,

Bill Fink

Flight Chief - Environmental Engineering, 910 MSG/CEV  
DSN: 346-1557 Comm: 330-609-1557

---

**From:** Jesse Bergevin <jbergevin@oneida-nation.org>  
**Sent:** Monday, April 24, 2023 12:38 PM  
**To:** FINK, WILLIAM E CIV USAF AFRC 910 MSG/CEV <william.fink@us.af.mil>  
**Subject:** [URL Verdict: Neutral][Non-DoD Source] Proposed Recapitalization of the C-130H Aircraft to the C-130J Model

Mr. Fink,

The Oneida Indian Nation has reviewed the proposed Recapitalization of the C-130H Aircraft to the C-130J Model project and do not anticipate any of the four proposed alternatives will affect historic properties related to Oneida ancestors.

Please let me know if there are any questions.

Best Regards,

**JESSE BERGEVIN**  
Historical Resources Specialist

**ONEIDA INDIAN NATION**

---

P: 315.829.8463  
2037 Dream Catcher Plaza



**C-130J Recapitalization  
Draft Environmental Assessment**

**List of Agencies Contacted – Dobbins ARB**

**Federal Agencies**

U.S. Environmental Protection Agency, Region 4  
Office of the Regional Administrator  
Ms. Mary Walker, Regional Administrator  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street, SW  
Atlanta, GA 30303-3104

U.S. Army Corps of Engineers  
South Atlantic Division  
60 Forsyth Street SW  
Atlanta, GA 30303-8801

U.S. Fish and Wildlife Service  
Southeast Region, Region 4  
1875 Century Blvd., Suite 200  
Atlanta, GA 30345

**State/Local Agencies**

Georgia Environmental Protection Division  
Georgia Department of Natural Resources  
2 Martin Luther King Jr. Drive SE  
Suite 1456, East Tower  
Atlanta, GA 30334

Georgia Historic Preservation Division  
Ms. Jennifer Dixon  
Georgia Department of Community Affairs  
60 Executive Park South, NE  
Atlanta, GA 30329

Georgia State Parks and Historic Sites  
Georgia Department of Natural Resources  
2600 Highway 155 SW  
Stockbridge, GA 30281

Cobb County Community Development  
Department  
P.O. Box 649  
Marietta, GA 30061

Cobb Chamber of Commerce  
P.O. Box 671868  
Marietta, GA 30006-0032

Cobb County Board of Commissioners  
100 Cherokee Street  
Marietta, GA 30090

Mr. Mike Boyce  
Cobb County Commission Chairman  
100 Cherokee Street  
Marietta, GA 30090

Mr. Rob Hosack  
Cobb County Manager  
100 Cherokee Street  
Marietta, GA 30090

Ms. Jessica Guinn  
Director, Cobb County Community Development  
Department  
P.O. Box 649  
Marietta, GA 30061

Cobb County Soil and Water Conservation  
District  
678 South Cobb Drive, Suite 150  
Marietta, GA 30060

Cobb County Department of Transportation  
1890 County Services Parkway  
Marietta, GA 30008  
Mr. Rusty Roth, Director

City of Marietta Department of Planning and  
Zoning Development Services  
P.O. Box 609  
Marietta, GA 30061-0609

Mr. William Bruton, Jr.  
Marietta City Manager  
205 Lawrence Street  
Marietta, GA 30060

Mr. Rich Buss  
Director, City of Marietta Parks, Recreation,  
and Facilities  
P.O. Box 609  
Marietta, GA 30061



**C-130J Recapitalization  
Draft Environmental Assessment**

City of Smyrna  
2800 King Street  
Smyrna, GA 30080

Atlanta Regional Commission  
229 Peachtree St NE, Suite 100  
Atlanta, GA 30303

**Native American Tribes**

Chief Wilson Yargee  
Alabama-Quassarte Tribal Town  
101 E Broadway Avenue  
Post Office Box 187  
Wetumka OK 74883

Chief William Harris  
Catawba Indian Nation  
611 East Main Street  
Rock Hill SC 29730

Principal Chief Chuck Hoskin, Jr.  
Cherokee Nation  
P.O. Box 948  
Tahlequah OK 74465-0948

Principal Chief Richard Sneed  
Eastern Band of Cherokee Indians  
88 Council House Loop  
Cherokee NC 28719

Chairman Stephanie A. Bryan  
Poarch Band of Creek Indians  
5811 Jack Springs Road  
Atmore AL 36502





DEPARTMENT OF THE AIR FORCE  
AIR FORCE RESERVE COMMAND



30 March 2023

MEMORANDUM FOR DISTRIBUTION

FROM: 94 MSG/CEV  
901 Industrial Drive  
Dobbins ARB, GA 30069

SUBJECT: Preparation of an Environmental Assessment for Recapitalization of the C-130H Aircraft to the C-130J Model

1. The United States (U.S.) Air Force Reserve Command (AFRC) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts resulting from the congressionally approved recapitalization of one squadron of eight C-130H aircraft to the C-130J model, and make modifications to infrastructure (e.g., hangars, ramps) required to accommodate the C-130J model, at one of four AFRC installations: Dobbins Air Reserve Base (ARB), Georgia; Minneapolis-St. Paul Air Reserve Station (ARS), Minnesota; Peterson Space Force Base (SFB), Colorado; or Youngstown ARS, Ohio. The Proposed Action includes only the near-term base facility modifications required to achieve minimal Initial Operations Capability (IOC) to accept the C-130J aircraft and mission set.

2. The *purpose* of the Proposed Action is to replace existing aircraft at one of the bases with the congressionally approved eight state-of-the-art C-130J aircraft. The proposed recapitalization of the C-130H to the C-130J model is *needed* to respond to evolving mission needs and operational demands, particularly in response to weather-related events. The C-130J model performance enhances situational awareness in low-level flying compared to the C-130H model.

3. The EA will analyze the potential range of environmental impacts that could result from the Proposed Action. The EA will analyze the following four locations as potential alternatives:

a. Alternative 1 - Youngstown ARS: near-term modifications would include establishing a composite material maintenance shop in Building 302, (requiring installation of a fume vent system with exhaust to building exterior) and enclosing an area to provide environmentally conditioned space to store engines and props in Building 203. An elevated mechanical room (585 square feet) in the hangar nose pocket of Building 295 would also need to be demolished to accommodate for the increased length of the new J aircraft. The airfield ramp will also require re-striping to adjust taxiway positions in order to maintain aircraft safety separations (see **Figure 1**).

b. Alternative 2 - Dobbins ARB: near-term modifications would include establishing a composite material maintenance shop in Building 831 (requiring installation of a fume vent system with exhaust to building exterior), installing a propellor balancing table in the engine shop bay of Building 838, and relocating ramp mooring points on the airfield (see **Figure 2**).

c. Alternative 3 - Minneapolis-St. Paul ARS: near-term modifications would include a 20-foot by 14-foot by 14-foot nose pocket extension on Hangar 870 to enable the aircraft tow truck to remain on level surface and out of the weather during aircraft towing procedures (see **Figure 3**). The airfield ramp will require re-striping to adjust taxiway positions in order to maintain aircraft safety separations and new



mooring points for each new parking spot. Additionally, a composite material maintenance shop would be established in Building 710, and the sheet metal shop would be relocated from Hangar 821 to the space adjacent to the composite material maintenance in Building 710. Finally, a new propeller balancing table would be installed in the engine shop of Building 822.

d. Alternative 4 - Peterson SFB: near-term modifications would include an approximately 30-foot by 36-foot addition to the northwest side of Building 216, to establish a composite material maintenance shop, installation of the new propeller balancing table in the engine shop bay of Building 502, re-striping the airfield ramp, and providing new mooring points for each parking spot (see **Figure 4**).

4. The EA will also analyze the No Action Alternative, which reflects the status quo, in part as a baseline for comparison of potential effects from the Proposed Action. Under the No-Action Alternative, the Air Force Strategic Basing Board direction to recapitalize one squadron of eight C-130H aircraft to the C-130J at one of the four AFRC installations would not be realized, and aircraft modernization would not occur. The four AFRC installations C-130H squadrons would continue to operate and fulfill current missions. Modifications to infrastructure (e.g., hangars, ramps) required to accommodate the C-130J model would not occur. No new beneficial or adverse impacts to environmental resources would occur, and long-term cost savings associated with recapitalization due to manpower decrements and decreased support aircraft flying time would not occur.

5. The EA will be prepared in compliance with the National Environmental Policy Act (NEPA) of 1969 (42 United States Code 4321, *et seq.*), the Council on Environmental Quality NEPA Implementing Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the Air Force Environmental Impact Analysis Process (32 CFR Part 989).

6. As part of this EA, we request your assistance in identifying any potential areas of environmental impact to be assessed in this analysis. For questions, comments, or input on the NEPA process and this Proposed Action, please contact Mr. Parker Johnson, via telephone at (678) 655-3549, or via email at [william.johnson.200@us.af.mil](mailto:william.johnson.200@us.af.mil).

Sincerely,

POWELL.WILLIAM.  
C.1030153312

Digitally signed by  
POWELL.WILLIAM.C.1030153312  
Date: 2023.03.30 14:58:35 -04'00'

WILLIAM C. POWELL, GS-12, DAF  
Chief, Environmental Flight

Attachments:

1. Figure 1: Alternative 1—Youngstown ARS
2. Figure 2: Alternative 2—Dobbins ARS
3. Figure 3: Alternative 3—Minneapolis-St. Paul ARS
4. Figure 4: Alternative 4—Peterson SFB



April 13, 2023

William C. Powell  
Chief, Environmental Flight  
Department of the Air Force  
Air Reserve Command; 94 MSG/CEV  
901 Industrial Drive  
Dobbins Air Reserve Base, Georgia 30069  
**Attn: Parker Johnson, 94 MSG/CEV**

**RE: Dobbins ARB/AFP 6: Rehabilitate Buildings 831 and 838, Relocate Ramp Moorings  
Cobb County, Georgia  
HP-230406-005**

Dear Chief Powell:

The Historic Preservation Division (HPD) has received initial information concerning the above referenced project requesting comments pursuant to the National Environmental Policy Act of 1969 (NEPA). Our comments are offered to assist the U.S. Department of the Air Force (Air Force) in complying with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA).

Thank you for notifying us of this federal undertaking. We look forward to receiving Section 106 compliance documentation, as appropriate. If the federal agency intends to utilize NEPA to comply with Section 106, in lieu of the procedures set forth in 36 CFR Part 800, the Air Force should notify HPD and the Advisory Council on Historic Preservation of its intent.

Please refer to project number **HP-230406-005** in future correspondence regarding this project. If we may be of further assistance, please contact me at Stacy.Rieke@dca.ga.gov or (404) 486-6434.

Sincerely,



Stacy Rieke  
Program Manager  
Environmental Review & Preservation Planning





DEPARTMENT OF THE AIR FORCE  
AIR FORCE RESERVE COMMAND



20 June 2023

Colonel Carl J. Magnusson  
Commander  
94th Airlift Wing  
1430 First Street  
Dobbins ARB GA 30069

Principal Chief Chuck Hoskin, Jr.  
Cherokee Nation  
P.O. Box 948  
Tahlequah OK 74465-0948

SUBJECT: Initiating Consultation on the Proposed Recapitalization of the C-130H Aircraft to the C-130J Model

Dear Principal Chief Hoskin, Jr.:

The United States (U.S.) Air Force Reserve Command (AFRC) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts resulting from the congressionally approved recapitalization of one squadron of eight C-130H aircraft to the C-130J model, and make modifications to infrastructure (e.g., hangars, ramps) required to accommodate the C-130J model, at one of four AFRC installations: Dobbins Air Reserve Base (ARB), Georgia; Minneapolis-St. Paul Air Reserve Station (ARS), Minnesota; Peterson Space Force Base (SFB), Colorado; or Youngstown ARS, Ohio. The Proposed Action includes only the near-term base facility modifications required to achieve minimal Initial Operations Capability (IOC) to accept the C-130J aircraft and mission set.

The EA will analyze the following four locations as potential alternatives:

a. Alternative 1 - Youngstown ARS: near-term modifications would include establishing a composite material maintenance shop in Building 302, (requiring installation of a fume vent system with exhaust to building exterior) and enclosing an area to provide environmentally conditioned space to store engines and props in Building 203. An elevated mechanical room (585 square feet) in the hangar nose pocket of Building 295 would also need to be demolished to accommodate for the increased length of the new J aircraft. The airfield ramp will also require re-striping to adjust taxiway positions in order to maintain aircraft safety separations (see **Figure 1**).

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c. Alternative 3 - Minneapolis-St. Paul ARS: near-term modifications would include a 20-foot by 14-foot by 14-foot nose pocket extension on Hangar 870 to enable the aircraft tow truck to remain on level surface and out of the weather during aircraft towing procedures (see **Figure 3**). The airfield ramp will require re-striping to adjust taxiway positions in order to maintain aircraft safety separations and new mooring points for each new parking spot. Additionally, a composite material maintenance shop would be established in Building 710, and the sheet metal shop would be relocated from Hangar 821 to the space adjacent to the composite material maintenance in Building 710. Finally, a new propeller balancing table would be installed in the engine shop of Building 822.

d. Alternative 4 - Peterson SFB: near-term modifications would include an approximately 30-foot by 36-foot addition to the northwest side of Building 216, to establish a composite material maintenance shop, installation of the new propeller balancing table in the engine shop bay of Building 502, re-striping the airfield ramp, and providing new mooring points for each parking spot (see **Figure 4**).

Pursuant to Section 306108 of the National Historic Preservation Act of 1966 and its implementing regulations at 36 Code of Federal Regulations Part 800, as amended, the AFRC would like to initiate government-to-government consultation concerning the undertaking to allow you the opportunity to identify any comments, concerns, and suggestions you might have. As we move forward through this process, we welcome your participation and input. The project limits on the enclosed figures collectively serve as the Areas of Potential Effect (APE) for the Proposed Action alternatives. Please let us know if you are aware of any properties of cultural and religious significance within or in the vicinity of the APEs, which you would believe this undertaking may adversely affect.

For questions, comments, or input on the NEPA process and this Proposed Action, please contact Mr. Parker Johnson, via telephone at (678) 655-3549, or via email at [william.johnson.200@us.af.mil](mailto:william.johnson.200@us.af.mil).

Sincerely,

A handwritten signature in black ink, appearing to read 'CJ Magnusson', with a long horizontal line extending to the right.

CARL J. MAGNUSSON, Colonel, USAF  
Commander

**Attachments:**

1. Figure 1: Alternative 1—Youngstown ARS
2. Figure 2: Alternative 2—Dobbins ARS
3. Figure 3: Alternative 3—Minneapolis-St. Paul ARS
4. Figure 4: Alternative 4—Peterson SFB





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**CHEROKEE NATION®**  
P.O. Box 948 • Tahlequah, OK 74465-0948  
918-453-5000 • [www.cherokee.org](http://www.cherokee.org)

**Chuck Hoskin Jr.**  
*Principal Chief*  
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**Bryan Warner**  
*Deputy Principal Chief*  
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July 25, 2023

Parker Johnson  
Department of the Air Force  
94th Airlift Wing  
1430 First Street  
Dobbins ARB GA 30069

Re: Proposed Recapitalization of the C-130H Aircraft to the C-130J Model

Mr. Parker Johnson:

The Cherokee Nation (Nation) is in receipt of your correspondence about the **Proposed Recapitalization of the C-130H Aircraft to the C-130J Model**, and appreciates the opportunity to provide comment upon this project. Of the four potential undertakings, please allow this letter to serve as the Nation's interest in acting as a consulting party to the proposed project for Dobbins Air Reserve Base (ARB) in Cobb County, Georgia.

The Nation maintains databases and records of cultural, historic, and pre-historic resources in this area. Our Historic Preservation Office (Office) reviewed the proposed Dobbins ARB project, cross referenced the project's legal description against our information, and found no instances where this project intersects or adjoins such resources. Thus, the Nation does not foresee this project imparting impacts to Cherokee cultural resources at this time for Dobbins ARB.

However, the Nation requests that the Air Force Reserve Command (AFRC) halt all project activities immediately and re-contact our Office for further consultation if items of cultural significance are discovered during the course of this project. Additionally, the Nation requests that the AFRC conduct appropriate inquiries with other pertinent Historic Preservation Offices regarding historic and prehistoric resources not included in the Nation's databases or records.

Further, the remaining proposed projects for the Minneapolis-St. Paul Air Reserve Station, Minnesota; Peterson Space Force Base, Colorado; and Youngstown ARS, Ohio are outside the Nation's Area of Interest. Thus, this Office respectfully defers to federally recognized Tribes that have an interest in this landbase for these aforementioned projects in Minnesota, Colorado, and Ohio.



Proposed Recapitalization of the C-130H Aircraft to the C-130J Model

July 25, 2023

Page 2 of 2

If you require additional information or have any questions, please contact me at your convenience.  
Thank you for your time and attention to this matter.

Wado,

A handwritten signature in blue ink that reads "Elizabeth Toombs". The signature is fluid and cursive, with the first name "Elizabeth" and last name "Toombs" clearly distinguishable.

Elizabeth Toombs, Tribal Historic Preservation Officer

Cherokee Nation Tribal Historic Preservation Office

[elizabeth-toombs@cherokee.org](mailto:elizabeth-toombs@cherokee.org)

918.453.5389



**C-130J Recapitalization  
Draft Environmental Assessment**

**List of Agencies Contacted –Minneapolis-St. Paul ARS**

**Federal Agencies**

Chad Konickson  
U.S. Army Corps of Engineers  
Regulatory Branch  
180 Fifth Street East, Suite #700  
St. Paul, MN 55101-1678  
[mvp-reg-inquiry@usace.army.mil](mailto:mvp-reg-inquiry@usace.army.mil)

Joshua Fitzpatrick  
FAA – Minneapolis Airports District Office 6020  
28th Ave S, Room 102  
Minneapolis, MN 55450  
[joshua.fitzpatrick@faa.gov](mailto:joshua.fitzpatrick@faa.gov)

Kenneth Westlake  
U.S. Environmental Protection Agency Region 5  
Office of Enforcement & Compliance Assurance  
77 West Jackson Boulevard  
Chicago, Illinois 60604  
[westlake.kenneth@epa.gov](mailto:westlake.kenneth@epa.gov)

Project Leader  
U.S. Fish and Wildlife Service  
Minnesota-Wisconsin Field Office E.S.  
4101 American Boulevard E  
Bloomington, MN 55425-1665  
[peter\\_fasbender@fws.gov](mailto:peter_fasbender@fws.gov)

**State/Local Agencies**

Becky Balk  
Minnesota Department of Agriculture  
625 North Robert Street  
St. Paul, MN 55155  
[becky.balk@state.mn.us](mailto:becky.balk@state.mn.us)

Ray Kirsch  
Minnesota Department of Commerce  
85 Seventh Place East, Suite 280  
St. Paul, MN 55101  
[raymond.kirsch@state.mn.us](mailto:raymond.kirsch@state.mn.us)

Minnesota Department of Health  
Environmental Health Division  
625 North Robert Street  
St. Paul, MN 55155  
[health.review@state.mn.us](mailto:health.review@state.mn.us)

Randall Doneen  
Minnesota Department of Natural Resources  
Environmental Review Unit  
500 Lafayette Road  
St. Paul, MN 55155-4025  
[randall.doneen@state.mn.us](mailto:randall.doneen@state.mn.us)

Lisa Joyal, Endangered Species Review  
Coordinator  
Minnesota Department of Natural Resources  
Division of Ecological and Water Resources  
500 Lafayette Road, Box 25  
St. Paul, Minnesota 55155  
[Review.NHIS@state.mn.us](mailto:Review.NHIS@state.mn.us)

Dan Card  
Pollution Control Agency  
Review Unit  
520 Lafayette Road N  
St. Paul, MN 55155  
[dan.card@state.mn.us](mailto:dan.card@state.mn.us)

Annie Felix-Gerth  
Board of Water and Soil Resources  
520 Lafayette Road N  
St. Paul, MN 55155  
[annie.felix-gerth@state.mn.us](mailto:annie.felix-gerth@state.mn.us)

Debra Moynihan  
Minnesota Department of Transportation  
Mn/DOT Office of Environmental Stewardship  
395 John Ireland Boulevard, MS 620  
St. Paul, MN 55155  
[debra.moynihan@state.mn.us](mailto:debra.moynihan@state.mn.us)

Amanda Gronhovd  
Office of the State Archaeologist  
Fort Snelling History Center  
St. Paul, MN 55111-4061  
[amanda.gronhovd@state.mn.us](mailto:amanda.gronhovd@state.mn.us)

Melissa Cerda  
Indian Affairs Council  
161 St. Anthony Avenue, Suite 919  
St. Paul, MN 55103  
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**C-130J Recapitalization  
Draft Environmental Assessment**

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DEPARTMENT OF THE AIR FORCE  
AIR FORCE RESERVE COMMAND



30 March 2023

MEMORANDUM FOR DISTRIBUTION

FROM: 934 CE/CEV  
760 Military Highway, Building 744  
Minneapolis St Paul ARS MN 55450-2100

SUBJECT: Preparation of an Environmental Assessment for Recapitalization of the C-130H Aircraft to the C-130J Model

1. The United States (U.S.) Air Force Reserve Command (AFRC) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts resulting from the congressionally approved recapitalization of one squadron of eight C-130H aircraft to the C-130J model, and make modifications to infrastructure (e.g., hangars, ramps) required to accommodate the C-130J model, at one of four AFRC installations: Dobbins Air Reserve Base (ARB), Georgia; Minneapolis-St. Paul Air Reserve Station (ARS), Minnesota; Peterson Space Force Base (SFB), Colorado; or Youngstown ARS, Ohio. The Proposed Action includes only the near-term base facility modifications required to achieve minimal Initial Operations Capability (IOC) to accept the C-130J aircraft and mission set.

2. The *purpose* of the Proposed Action is to replace existing aircraft at one of the bases with the congressionally approved eight state-of-the-art C-130J aircraft. The proposed recapitalization of the C-130H to the C-130J model is *needed* to respond to evolving mission needs and operational demands, particularly in response to weather-related events. The C-130J model performance enhances situational awareness in low-level flying compared to the C-130H model.

3. The EA will analyze the potential range of environmental impacts that could result from the Proposed Action. The EA will analyze the following four locations as potential alternatives:

a. Alternative 1 - Youngstown ARS: near-term modifications would include establishing a composite material maintenance shop in Building 302, (requiring installation of a fume vent system with exhaust to building exterior) and enclosing an area to provide environmentally conditioned space to store engines and props in Building 203. An elevated mechanical room (585 square feet) in the hangar nose pocket of Building 295 would also need to be demolished to accommodate for the increased length of the new J aircraft. The airfield ramp will also require re-striping to adjust taxiway positions in order to maintain aircraft safety separations (see **Figure 1**).

b. Alternative 2 - Dobbins ARB: near-term modifications would include establishing a composite material maintenance shop in Building 831 (requiring installation of a fume vent system with exhaust to building exterior), installing a propeller balancing table in the engine shop bay of Building 838, and relocating ramp mooring points on the airfield (see **Figure 2**).

c. Alternative 3 - Minneapolis-St. Paul ARS: near-term modifications would include a 20-foot by 14-foot by 14-foot nose pocket extension on Hangar 870 to enable the aircraft tow truck to remain on level surface and out of the weather during aircraft towing procedures (see **Figure 3**). The airfield ramp will require re-striping to adjust taxiway positions in order to maintain aircraft safety separations and new



mooring points for each new parking spot. Additionally, a composite material maintenance shop would be established in Building 710, and the sheet metal shop would be relocated from Hangar 821 to the space adjacent to the composite material maintenance in Building 710. Finally, a new propeller balancing table would be installed in the engine shop of Building 822.

4. The EA will also analyze the No Action Alternative, which reflects the status quo, as a baseline for comparison of potential effects from the Proposed Action. Under the No-Action Alternative, the Air Force Strategic Basing Board direction to recapitalize one squadron of eight C-130H aircraft to the C-130J at one of the four AFRC installations would not be realized, and aircraft modernization would not occur. The four AFRC installations C-130H squadrons would continue to operate and fulfill current missions. Modifications to infrastructure (e.g., hangars, ramps) required to accommodate the C-130J model would not occur. No new beneficial or adverse impacts to environmental resources would occur, and long-term cost savings associated with recapitalization due to manpower decrements and decreased support aircraft flying time would not occur.

5. The EA will be prepared in compliance with the National Environmental Policy Act (NEPA) of 1969 (42 United States Code 4321, *et seq.*), the Council on Environmental Quality NEPA Implementing Regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508), and the Air Force Environmental Impact Analysis Process (32 CFR Part 989).

6. As part of this EA, we request your assistance in identifying any potential areas of environmental impact to be assessed in this analysis. For questions, comments, or input on the NEPA process and this Proposed Action, please contact Mr. Kyle Turner, via telephone at (612) 713-1909, or via email at [kyle.turner.1@us.af.mil](mailto:kyle.turner.1@us.af.mil).

Sincerely,

TURNER.KYLE  
.D.1295898476

Digitally signed by  
TURNER.KYLE.D.1295898476  
Date: 2023.03.30 10:51:18 -05'00'

KYLE TURNER  
Acting Environmental Chief

Attachments:

1. Figure 1: Alternative 1—Youngstown ARS
2. Figure 2: Alternative 2—Dobbins ARS
3. Figure 3: Alternative 3—Minneapolis-St. Paul ARS
4. Figure 4: Alternative 4—Peterson SFB



**Sanford, Paul**

---

**From:** TURNER, KYLE D CIV USAF AFRC 934 CE/CEV <kyle.turner.1@us.af.mil>  
**Sent:** Wednesday, May 03, 2023 2:18 PM  
**To:** Warf, Jen; CARTER, CASEY M CIV USAF AFRC HQ AFRC/A4CA  
**Subject:** FW: USAF Reserve Command Aircraft Recapitalization NEPA Project  
**Attachments:** AFRC Aircraft Recapitalization.pdf

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**From:** Ogulei, David <Ogulei.David@epa.gov>  
**Sent:** Wednesday, May 3, 2023 12:54 PM  
**To:** TURNER, KYLE D CIV USAF AFRC 934 CE/CEV <kyle.turner.1@us.af.mil>  
**Cc:** Kajumba, Ntale <Kajumba.Ntale@epa.gov>  
**Subject:** [Non-DoD Source] USAF Reserve Command Aircraft Recapitalization NEPA Project

Mr. Turner:

EPA is in receipt of the attached correspondence dated March 30, 2023, requesting EPA review and comment for a forthcoming Environmental Assessment (EA) for the proposed Recapitalization of the C-130H Aircraft to the C-130J Model. Since your correspondence was sent via U.S. Mail, there were routing delays resulting in your letter not being received by our Region 5 NEPA office until April 26, 2023. EPA reviews and provides scoping comments for Draft EAs as time allows. To enable EPA to review the document, we request that the Air Force Reserve Command provide a 30 day extension to the comment deadline, until **May 26, 2023**. Please let us know if you are amenable to this proposal.

The National Archives and Records Administration and the Office of Management and Budget have mandated that Federal agencies transition business processes and recordkeeping to fully electronic environments. Please help EPA achieve this goal by using electronic submission of NEPA documents to our office. To ensure that NEPA documents are routed correctly and in a timely manner to our NEPA staff in the future, please send all NEPA-related documents and requests electronically to the EPA Region 5 NEPA email box at [R5NEPA@epa.gov](mailto:R5NEPA@epa.gov).

I am copying Ntale Kajumba from EPA Region 4 on this email as Alternative 2 is proposed at Dobbins ARB, which is in Georgia.

Looking forward to hearing from you.

-----  
David Ogulei, Acting NEPA Program Supervisor



Tribal and Multi-Media Programs Office | Office of the Regional Administrator  
EPA Region 5 | 77 West Jackson Blvd. | Chicago, Illinois 60604  
Phone: (312) 353-0987 | [Ogulei.David@epa.gov](mailto:Ogulei.David@epa.gov)



**FW: EPA Comments C-130J Recapitalization LOI AFRC**

TURNER, KYLE D CIV USAF AFRC 934 CE/CEV <kyle.turner.1@us.af.mil>

Tue 5/30/2023 7:35 AM

To: Warf, Jen <Jennifer.Warf@aecom.com>; Sanford, Paul <paul.sanford@aecom.com>; ORLUCK, AARON G CIV USAF AFRC A4/A4CA <aaron.orkuck.2@us.af.mil>

Cc: CARTER, CASEY M CIV USAF AFRC HQ AFRC/A4CA <casey.carter.2@us.af.mil>; BENTLEY, COREY L CIV USAF AFRC HQ AFRC/A4CA <corey.bentley.5@us.af.mil>; KASPEREK-SAID, MICHELLE M CIV USAF AFRC JA/JA <michelle.kasperek-said@us.af.mil>; MINER, STEVEN C CIV USAF AFRC HQ AFRC/A1CE <steven.miner.2@us.af.mil>; Lorenz, Paul <paul.lorenz@aecom.com>

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**From:** White, Douglas <White.Douglas@epa.gov>

**Sent:** Friday, May 26, 2023 10:05 AM

**To:** TURNER, KYLE D CIV USAF AFRC 934 CE/CEV <kyle.turner.1@us.af.mil>

**Cc:** Pelloso, Liz <Pelloso.Liz@epa.gov>; Kajumba, Ntale <Kajumba.Ntale@epa.gov>; Buskey, Traci P. <Buskey.Traci@epa.gov>

**Subject:** [URL Verdict: Unknown][Non-DoD Source] EPA Comments C-130J Recapitalization LOI AFRC

Re: EPA Comments on the Letter of Intent to Prepare an Environmental Assessment for C-130J Recapitalization at Dobbins Air Reserve Base, Cobb County, Georgia; Minneapolis-St. Paul Air Reserve Station, Hennepin County, Minnesota; Peterson Space Force Base, El Paso County, Colorado; or Youngstown Air Reserve Station, Trumbull County, Ohio

Dear Mr. Turner:

The U.S. Environmental Protection Agency has reviewed the U.S. Air Force Reserve Command's (AFRC) scoping document for the above-mentioned project. This letter provides EPA's comments, pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality's NEPA Implementing Regulations (40 CFR 1500-1508), and Section 309 of the Clean Air Act.

The AFRC proposes to prepare an Environmental Assessment (EA) for the proposed transition from C-130H cargo aircraft to the C-130J at one of four U.S. Air Force and U.S. Space Force installations, and associated facility modifications for aircraft support. AFRC indicates that the modern C-130J is needed to respond to evolving mission requirements and operational demands, particularly in response to weather-related events.

Under the Proposed Action, AFRC would recapitalize existing C-130 operations at one of four Alternatives:

- Alternative 1) Youngstown Air Reserve Station, Ohio
- Alternative 2) Dobbins Air Reserve Base, Georgia
- Alternative 3) Minneapolis-St. Paul ARS, Minnesota
- Alternative 4) Peterson Space Force Base, Colorado

The proposed Recapitalization would replace 8 existing C-130H aircraft with 8 C-130J aircraft. To support maintenance and parking of the new aircraft, AFRC would modify existing hangars and paint booths to accommodate physical changes between the C-130 models. Facility modifications include structural modifications that meet the C-130J's increased dimensions and ventilation systems to treat emissions from composite component painting. Additional striping and mooring points would be needed for taxiway and ramp surfaces of the airfield that C-130J aircraft will operate from. AFRC will also evaluate the No-Action Alternative in which C-130H aircraft would continue to be operated in support of AFRC missions.

Upon review of the scoping documents, the EPA notes that the Proposed Action is reasonably compatible with current land use and operations at respective installations. We offer the following comments and recommendations as AFRC prepares the Draft EA.

**Noise Impacts**

Noise levels from flight operations exceeding ambient background noise typically occur beneath the main approach and departure corridors and in areas immediately adjacent to parking ramps and aircraft staging areas. It is important to consider the impacts from noise on quality of life, human experience, and health and learning, especially near homes, schools, and daycare centers. Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks, directs that each federal agency shall make it a high priority to identify and assess environmental health and safety risks that may disproportionately affect children, and shall ensure that its policies, programs, activities, and standards address these risks.



**Recommendations:** AFRC should evaluate noise generated by C-130J aircraft and provide a comparison of this noise to existing C-130 aircraft operations. If noise levels from the Proposed Action have the potential to be elevated compared to existing operations, noise contours for the Proposed Action should be modeled and included in the EA. Local AFRC public affairs staff should monitor noise impacts and coordinate with affected communities to optimize airspace usage to minimize impacts while meeting mission requirements.

Additionally, the following issues should be included among those analyzed in the EA for direct, indirect, and cumulative noise effects.

- The difference in intensity and severity of effects with respect to height above ground and height above sea level for all effects.
- Cumulative and increased effects, including frequency and severity.
- Disturbance and interference to sleep, indoor speech, and classroom learning.
- Potential hearing loss.
- Effects on birds.
- Effects on other terrestrial or aquatic wildlife species.
- Effects on children's health and safety, including effects of noise and disturbance on school and other learning environments.
- Effects on other vulnerable populations, including the elderly and disabled.
- Effects on recreation activities.
- Cumulative and indirect effects on sensitive human and non-human animal receptors.
- Avoidance, minimization, and other noise abatement measures, such as noise complaint process.
- Monitoring of effects and potential need for adaptive management.

### **Air Quality and Climate Change**

The Proposed Action may be located in Cobb County, Georgia; Hennepin County, Minnesota; El Paso County, Colorado; or Trumbull County, Ohio.

**Recommendations:** Discuss the current status of each location with regard to status (attainment, non-attainment, maintenance) for National Ambient Air Quality Standards and how the Proposed Action could or would affect air quality. EPA recommends using tools such as the Air Conformity Applicability Model to determine if, and to what extent, the Proposed Action will produce emissions that contribute toward exceeding air emissions permits at potential basing locations, or otherwise impact air quality or human health. In addition to flight operations, facility construction and operation support activities such as consumption of maintenance materials containing volatile organic compounds should be accounted for by the appropriate air emissions model.

### **Environmental Justice**

- To promote environmental justice, EO 12898: *Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations* requires Federal agencies to identify and address disproportionately high and adverse impacts of all programs, policies, and activities on low income and/or minority populations. EPA encourages the use of EJScreen<sup>[1]</sup> for Environmental Justice (EJ) scoping efforts. EPA's nationally consistent EJ screening and mapping tool is a useful first step in highlighting locations that may be candidates for further analysis. The tool can help identify potential community vulnerabilities by calculating EJ Indexes and displaying other environmental and socioeconomic information in color-coded maps and standard data reports (e.g., pollution sources, health disparities, critical service gaps, climate change data). EJScreen can also help focus environmental justice outreach efforts by identifying potential language barriers, meeting locations, tribal lands and indigenous areas, and lack of broadband access. For purposes of NEPA review, EPA considers a project to be in an area of potential EJ concern when the area shows one or more of the twelve EJ Indexes at or above the 80th percentile in the nation and/or state. However, scores under the 80th percentile should not be interpreted to mean there are definitively no EJ concerns present.

While EJScreen provides access to high-resolution environmental and demographic data, it does not provide information on every potential community vulnerability that may be relevant. The tool's standard data report should not be considered a substitute for conducting a full EJ analysis, and scoping efforts using the tool should be supplemented with additional data and local knowledge. Also, in recognition of the inherent uncertainties with screening level data and to help address instances when the presence of EJ populations may be diluted (e.g., in large project areas or in rural locations), EPA recommends assessing each block group within the project area individually and adding an appropriate buffer around the project area. Please see the EJScreen Technical Documentation<sup>[2]</sup> for a discussion of these and other issues.

### **Recommendations:**

- Discuss equity considerations in selecting the locations of the Proposed Action.
- Identify the presence of low-income and/or minority communities within the project areas that could experience environmental impacts from the Proposed Action. Disclose demographic information. For initial screening, use EPA's EJScreen mapping tool. Use census-tract-level information to initially help locate communities with EJ concerns.
- Describe past activities and future plans to engage minority populations, low-income populations, and the surrounding community in the environmental review and planning phase, and, if the project commences, during construction.
- Evaluate the impacts (adverse and beneficial) of project proposals on low-income and/or minority communities and sensitive receptors (e.g., children, people with asthma, etc.).



- Compare project impacts on low-income and minority populations with an appropriate reference community to determine whether there may be disproportionate impacts. Consider risk of exposure to hazardous/toxic materials associated with the project construction, and noise impacts.
- In conducting the EJ analysis, utilize resources such as the *Promising Practices Report*<sup>[3]</sup> and the *Community Guide to EJ and NEPA Methods*<sup>[4]</sup> to appropriately engage in meaningful, targeted, community outreach, analyze impacts, and advance environmental justice through NEPA implementation.
- Identify measures to: (1) ensure meaningful community engagement; (2) minimize adverse community impacts; and (3) avoid disproportionate impacts to communities with EJ concerns. The NEPA document should describe how individuals and communities were provided a meaningful voice in the project's development. Document how you have ensured full and fair public participation.
- Consider cumulative environmental impacts to minority populations, low-income populations, and indigenous peoples in the project area within the environmental justice analysis and disclose AFRC's conclusions.
- Include AFRC's analysis and conclusion regarding whether the Proposed Action or any action alternatives may have disproportionately high and adverse impacts on low income or minority communities, as specified in CEQ's Environmental Justice Guidance.<sup>[5]</sup>
- Describe measures that AFRC will take to avoid, minimize, or mitigate impacts any disproportionate impacts to communities with EJ concerns and impacts to other sensitive populations.
- If there will be impacts to communities with EJ concerns, the cumulative impacts from climate change on public health and communities with EJ concerns should be discussed. Studies have shown that communities with EJ concerns may have less adaptive capacity and are thus more prone to disproportional impacts from climate change. See EPA's report *Analyses of the Effects of Global Change on Human Health and Welfare and Human Systems*<sup>[6]</sup>.

### **Greenhouse Gas Reduction and Climate Change**

Executive Order 14008: *Tackling the Climate Crisis at Home and Abroad* states, "The United States and the world face a profound climate crisis. We have a narrow moment to pursue action...to avoid the most catastrophic impacts of that crisis and to seize the opportunity that tackling climate change presents." The U.S. Global Change Research Program's National Climate Assessment provides data and scenarios that may be helpful in assessing trends in temperature, precipitation, and frequency and severity of storm events.<sup>[7]</sup>

Federal courts consistently have held that NEPA requires agencies to disclose and consider climate impacts in their reviews, including impacts from greenhouse gas (GHG) emissions. On January 9, 2023, CEQ's *National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change*,<sup>[8]</sup> was published in the Federal Register. CEQ issued this interim guidance to assist Federal agencies in assessing and disclosing climate impacts during environmental reviews. The guidance responds to Executive Order 13990: *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*, which directed CEQ to review, revise, and update CEQ's 2016 emissions guidance. The 2023 interim guidance is effective immediately and should be used to inform the reviews of new proposed actions.

In addition, estimates of the social cost of greenhouse gases (SC-GHG<sup>[9]</sup>) are informative for assessing the impacts of GHG emissions. SC-GHG estimates monetize the societal value of changes in GHG emissions from actions that have small, or marginal, impacts on cumulative global emissions. Estimates of the social cost of carbon (SC-CO<sub>2</sub>) and other greenhouse gases (e.g., social cost of methane (SC-CH<sub>4</sub>)) have been used for over a decade in Federal government analyses. Quantification of anticipated GHG releases and associated SC-GHG comparisons among all alternatives (including the No Action Alternative) within the Draft EA could inform project decision-making and provide support for implementing all practicable measures to minimize GHG emissions.

**Recommendations:** We recommend that AFRC implement the January 2023 CEQ GHG Guidance and the recommendations below for the proposed project.

### **Emissions & SC-GHG Disclosure and Analysis**

- Quantify reasonably foreseeable direct (e.g., construction) and indirect (off-site material hauling and disposal) GHG emissions.
- Use SC-GHG estimates to consider the climate damages from net changes in direct and indirect emissions of CO<sub>2</sub> and other GHGs from the proposed project. To do so, EPA recommends a breakdown of estimated net GHG emission changes by individual gas, rather than relying on CO<sub>2</sub>-equivalent (CO<sub>2</sub>e) estimates, and then monetize the climate impacts associated with each GHG using the corresponding social cost estimate (i.e., monetize CH<sub>4</sub> emissions changes expected to occur with the social cost of methane (SC-CH<sub>4</sub>) estimate for emissions).<sup>[10]</sup> When applying SC-GHG estimates, just as with tools to quantify emissions, disclose the assumptions (e.g., discount rates) and uncertainties associated with such analysis and the need for updates over time to reflect evolving science and economics of climate impacts.
- Compare GHG emissions and SC-GHG across alternatives to inform project decision-making. Such information may help to justify the upfront costs associate with GHG reduction measures.

### **Resilience and Adaptation**

- Describe changing climate conditions (i.e., temperatures and frequency and severity of storm events) and assess how such changes could impact the proposed project and the environmental impacts of the proposed project and alternatives. Consider



increases in frequency and severity of storm events, flooding, drought, and periods of high heat. This may assist in identifying resilience-related changes to project proposals that should be considered.

- Describe climate resilience and adaption considerations for (1) construction plans; (2) emergency planning; and (3) monitoring and adaptive maintenance at each individual project location.

#### Reduction and Mitigation

- Identify practices AFRC could take to reduce and mitigate GHG emissions and include commitments in the Draft EA. Consider practices in the enclosed Construction Emission Control Checklist.

#### Hazardous Materials and Containment

AFRC will need to ensure the Proposed Action protects drinking water sources, regulated Waters of the United States, and other sensitive resources.

**Recommendations:** Demonstrate how implementation of the Proposed Action will protect water resources. Ensure use of secondary containment where storage and handling of Petroleum, Oils, and Lubricants (POL) will take place, such as hangars, aircraft aprons, maintenance bays, and storage sites of single wall POL tanks. Where secondary containment is not directly practicable, spill ponds and oil water separators should be constructed downstream of POL related activities. Construction and operation in support of the Proposed Action should ensure that Resource Conservation and Recovery Act-regulated solid wastes generated are disposed of in accordance with federal regulations.

#### Energy Efficiency and Recycling

EPA recommends the use of sustainable building practices, to the extent practicable and feasible for the Proposed Action.

**Recommendations:** For any proposed construction associated with the Proposed Action, utilize construction methods and building materials that maximize energy and water conservation and utilization of renewable energy (including solar or wind power) for supplemental electricity and lighting for buildings and infrastructure that may be constructed. Implementation of renewable energy sources and operational efficiency measures should be included in climate change analysis. Please consult relevant federal information sources for federal agencies (<https://www.energy.gov/eere/femp/sustainable-federal-buildings>) for energy conservation requirements. Efforts should be made to reuse and divert recyclable materials such as concrete, steel, and asphalt away from landfills.

#### Alternatives

EPA acknowledges that Recapitalization of installations that currently host C-130 aircraft likely provides efficiencies in staffing and infrastructure. The scoping documentation notes that AFRC has not identified a Preferred Alternative for site selection.

**Recommendations:** The Draft EA should include a robust alternatives analysis that determines whether impacts of an alternative are significant or not and discuss the reasons for the elimination of alternatives. The alternatives analysis should also describe the approach used to identify environmentally sensitive areas and the process used to designate areas in terms of sensitivity. EPA also recommends that AFRC identify potential operational and personnel changes that may result in impacts to surrounding communities, such as increased noise levels or traffic.

Thank you for the opportunity to provide comments on the AFRC's proposed C-130J Recapitalization. For effective coordination, please provide this office with an electronic version of the draft EA for further review and keep the local community informed and involved throughout the project process. Please also provide an electronic copy to the EPA Region 5 office at [R5NEPA@epa.gov](mailto:R5NEPA@epa.gov). If you have any questions, feel free to contact me at the information provided in my email, or Liz Pelloso of EPA's Region 5 office at [pelloso.liz@epa.gov](mailto:pelloso.liz@epa.gov) or 312-886-7425. For Region 4 of the EPA you may contact Doug White at [white.douglas@epa.gov](mailto:white.douglas@epa.gov) or 404-562-8586.

Douglas White  
U.S. Environmental Protection Agency / Region 4  
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61 Forsyth Street, SW  
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[1] <https://www.epa.gov/ejscreen>

[2] <https://www.epa.gov/ejscreen/technical-information-about-ejscreen>

[3] [https://www.epa.gov/sites/default/files/2016-08/documents/nepa\\_promising\\_practices\\_document\\_2016.pdf](https://www.epa.gov/sites/default/files/2016-08/documents/nepa_promising_practices_document_2016.pdf)

[4] <https://www.energy.gov/sites/prod/files/2019/05/f63/NEPA%20Community%20Guide%202019.pdf>

[5] CEQ's Environmental Justice Guidance Under the National Environmental Policy Act. See Section III, Part C-4. [https://www.epa.gov/sites/default/files/2015-02/documents/ej\\_guidance\\_nepa\\_ceq1297.pdf?VersionId=78iNGtdwSTz5E2x.H0aHq.E96\\_Tphbgd](https://www.epa.gov/sites/default/files/2015-02/documents/ej_guidance_nepa_ceq1297.pdf?VersionId=78iNGtdwSTz5E2x.H0aHq.E96_Tphbgd)



[6] <http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=197244>

[7] Information on changing climate conditions is available through the National Climate Assessment at: <http://nca2018.globalchange.gov>

[8] <https://www.federalregister.gov/d/2023-00158>

[9] EPA uses the general term, “social cost of greenhouse gases” (SC-GHG), where possible because analysis of GHGs other than CO<sub>2</sub> are also relevant when assessing the climate damages resulting from GHG emissions. The social cost of carbon (SC-CO<sub>2</sub>), social cost of methane (SC-CH<sub>4</sub>), and social cost of nitrous oxide (SC-N<sub>2</sub>O) can collectively be referenced as the SC-GHG.

[10] Transforming gases into CO<sub>2</sub>e using Global Warming Potential (GWP) metrics, and then multiplying the CO<sub>2</sub>e tons by the SC-CO<sub>2</sub>, is not as accurate as a direct calculation of the social costs of non-CO<sub>2</sub> GHGs. This is because GHGs differ not just in their potential to absorb infrared radiation over a given time frame, but also in the temporal pathway of their impact on radiative forcing and in their impacts on physical endpoints other than temperature change, both of which are relevant for estimating their social cost but not reflected in the GWP. See the Interagency Working Group on Social Cost of Greenhouse Gases’ February 2021 *Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990* for more discussion and the range of annual SC-CO<sub>2</sub>, SC-CH<sub>4</sub>, and SC-N<sub>2</sub>O estimates currently used in Federal benefit-costs analyses.





DEPARTMENT OF THE AIR FORCE  
AIR FORCE RESERVE COMMAND



30 March 2023

Kyle Turner  
Acting Environmental Chief  
934 CE/CEV  
760 Military Highway, Building 744  
Minneapolis St Paul ARS MN 55450-2100

Keith B. Anderson, Chairman  
Shakopee Mdewakanton Sioux Community (Minnesota)  
2330 Sioux Trail, NW  
Prior Lake, MN 55372-9077

SUBJECT: Initiating Consultation on the Proposed Recapitalization of the C-130H Aircraft to the C-130J Model

Dear Chairman Anderson:

The United States (U.S.) Air Force Reserve Command (AFRC) is preparing an Environmental Assessment (EA) to evaluate the potential environmental impacts resulting from the congressionally approved recapitalization of one squadron of eight C-130H aircraft to the C-130J model, and make modifications to infrastructure (e.g., hangars, ramps) required to accommodate the C-130J model, at one of four AFRC installations: Dobbins Air Reserve Base (ARB), Georgia; Minneapolis-St. Paul Air Reserve Station (ARS), Minnesota; Peterson Space Force Base (SFB), Colorado; or Youngstown ARS, Ohio. The Proposed Action includes only the near-term base facility modifications required to achieve minimal Initial Operations Capability (IOC) to accept the C-130J aircraft and mission set.

The EA will analyze the following four locations as potential alternatives:

- a. Alternative 1 - Youngstown ARS: near-term modifications would include establishing a composite material maintenance shop in Building 302, (requiring installation of a fume vent system with exhaust to building exterior) and enclosing an area to provide environmentally conditioned space to store engines and props in Building 203. An elevated mechanical room (585 square feet) in the hangar nose pocket of Building 295 would also need to be demolished to accommodate for the increased length of the new J aircraft. The airfield ramp will also require re-striping to adjust taxiway positions in order to maintain aircraft safety separations (see **Figure 1**).
- b. Alternative 2 - Dobbins ARB: near-term modifications would include establishing a composite material maintenance shop in Building 831 (requiring installation of a fume vent system with exhaust to building exterior), installing a propellor balancing table in the engine shop bay of Building 838, and relocating ramp mooring points on the airfield (see **Figure 2**).



c. Alternative 3 - Minneapolis-St. Paul ARS: near-term modifications would include a 20-foot by 14-foot by 14-foot nose pocket extension on Hangar 870 to enable the aircraft tow truck to remain on level surface and out of the weather during aircraft towing procedures (see **Figure 3**). The airfield ramp will require re-striping to adjust taxiway positions in order to maintain aircraft safety separations and new mooring points for each new parking spot. Additionally, a composite material maintenance shop would be established in Building 710, and the sheet metal shop would be relocated from Hangar 821 to the space adjacent to the composite material maintenance in Building 710. Finally, a new propeller balancing table would be installed in the engine shop of Building 822.


d. Alternative 4 - Peterson SFB: near-term modifications would include an approximately 30-foot by 36-foot addition to the northwest side of Building 216, to establish a composite material maintenance shop, installation of the new propeller balancing table in the engine shop bay of Building 502, re-striping the airfield ramp, and providing new mooring points for each parking spot (see **Figure 4**).

Pursuant to Section 306108 of the National Historic Preservation Act of 1966 and its implementing regulations at 36 Code of Federal Regulations Part 800, as amended, the AFRC would like to initiate government-to-government consultation concerning the undertaking to allow you the opportunity to identify any comments, concerns, and suggestions you might have. As we move forward through this process, we welcome your participation and input. The project limits on the enclosed figures collectively serve as the Areas of Potential Effect (APE) for the Proposed Action alternatives. Please let us know if you are aware of any properties of cultural and religious significance within or in the vicinity of the APEs, which you would believe this undertaking may adversely affect.

For questions, comments, or input on the NEPA process and this Proposed Action, please contact Mr. Kyle Turner, via telephone at (612) 713-1909, or via email at [kyle.turner.1@us.af.mil](mailto:kyle.turner.1@us.af.mil).

Sincerely,

TURNER.KYLE  
.D.1295898476



Digitally signed by  
TURNER.KYLE.D.12958984  
76  
Date: 2023.03.30 10:45:08  
-05'00'

KYLE TURNER  
Acting Environmental Chief

Attachments:

1. Figure 1: Alternative 1—Youngstown ARS
2. Figure 2: Alternative 2—Dobbins ARS
3. Figure 3: Alternative 3—Minneapolis-St. Paul ARS
4. Figure 4: Alternative 4—Peterson SFB



**Sanford, Paul**

---

**From:** TURNER, KYLE D CIV USAF AFRC 934 CE/CEV <kyle.turner.1@us.af.mil>  
**Sent:** Monday, April 17, 2023 8:32 AM  
**To:** Warf, Jen  
**Subject:** FW: Dept. of the Air Force- Proposed Recapitalization of the C-130H Aircraft to the C-130J Model

**This Message Is From an External Sender**

This message came from outside your organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Report Suspicious

Jen,

See below.

Kyle

---

**From:** Leonard Wabasha (TO) <leonard.wabasha@shakopeedakota.org>  
**Sent:** Thursday, April 13, 2023 11:15 AM  
**To:** TURNER, KYLE D CIV USAF AFRC 934 CE/CEV <kyle.turner.1@us.af.mil>  
**Subject:** [Non-DoD Source] Dept. of the Air Force- Proposed Recapitalization of the C-130H Aircraft to the C-130J Model

Dear Kyle Turner

Thank you for your correspondence dated March 30, 2023, regarding the Proposed recapitalization of the C-130H Aircraft to the C-130J.

The Shakopee Mdewakanton Sioux Community has no concerns about "c. Alternative 3" due to its preexisting highly disturbed condition and the appearance of having no new ground disturbance.

The remaining alternatives, located outside of our area of concern, will be left for consultation to the closer local area Federally Recognized Tribal Nations or those with historical ties to the locations mentioned.

Thank you for the opportunity to consult and should you have questions feel free to contact me. Thank you again and Have a Great Day!

Respectfully,



**LEONARD WABASHA**

Director of Cultural Resources • Cultural Resources  
Shakopee Mdewakanton Sioux Community  
d: 952.496.6120  
shakopeedakota.org  
[Leonard.Wabasha@shakopeedakota.org](mailto:Leonard.Wabasha@shakopeedakota.org)

The Shakopee Mdewakanton Sioux Community is a federally recognized, sovereign Indian tribe located southwest of Minneapolis/St. Paul. With a focus on being a good neighbor, good steward of the earth, and good employer, the SMSC is committed to charitable donations, community partnerships, a healthy environment, and a strong economy.



**C-130J Recapitalization  
Draft Environmental Assessment**

**List of Agencies Contacted – Peterson SFB**

**Federal Agencies**

U.S. Army Corp of Engineers – Pueblo Office  
200 South Santa Fe Avenue, Suite 301  
Pueblo, Colorado 81003  
[CESPA-RD-CO@usace.army.mil](mailto:CESPA-RD-CO@usace.army.mil)

U.S. Environmental Protection Agency, Region 8  
999 18th Street, Suite 200  
Denver, CO 80202  
[thomas.debrah@epa.gov](mailto:thomas.debrah@epa.gov)

Nicole Alt, Field Supervisor  
U.S. Fish and Wildlife Service  
Colorado Ecological Services Field Office  
134 Union Boulevard, Suite 650  
Lakewood, CO 80228  
[coloradoes@fws.gov](mailto:coloradoes@fws.gov), [MountainPrairie@fws.gov](mailto:MountainPrairie@fws.gov)

Clint Evans, State Conservationist  
USDA Natural Resources Conservation Service  
Colorado State Office  
Denver Federal Center  
Building 56, Room 2604  
PO Box 25426  
Denver, CO 80225-0426  
[Clint.Evans@usda.gov](mailto:Clint.Evans@usda.gov)

**State/Local Agencies**

Dawn DePrince, SHPO  
History Colorado  
1200 Broadway  
Denver CO 80203

Tim Kroening, Wildlife Manager  
Colorado Parks and Wildlife  
Department of Natural Resources  
Southeast Region - Area 14  
4255 Sinton Road  
Colorado Springs CO 80907

Trishia Oeth, JD, Director of Environmental  
Policy  
Colorado Department of Public Health and  
Environment  
4300 Cherry Creek Drive 5  
Denver CO 80246

Bev Zubke, Executive Assistant to the  
Commissioner  
Colorado Department of Agriculture  
305 Interlocken Parkway  
Broomfield, CO 80021  
[beverly.zubke@state.co.us](mailto:beverly.zubke@state.co.us)

Colorado Department of Public Health and  
Environment  
Federal Facilities, HMWM 2800  
4300 Cherry Creek Drive, South  
Denver, CO 80246  
[cdphe.information@state.co.us](mailto:cdphe.information@state.co.us)

Colorado Department of Public Health and  
Environment  
Air Pollution Control Division, APCD-TS-B2  
4300 Cherry Creek Drive, South  
Denver, CO 80246  
[cdphe.information@state.co.us](mailto:cdphe.information@state.co.us)

Colorado Natural Heritage Program  
Colorado State University  
1475 Campus Delivery  
Fort Collins, CO 80523  
[CNHP@colostate.edu](mailto:CNHP@colostate.edu)

Colorado Department of Transportation  
2829 W. Howard Place, 4th Floor  
Denver, CO 80204

Craig Dossey  
El Paso County Development Service  
Department  
2880 International Circle, Suite 110  
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**Native American Tribes**

Durell Cooper, Chairman and THPO  
Apache Tribe of Oklahoma  
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**C-130J Recapitalization  
Draft Environmental Assessment**

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**C-130J Recapitalization  
Draft Environmental Assessment**

Lloyd Googles, Chairman  
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Cheyenne Indian Reservation, Montana  
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Ignacio, CO 81137

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Arden Kucate, Governor  
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Zuni, NM 87327



**C-130J Recapitalization  
Draft Environmental Assessment**

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**C-130J Recapitalization  
Draft Environmental Assessment**

**APPENDIX B1 RECORD OF AIR ANALYSIS**



# AIR CONFORMITY APPLICABILITY MODEL REPORT

## RECORD OF AIR ANALYSIS (ROAA)

**1. General Information:** The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

**a. Action Location:**

**Base:** YOUNGSTOWN JARS  
**State:** Ohio  
**County(s):** Trumbull  
**Regulatory Area(s):** NOT IN A REGULATORY AREA

**b. Action Title:** C-130J Recapitalization Environmental Assessment

**c. Project Number/s (if applicable):** Near-term Improvements Alternative 1 - Youngstown Air Reserve Station, Ohio

**d. Projected Action Start Date:** 4 / 2024

**e. Action Description:**

Near-term base facility modifications required to achieve minimal Initial Operations Capability to accept the C-130J aircraft and mission set.

The Proposed Action would implement the recapitalization of one squadron of eight C-130H aircraft to the C-130J model and make needed near-term modifications, improvements, and/or renovations to existing facilities and infrastructure (e.g., hangars, ramps) required to accommodate the C-130J model. The disposition of the existing C-130H fleet at the selected recapitalization AFRC base would be determined at a later date and is not part of the Proposed Action.

Near-term facility modifications at Youngstown Air Reserve Station (Alternative 1) would include:

- Establish composite material maintenance shop, co-located with a corrosion maintenance shop in B-302, requiring installation of a fume vent system with exhaust to building exterior, as well as enclosing an interior area of Building 302 to provide environmentally conditioned space to store engines and propellers.
- Demolish an elevated mezzanine containing a mechanical room (585 square feet) in the hangar nose pocket of Building 295 to accommodate for the increased length of the new C-130J aircraft for fuel cell maintenance.
- Restripe the airfield ramp to adjust taxiway positions to accommodate the longer C-130J model in order to maintain aircraft safety separations.

Manpower decrements associated with recapitalization at Youngstown Air Reserve Station would be 35 total, including:

- 1 full-time officer position
- 1 full-time enlisted position
- 3 full-time civilian positions
- 16 part-time officer positions
- 14 part-time enlisted positions

**f. Point of Contact:**

**Name:** Paul Sanford  
**Title:** Environmental Planner  
**Organization:** AECOM  
**Email:** paul.sanford@aecom.com  
**Phone Number:** 813-675-6843



# AIR CONFORMITY APPLICABILITY MODEL REPORT

## RECORD OF AIR ANALYSIS (ROAA)

**2. Air Impact Analysis:** Based on the attainment status at the action location, the requirements of the General Conformity Rule are:

\_\_\_\_\_ applicable  
 \_\_\_X\_\_\_ not applicable

Total net direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the start of the action through achieving “steady state” (i.e., net gain/loss upon action fully implemented) emissions. The ACAM analysis used the latest and most accurate emission estimation techniques available; all algorithms, emission factors, and methodologies used are described in detail in the USAF Air Emissions Guide for Air Force Stationary Sources, the USAF Air Emissions Guide for Air Force Mobile Sources, and the USAF Air Emissions Guide for Air Force Transitory Sources.

“Insignificance Indicators” were used in the analysis to provide an indication of the significance of potential impacts to air quality based on current ambient air quality relative to the National Ambient Air Quality Standards (NAAQSs). These insignificance indicators are the 250 ton/yr Prevention of Significant Deterioration (PSD) major source threshold for actions occurring in areas that are “Clearly Attainment” (i.e., not within 5% of any NAAQS) and the GCR de minimis values (25 ton/yr for lead and 100 ton/yr for all other criteria pollutants) for actions occurring in areas that are “Near Nonattainment” (i.e., within 5% of any NAAQS). These indicators do not define a significant impact; however, they do provide a threshold to identify actions that are insignificant. Any action with net emissions below the insignificance indicators for all criteria pollutant is considered so insignificant that the action will not cause or contribute to an exceedance on one or more NAAQSs. For further detail on insignificance indicators see chapter 4 of the Air Force Air Quality Environmental Impact Analysis Process (EIAP) Guide, Volume II - Advanced Assessments.

The action’s net emissions for every year through achieving steady state were compared against the Insignificance Indicator and are summarized below.

### Air Impact Analysis Summary:

**2024**

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	3.503	100	
NOx	0.122	100	
CO	0.200	250	
SOx	0.000	250	
PM 10	0.007	250	
PM 2.5	0.004	250	
Pb	0.000	25	No
NH3	0.000	250	
CO2e	44.9		

**2025**

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	0.000	100	
NOx	0.000	100	
CO	0.000	250	
SOx	0.000	250	
PM 10	0.000	250	
PM 2.5	0.000	250	



# AIR CONFORMITY APPLICABILITY MODEL REPORT

## RECORD OF AIR ANALYSIS (ROAA)

<b>Pb</b>	0.000	25	No
<b>NH3</b>	0.000	250	
<b>CO2e</b>	0.0		

### 2026

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	-0.015	100	
NOx	-0.010	100	
CO	-0.219	250	
SOx	0.000	250	
PM 10	0.000	250	
PM 2.5	0.000	250	
Pb	0.000	25	No
NH3	-0.002	250	
CO2e	-21.5		

### 2027 - (Steady State)

Pollutant	Action Emissions (ton/yr)	INSIGNIFICANCE INDICATOR	
		Indicator (ton/yr)	Exceedance (Yes or No)
NOT IN A REGULATORY AREA			
VOC	-0.015	100	
NOx	-0.010	100	
CO	-0.219	250	
SOx	0.000	250	
PM 10	0.000	250	
PM 2.5	0.000	250	
Pb	0.000	25	No
NH3	-0.002	250	
CO2e	-21.5		

None of estimated annual net emissions associated with this action are above the insignificance indicators, indicating no significant impact to air quality. Therefore, the action will not cause or contribute to an exceedance on one or more NAAQSs. No further air assessment is needed.

\_\_\_\_\_  
Paul Sanford, Environmental Planner

\_\_\_\_\_  
DATE



# AIR CONFORMITY APPLICABILITY MODEL REPORT

## RECORD OF CONFORMITY ANALYSIS (ROCA)

**1. General Information:** The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

**a. Action Location:**

**Base:** DOBBINS JARB  
**State:** Georgia  
**County(s):** Cobb  
**Regulatory Area(s):** Atlanta, GA

**b. Action Title:** C-130J Recapitalization Environmental Assessment

**c. Project Number/s (if applicable):** Near-term Improvements Alternative 2 – Dobbins Air Reserve Base, Georgia

**d. Projected Action Start Date:** 4 / 2024

**e. Action Description:**

Near-term base facility modifications required to achieve minimal Initial Operations Capability to accept the C-130J aircraft and mission set.

The Proposed Action would implement the recapitalization of one squadron of eight C-130H aircraft to the C-130J model and make needed near-term modifications, improvements, and/or renovations to existing facilities and infrastructure (e.g., hangars, ramps) required to accommodate the C-130J model. The disposition of the existing C-130H fleet at the selected recapitalization AFRC base would be determined at a later date and is not part of the Proposed Action.

Near-term facility modifications at Dobbins Air Reserve Base (Alternative 2) would include:

- Establish a composite material maintenance shop in Building 831, which requires partitioning of existing interior space, relocation of communication equipment, and installation of a fume vent system.
- Install a propeller balancing table in the engine shop bay of Building 838.
- Relocate 8 ramp mooring points.

Operational changes at Dobbins Air Reserve Base would include:

- Replace eight existing C-130H aircraft with eight C-130J-30 Aircraft

Manpower decrements associated with recapitalization at Dobbins Air Reserve Base would be 22 total, including:

- 2 full-time officer positions
- 2 full-time enlisted positions
- 0 full-time civilian positions
- 10 part-time officer positions
- 8 part-time enlisted positions

**f. Point of Contact:**

**Name:** Paul Sanford  
**Title:** Environmental Planner  
**Organization:** AECOM  
**Email:** paul.sanford@aecom.com  
**Phone Number:** 813-675-6843



# AIR CONFORMITY APPLICABILITY MODEL REPORT

## RECORD OF CONFORMITY ANALYSIS (ROCA)

**2. Analysis:** Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the “worst-case” and “steady state” (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are: \_\_\_\_\_ applicable  
 \_\_\_X\_\_\_ not applicable

### Conformity Analysis Summary:

#### 2024

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Atlanta, GA			
VOC	0.022	100	No
NOx	0.117	100	No
CO	0.183		
SOx	0.000		
PM 10	0.006		
PM 2.5	0.004		
Pb	0.000		
NH3	0.000		
CO2e	41.7		

#### 2025

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Atlanta, GA			
VOC	0.000	100	No
NOx	0.000	100	No
CO	0.000		
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		
CO2e	0.0		

#### 2026

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Atlanta, GA			
VOC	-0.011	100	No
NOx	-0.007	100	No
CO	-0.153		
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	-0.001		
CO2e	-15.2		

#### 2027 - (Steady State)



# AIR CONFORMITY APPLICABILITY MODEL REPORT

## RECORD OF CONFORMITY ANALYSIS (ROCA)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Atlanta, GA			
VOC	-0.011	100	No
NOx	-0.007	100	No
CO	-0.153		
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	-0.001		
CO2e	-15.2		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.

\_\_\_\_\_  
Paul Sanford, Environmental Planner

\_\_\_\_\_  
DATE



# AIR CONFORMITY APPLICABILITY MODEL REPORT

## RECORD OF CONFORMITY ANALYSIS (ROCA)

**1. General Information:** The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

**a. Action Location:**

**Base:** MINNEAPOLIS-ST. PAUL JARS  
**State:** Minnesota  
**County(s):** Hennepin  
**Regulatory Area(s):** Minneapolis-St Paul, MN

**b. Action Title:** C-130J Recapitalization Environmental Assessment

**c. Project Number/s (if applicable):** Near-term Improvements Alternative 3 – Minneapolis-St. Paul Air Reserve Station, Minnesota

**d. Projected Action Start Date:** 4 / 2024

**e. Action Description:**

Near-term base facility modifications required to achieve minimal Initial Operations Capability to accept the C-130J aircraft and mission set.

The Proposed Action would implement the recapitalization of one squadron of eight C-130H aircraft to the C-130J model and make needed near-term modifications, improvements, and/or renovations to existing facilities and infrastructure (e.g., hangars, ramps) required to accommodate the C-130J model. The disposition of the existing C-130H fleet at the selected recapitalization AFRC base would be determined at a later date and is not part of the Proposed Action.

Near-term facility modifications at Minneapolis-St. Paul Air Reserve Station (Alternative 3) would include:

- Construct 20-foot by 14-foot nose pocket extension on Building 870 to enable the aircraft tow truck to remain on level surface and out of the weather during aircraft towing procedures.
- Restripe ramp to adjust taxiway positions in order to maintain aircraft safety separations for the longer C-130J.
- Install 8 new mooring points.
- Establish a composite materials shop in Building 710.
- Relocate sheet metal shop from Building 821 to the space adjacent to the composite material maintenance in Building 710.
- Install a new propeller balancing table in the engine shop of Building 822.

Operational changes at Minneapolis-St. Paul Air Reserve Station would include:

- Replace eight existing C-130H aircraft with eight C-130J-30 Aircraft

Manpower decrements associated with recapitalization at Minneapolis-St. Paul Air Reserve Station would be 23 total, including:

- 1 full-time officer position
- 0 full-time enlisted positions
- 3 full-time civilian positions
- 9 part-time officer positions
- 10 part-time enlisted positions

**f. Point of Contact:**

**Name:** Paul Sanford  
**Title:** Environmental Planner



# AIR CONFORMITY APPLICABILITY MODEL REPORT

## RECORD OF CONFORMITY ANALYSIS (ROCA)

**Organization:** AECOM  
**Email:** paul.sanford@aecom.com  
**Phone Number:** 813-675-6843

**2. Analysis:** Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the “worst-case” and “steady state” (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are: \_\_\_\_\_ applicable  
 \_\_X\_\_ not applicable

### Conformity Analysis Summary:

**2024**

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Minneapolis-St Paul, MN			
VOC	2.359		
NOx	0.204		
CO	0.326	100	No
SOx	0.001	100	No
PM 10	0.010		
PM 2.5	0.007		
Pb	0.000		
NH3	0.000		
CO2e	74.9		

**2025**

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Minneapolis-St Paul, MN			
VOC	0.000		
NOx	0.000		
CO	0.000	100	No
SOx	0.000	100	No
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		
CO2e	0.0		

**2026**

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Minneapolis-St Paul, MN			
VOC	-0.011		
NOx	-0.008		
CO	-0.165	100	No
SOx	0.000	100	No
PM 10	0.000		
PM 2.5	0.000		



# AIR CONFORMITY APPLICABILITY MODEL REPORT

## RECORD OF CONFORMITY ANALYSIS (ROCA)

<b>Pb</b>	0.000		
<b>NH3</b>	-0.001		
<b>CO2e</b>	-15.1		

### 2027 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Minneapolis-St Paul, MN			
VOC	-0.011		
NOx	-0.008		
CO	-0.165	100	No
SOx	0.000	100	No
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	-0.001		
CO2e	-15.1		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.

\_\_\_\_\_  
Paul Sanford, Environmental Planner

\_\_\_\_\_  
DATE



# AIR CONFORMITY APPLICABILITY MODEL REPORT

## RECORD OF CONFORMITY ANALYSIS (ROCA)

**1. General Information:** The Air Force's Air Conformity Applicability Model (ACAM) was used to perform an analysis to assess the potential air quality impact/s associated with the action in accordance with the Air Force Manual 32-7002, Environmental Compliance and Pollution Prevention; the Environmental Impact Analysis Process (EIAP, 32 CFR 989); and the General Conformity Rule (GCR, 40 CFR 93 Subpart B). This report provides a summary of the ACAM analysis.

**a. Action Location:**

**Base:** PETERSEN AFB  
**State:** Colorado  
**County(s):** El Paso  
**Regulatory Area(s):** Colorado Springs, CO

**b. Action Title:** C-130J Recapitalization Environmental Assessment

**c. Project Number/s (if applicable):** Near-term Improvements Alternative 4 – Peterson Space Force Base, Colorado

**d. Projected Action Start Date:** 4 / 2024

**e. Action Description:**

Near-term base facility modifications required to achieve minimal Initial Operations Capability to accept the C-130J aircraft and mission set.

The Proposed Action would implement the recapitalization of one squadron of eight C-130H aircraft to the C-130J model and make needed near-term modifications, improvements, and/or renovations to existing facilities and infrastructure (e.g., hangars, ramps) required to accommodate the C-130J model. The disposition of the existing C-130H fleet at the selected recapitalization AFRC base would be determined at a later date and is not part of the Proposed Action.

Near-term facility modifications at Peterson Space Force Base (Alternative 4) would include:

- Construct a 30-foot by 36-foot addition to the northwest side of Building 216, to establish a composite material maintenance shop.
- Install a new propeller balancing table in the engine shop bay of B-502.
- Restripe the airfield ramp to adjust taxiway positions in order to maintain aircraft safety separations for the longer C-130J.
- Install 8 new mooring points.

Operational changes at Peterson Space Force Base would include:

- Replace eight existing C-130H aircraft with eight C-130J-30 Aircraft

Manpower decrements associated with recapitalization at Peterson Space Force Base would be 35 total, including:

- 2 full-time officer positions
- 2 full-time enlisted positions
- 0 full-time civilian positions
- 14 part-time officer positions
- 17 part-time enlisted positions

**f. Point of Contact:**

**Name:** Paul Sanford  
**Title:** Environmental Planner  
**Organization:** AECOM  
**Email:** paul.sanford@aecom.com



# AIR CONFORMITY APPLICABILITY MODEL REPORT

## RECORD OF CONFORMITY ANALYSIS (ROCA)

Phone Number: 813-675-6843

**2. Analysis:** Total combined direct and indirect emissions associated with the action were estimated through ACAM on a calendar-year basis for the “worst-case” and “steady state” (net gain/loss upon action fully implemented) emissions. General Conformity under the Clean Air Act, Section 1.76 has been evaluated for the action described above according to the requirements of 40 CFR 93, Subpart B.

Based on the analysis, the requirements of this rule are: \_\_\_\_\_ applicable  
 \_\_\_X\_\_\_ not applicable

### Conformity Analysis Summary:

**2024**

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Colorado Springs, CO			
VOC	3.516		
NOx	0.189		
CO	0.298	100	No
SOx	0.001		
PM 10	0.014		
PM 2.5	0.007		
Pb	0.000		
NH3	0.000		
CO2e	68.9		

**2025**

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Colorado Springs, CO			
VOC	0.000		
NOx	0.000		
CO	0.000	100	No
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	0.000		
CO2e	0.0		

**2026**

	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Colorado Springs, CO			
VOC	-0.014		
NOx	-0.009		
CO	-0.187	100	No
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	-0.001		



# AIR CONFORMITY APPLICABILITY MODEL REPORT

## RECORD OF CONFORMITY ANALYSIS (ROCA)

<b>CO2e</b>	-19.7		
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### 2027 - (Steady State)

Pollutant	Action Emissions (ton/yr)	GENERAL CONFORMITY	
		Threshold (ton/yr)	Exceedance (Yes or No)
Colorado Springs, CO			
VOC	-0.014		
NOx	-0.009		
CO	-0.187	100	No
SOx	0.000		
PM 10	0.000		
PM 2.5	0.000		
Pb	0.000		
NH3	-0.001		
CO2e	-19.7		

None of estimated emissions associated with this action are above the conformity threshold values established at 40 CFR 93.153 (b); Therefore, the requirements of the General Conformity Rule are not applicable.

\_\_\_\_\_  
Paul Sanford, Environmental Planner

\_\_\_\_\_  
DATE



**C-130J Recapitalization  
Draft Environmental Assessment**

**APPENDIX B2 SUPPLEMENTAL AIR AND GHG EMISSIONS ANALYSIS OF POTENTIAL FUTURE  
FOC ACTIONS**



**C-130J Recapitalization  
Draft Environmental Assessment**

***Potential FOC Activities at Youngstown ARS***

Facility modifications that could be implemented at Youngstown ARS to further accommodate C-130J FOC include modifying locker rooms in Hangar 302, moving the nose pocket of Hangar 302 back approximately three feet, and upgrading building systems (e.g., fire suppression and fall protection). The cumulative effects to air quality for Alternative 1 include the net peak year emissions of ongoing emission reductions from manpower decrements already achieved, and temporary construction emissions increases that would result from FOC facility modifications if implemented. **Table B-1** depicts the net emissions changes for Alternative 1 if these FOC facility modifications were implemented, as calculated using ACAM. As demonstrated, the potential FOC emissions resulting from Alternative 1 would be well below the U.S. Air Force's insignificance indicators.

**TABLE B-1 FOC EMISSIONS – YOUNGSTOWN ARS**

Pollutant	Construction Emissions (Ton/Year)	Steady State Emissions (Ton/Year)	Net Emissions (Ton/Year)	Insignificance Indicator (Ton/Year)	Insignificance Indicator Exceeded?
VOC	0.074	-0.015	0.059	100	No
NO <sub>x</sub>	0.448	-0.01	0.438	100	No
CO	0.635	-0.219	0.416	250	No
SO <sub>x</sub>	0.001	0	0.001	250	No
PM 10	0.015	0	0.015	250	No
PM 2.5	0.015	0	0.015	250	No
Pb	0	0	0	25	No
NH <sub>3</sub>	0.001	-0.002	-0.001	250	No
CO <sub>2</sub> e	150.3	-21.5	128.8	75,000	No

Notes:

1 VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, Pb, and NH<sub>3</sub> emission rates = Tons per year. CO<sub>2</sub>e = Metric tons per year

CO<sub>2</sub>e = Carbon Dioxide Equivalent

Steady State emissions are resulting from ongoing manpower decrement compared to C-130H mission.

Source: ACAM (version 5.0.18a), run on 17 April 2023

The maximum net emissions increase would be approximately 128 metric tons of CO<sub>2</sub>e, including temporary increased construction emissions from potential facility modifications, and decreased emissions resulting from the manpower decrement. Temporary construction emissions would increase by 150.3 metric tons of CO<sub>2</sub>e, well below the insignificance indicator of 75,000 metric tons per year of CO<sub>2</sub>e.

***Potential FOC Activities at Dobbins ARB***

Facility modifications that could be implemented at Dobbins ARB to further accommodate C-130J FOC include demolishing an interior structure in Hangar 746 and modifying the hangar door cutout to accommodate the C-130J profile. The cumulative effects to air quality for Alternative 2 include the net peak year emissions of ongoing emission reductions from manpower decrements already achieved, and temporary construction emissions increases that would result from FOC facility modifications if implemented. **Table B-2** depicts the net emissions changes for Alternative 2 if these FOC facility modifications were implemented, as calculated using ACAM. As demonstrated, the potential FOC emissions resulting from Alternative 2 would be well below the U.S. Air Force's insignificance indicators.



**C-130J Recapitalization  
Draft Environmental Assessment**

**TABLE B-2 FOC EMISSIONS – DOBBINS ARB**

Pollutant	Construction Emissions (Ton/Year)	Steady State Emissions (Ton/Year)	Net Emissions (Ton/Year)	Insignificance Indicator (Ton/Year)	Insignificance Indicator Exceeded?
VOC	0.023	-0.011	0.012	100	No
NOx	0.128	-0.007	0.121	100	No
CO	0.184	-0.153	0.031	250	No
SOx	0	0	0	250	No
PM 10	0.006	0	0.006	250	No
PM 2.5	0.005	0	0.005	250	No
Pb	0	0	0	25	No
NH3	0	-0.001	-0.001	250	No
CO2e	41.8	-15.2	26.6	75,000	No

Notes:

1 VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, Pb, and NH<sub>3</sub> emission rates = Tons per year. CO<sub>2</sub>e = Metric tons per year

CO<sub>2</sub>e = Carbon Dioxide Equivalent

Steady State emissions are resulting from ongoing manpower decrement compared to C-130H mission.

Source: ACAM (version 5.0.18a), run on 17 April 2023

The maximum net emissions increase would be approximately 26.6 metric tons of CO<sub>2</sub>e, including temporary increased construction emissions from potential facility modifications, and decreased emissions resulting from the manpower decrement. Temporary construction emissions would increase by 41.8 metric tons of CO<sub>2</sub>e, well below the insignificance indicator of 75,000 metric tons per year of CO<sub>2</sub>e.

***Potential FOC Activities at Minneapolis-St. Paul ARS***

Facility modifications that could be implemented at Minneapolis-St. Paul ARS to further accommodate C-130J FOC include constructing a new Logistics Readiness Squadron facility, demolishing Building 801, Building 802, and Building 803 north of Hangar 821, paving the area of building demolition to accommodate C-130J aircraft turning, and constructing a 225-foot by 30-foot eyebrow to the Hangar 821 north bay. The cumulative effects to air quality for Alternative 3 include the net peak year emissions of ongoing emission reductions from manpower decrements already achieved, temporary construction emissions increases that would result from FOC facility modifications, and ongoing emissions increases from newly-installed space heating and emergency generator operation in the Logistics Readiness Squadron Facility if implemented. **Table B-3** depicts the net emissions changes for Alternative 3 if these FOC facility modifications were implemented, as calculated using ACAM. As demonstrated, the potential FOC emissions resulting from Alternative 3 would be well below the U.S. Air Force's insignificance indicators.



**C-130J Recapitalization  
Draft Environmental Assessment**

**TABLE B-3 FOC EMISSIONS – MINNEAPOLIS-ST. PAUL ARS**

Pollutant	Construction Emissions (Ton/Year)	Steady State Emissions (Ton/Year) Manpower	Steady State Emissions (Ton/Year) Facility	Net Emissions (Ton/Year)	Insignificance Indicator (Ton/Year)	Insignificance Indicator Exceeded?
<b>VOC</b>	0.638	-0.011	0.008	0.635	250	No
<b>NO<sub>x</sub></b>	0.652	-0.008	0.072	0.716	250	No
<b>CO</b>	0.825	-0.165	0.057	0.717	100	No
<b>SO<sub>x</sub></b>	0.007	0	0.005	0.012	100	No
<b>PM 10</b>	0.363	0	0.009	0.372	250	No
<b>PM 2.5</b>	0.027	0	0.009	0.036	250	No
<b>Pb</b>	0	0	0	0	25	No
<b>NH<sub>3</sub></b>	0.002	-0.001	0	0.001	250	No
<b>CO<sub>2</sub>e</b>	269.9	-15.1	61.5	316.3	75,000	No

Notes:

1 VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, Pb, and NH<sub>3</sub> emission rates = Tons per year. CO<sub>2</sub>e = Metric tons per year

CO<sub>2</sub>e = Carbon Dioxide Equivalent

Steady State emissions are resulting from both ongoing manpower decrement compared to C-130H mission, as well as new facility emissions.

Source: ACAM (version 5.0.18a), run on 17 April 2023

The maximum net emissions increase would be approximately 316.3 metric tons of CO<sub>2</sub>e, during construction of additional facility modifications, well below the insignificance indicator of 75,000 metric tons per year of CO<sub>2</sub>e. This includes 269.9 metric tons of CO<sub>2</sub>e from construction activities, an ongoing increase of 61.5 metric tons of CO<sub>2</sub>e from newly installed space heating and emergency generator operations, and a -15.1 metric tons of CO<sub>2</sub>e decrease from the manpower decrement. Implementation of Alternative 3 FOC projects would result in an ongoing emissions increase of 61.5 metric tons per year of CO<sub>2</sub>e,

***Potential FOC Activities at Peterson SFB***

Facility modifications that could be implemented at Peterson SFB to further accommodate C-130J FOC include construction a 20-foot extension (eyebrow) to the Hangar 210 right bay, constructing a 160-foot by 20-foot eyebrow to Hangar 214, and upgrading building systems (e.g., fire suppression and fall protection) for Hangar 210 and Hangar 214. The cumulative effects to air quality for Alternative 4 include the net peak year emissions of ongoing emission reductions from manpower decrements already achieved, and temporary construction emissions increases that would result from FOC facility modifications if implemented. **Table B-4** depicts the net emissions changes for Alternative 4 if these FOC facility modifications were implemented, as calculated using ACAM. As demonstrated, the potential FOC emissions resulting from Alternative 4 would be well below the U.S. Air Force's insignificance indicators.



**C-130J Recapitalization  
Draft Environmental Assessment**

**TABLE B-4 FOC EMISSIONS – PETERSON SFB**

<b>Pollutant</b>	<b>Construction Emissions (Ton/Year)</b>	<b>Steady State Emissions (Ton/Year)</b>	<b>Net Emissions (Ton/Year)</b>	<b>Insignificance Indicator (Ton/Year)</b>	<b>Insignificance Indicator Exceeded?</b>
<b>VOC</b>	0.124	-0.014	0.11	250	No
<b>NO<sub>x</sub></b>	0.486	-0.009	0.477	250	No
<b>CO</b>	0.633	-0.187	0.446	100	No
<b>SO<sub>x</sub></b>	0.001	0	0.001	250	No
<b>PM 10</b>	0.019	0	0.019	250	No
<b>PM 2.5</b>	0.015	0	0.015	250	No
<b>Pb</b>	0	0	0	25	No
<b>NH<sub>3</sub></b>	0.002	-0.001	0.001	250	No
<b>CO<sub>2</sub>e</b>	172.2	-19.7	152.5	75,000	No

Notes:

1 VOC, NO<sub>x</sub>, CO, SO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, Pb, and NH<sub>3</sub> emission rates = Tons per year. CO<sub>2</sub>e = Metric tons per year

CO<sub>2</sub>e = Carbon Dioxide Equivalent

Steady State emissions are resulting from ongoing manpower decrement compared to C-130H mission.

Source: ACAM (version 5.0.18a), run on 17 April 2023



**C-130J Recapitalization  
Draft Environmental Assessment**

**APPENDIX C BIOLOGICAL RESOURCES DOCUMENTATION**





## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Ohio Ecological Services Field Office

4625 Morse Road, Suite 104

Columbus, OH 43230-8355

Phone: (614) 416-8993 Fax: (614) 416-8994



In Reply Refer To:

Project Code: 2023-0082692

Project Name: C-130J Recap Alternative 1 - Youngstown ARS

May 17, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological



evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

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Attachment(s):

- Official Species List



## OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Ohio Ecological Services Field Office**

4625 Morse Road, Suite 104

Columbus, OH 43230-8355

(614) 416-8993

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## PROJECT SUMMARY

**Project Code:** 2023-0082692  
**Project Name:** C-130J Recap Alternative 1 - Youngstown ARS  
**Project Type:** Airport - Maintenance/Modification  
**Project Description:** Near term facility modifications (i.e., building renovation/modification, aircraft apron reconfiguration) to potentially recapitalize C-130H aircraft with C-130J aircraft. Facility modifications necessary to accept the C-130J at Youngstown ARS and achieve IOC would include establishing a composite material maintenance shop, co-located with a corrosion maintenance shop in Building 302, requiring installation of a fume vent system with exhaust to the building exterior, as well as enclosing an interior area of Building 203 to provide environmentally conditioned space to store engines and propellers. An elevated mezzanine containing a mechanical room (585 square feet) in the hangar nose pocket of Building 295 would also need to be demolished to accommodate the increased length of the new C-130J aircraft for fuel cell maintenance. The airfield ramp would also require re-striping to adjust taxiway positions to accommodate the longer C-130J model in order to maintain aircraft safety separations.

**Project Location:**

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.26881085,-80.68012034984095,14z>



**Counties:** Trumbull County, Ohio

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## ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## MAMMALS

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5949">https://ecos.fws.gov/ecp/species/5949</a>	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

## REPTILES

NAME	STATUS
Eastern Massasauga (=rattlesnake) <i>Sistrurus catenatus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2202">https://ecos.fws.gov/ecp/species/2202</a>	Threatened

## INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

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## **CRITICAL HABITATS**

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

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## **IPAC USER CONTACT INFORMATION**

Agency: Air Force  
Name: Paul Sanford  
Address: 7650 W Courtney Campbell Causeway  
City: Tampa  
State: FL  
Zip: 33607  
Email: paul.sanford@aecom.com  
Phone: 8136756843

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## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Ohio Ecological Services Field Office

4625 Morse Road, Suite 104

Columbus, OH 43230-8355

Phone: (614) 416-8993 Fax: (614) 416-8994



In Reply Refer To:

Project code: 2023-0082692

Project Name: C-130J Recap Alternative 1 - Youngstown ARS

May 17, 2023

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

**Subject:** Technical assistance for 'C-130J Recap Alternative 1 - Youngstown ARS'

Dear Paul Sanford:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on May 17, 2023, for 'C-130J Recap Alternative 1 - Youngstown ARS' (here forward, Project). This project has been assigned Project Code 2023-0082692 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

### **Ensuring Accurate Determinations When Using IPaC**

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter.

### **Determination for the Northern Long-Eared Bat**

Based upon your IPaC submission and a standing analysis, your project is not reasonably certain to cause incidental take of the northern long-eared bat. Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.



## Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Eastern Massasauga (=rattlesnake) *Sistrurus catenatus* Threatened
- Indiana Bat *Myotis sodalis* Endangered
- Monarch Butterfly *Danaus plexippus* Candidate
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above. Note that if a new species is listed that may be affected by the identified action before it is complete, additional review is recommended to ensure compliance with the Endangered Species Act.

## Next Step

Consultation with the Service is necessary. The project has a federal nexus (e.g., Federal funds, permit, etc.), but you are not the federal action agency or its designated (in writing) non-federal representative. Therefore, the ESA consultation status is incomplete and no project activities should occur until consultation between the Service and the Federal action agency (or designated non-federal representative), is completed.

As the federal agency or designated non-federal representative deems appropriate, they should submit their determination of effects to the Service by doing the following.

1. Log into IPaC using an agency email account and click on My Projects, click "Search by record locator" to find this Project using **302-126517085**. (Alternatively, the originator of the project in IPaC can add the agency representative to the project by using the Add Member button on the project home page.)
2. Review the answers to the Northern Long-eared Bat Range-wide Determination Key to ensure that they are accurate.
3. Click on Review/Finalize to convert the 'not likely to adversely affect' consistency letter to a concurrence letter. Download the concurrence letter for your files if needed.

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place before project implements any changes which are final or commits additional resources.

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If you have any questions regarding this letter or need further assistance, please contact the Ohio Ecological Services Field Office and reference Project Code 2023-0082692 associated with this Project.

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**Action Description**

You provided to IPaC the following name and description for the subject Action.

**1. Name**

C-130J Recap Alternative 1 - Youngstown ARS

**2. Description**

The following description was provided for the project 'C-130J Recap Alternative 1 - Youngstown ARS':

Near term facility modifications (i.e., building renovation/modification, aircraft apron reconfiguration) to potentially recapitalize C-130H aircraft with C-130J aircraft. Facility modifications necessary to accept the C-130J at Youngstown ARS and achieve IOC would include establishing a composite material maintenance shop, co-located with a corrosion maintenance shop in Building 302, requiring installation of a fume vent system with exhaust to the building exterior, as well as enclosing an interior area of Building 203 to provide environmentally conditioned space to store engines and propellers. An elevated mezzanine containing a mechanical room (585 square feet) in the hangar nose pocket of Building 295 would also need to be demolished to accommodate the increased length of the new C-130J aircraft for fuel cell maintenance. The airfield ramp would also require re-striping to adjust taxiway positions to accommodate the longer C-130J model in order to maintain aircraft safety separations.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.26881085,-80.68012034984095,14z>





## DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect, but not likely to adversely affect” for the Endangered northern long-eared bat (*Myotis septentrionalis*).

## QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

**Note:** Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

**Note:** For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

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6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

**Note:** This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

No

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

**Note:** Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

No

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10. Have you contacted the appropriate agency to determine if your action is near any known northern long-eared bat hibernacula?

**Note:** A document with links to Natural Heritage Inventory databases and other state-specific sources of information on the locations of northern long-eared bat hibernacula is available [here](#). Location information for northern long-eared bat hibernacula is generally kept in state natural heritage inventory databases – the availability of this data varies by state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited.

*No*

11. Will the proposed action result in the cutting or other means of knocking down, bringing down, or trimming of any trees suitable for northern long-eared bat roosting?

**Note:** Suitable northern long-eared bat roost trees are live trees and/or snags  $\geq 3$  inches dbh that have exfoliating bark, cracks, crevices, and/or cavities.

*No*

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## PROJECT QUESTIONNAIRE

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

0.0

Will all potential northern long-eared bat (NLEB) roost trees (trees  $\geq 3$  inches diameter at breast height, dbh) be cut, knocked, or brought down from any portion of the action area greater than or equal to 0.1 acre? If all NLEB roost trees will be removed from multiple areas, select 'Yes' if the cumulative extent of those areas meets or exceeds 0.1 acre.

No

Enter the extent of the action area (in acres) from which all potential NLEB roost trees will be removed. If all NLEB roost trees will be removed from multiple areas, entire the total extent of those areas. Round up to the nearest tenth of an acre.

0.0

For the area from which all potential northern long-eared bat (NLEB) roost trees will be removed, on how many acres (round to the nearest tenth of an acre) will trees be allowed to regrow? Enter '0' if the entire area from which all potential NLEB roost trees are removed will be developed or otherwise converted to non-forest for the foreseeable future.

0.0

Will any snags (standing dead trees)  $\geq 3$  inches dbh be left standing in the area(s) in which all northern long-eared bat roost trees will be cut, knocked down, or otherwise brought down?

No

Will all project activities be completed by April 1, 2024?

Yes

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**IPAC USER CONTACT INFORMATION**

Agency: Air Force  
Name: Paul Sanford  
Address: 7650 W Courtney Campbell Causeway  
City: Tampa  
State: FL  
Zip: 33607  
Email: paul.sanford@aecom.com  
Phone: 8136756843

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# C-130J RECAP ALTERNATIVE 1 - YOUNGSTOWN ARS

## BIOLOGICAL ANALYSIS

Prepared using IPaC

Generated by Allison Carr (allison.carr@aecom.com)

May 18, 2023

The purpose of this document is to assess the effects of the proposed project and determine whether the project may affect any federally threatened, endangered, proposed, or candidate species. If appropriate for the project, this document may be used as a biological assessment (BA), as it is prepared in accordance with legal requirements set forth under [Section 7 of the Endangered Species Act \(16 U.S.C. 1536 \(c\)\)](#).

In this document, any data provided by U.S. Fish and Wildlife Service is based on data as of May 17, 2023.

Prepared using IPaC version 6.92.0-rc7



# **C-130J RECAP ALTERNATIVE 1 - YOUNGSTOWN ARS BIOLOGICAL ASSESSMENT**

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# 1 DESCRIPTION OF THE ACTION

## 1.1 PROJECT NAME

C-130J Recap Alternative 1 - Youngstown ARS

## 1.2 EXECUTIVE SUMMARY

See narrative provided.

## 1.3 EFFECT DETERMINATION SUMMARY

SPECIES (COMMON NAME)	SCIENTIFIC NAME	LISTING STATUS	PRESENT IN ACTION AREA	EFFECT DETERMINATION
<a href="#">Eastern Massasauga (=rattlesnake)</a>	Sistrurus catenatus	Threatened	No	NE
<a href="#">Indiana Bat</a>	Myotis sodalis	Endangered	No	NE
<a href="#">Monarch Butterfly</a>	Danaus plexippus	Candidate	Excluded from analysis	Excluded from analysis
Northern Long-eared Bat <sup>†</sup> . <b>This species or critical habitat is covered by a DKey.</b>	Myotis septentrionalis	Endangered		NLAA
<a href="#">Tricolored Bat</a>	Perimyotis subflavus	Proposed Endangered	Excluded from analysis	Excluded from analysis

<sup>†</sup> This species or critical habitat is covered by a DKey.



## 1.4 PROJECT DESCRIPTION

### 1.4.1 LOCATION



#### LOCATION

Trumbull County, Ohio

### 1.4.2 DESCRIPTION OF PROJECT HABITAT

Youngstown ARS is surrounded by forests and fields, but the installation itself is composed of primarily urban areas with limited habitat available. The largest habitat is a 32-acre woodland forest is located on the installation, however, the Proposed Action does not involve any work in forested areas. Facility modifications necessary to accept the C-130J at Youngstown ARS would all occur in areas that have already been fully developed.



### 1.4.3 PROJECT PROPONENT INFORMATION

*Provide information regarding who is proposing to conduct the project, and their contact information. Please provide details on whether there is a Federal nexus.*

#### REQUESTING AGENCY

Department of Defense

#### FULL NAME

Allison Carr

#### STREET ADDRESS

10 Orms Street, Ste 405

#### CITY

Providence

#### STATE

RI

#### ZIP

02904

#### PHONE NUMBER

3025846295

#### E-MAIL ADDRESS

allison.carr@aecom.com

#### LEAD AGENCY

Lead agency is the same as requesting agency

### 1.4.4 PROJECT PURPOSE

The purpose of the Proposed Action is to replace existing C-130H aircraft with the congressionally approved eight state-of-the-art C-130J aircraft. The proposed recapitalization of the C-130H to the C-130J model is needed to respond to evolving mission needs and operational demands, particularly in response to weather-related events. The C-130J model performance enhances situational awareness in low-level flying conditions compared to the C-130H model.

The minimum age of C-130H aircraft currently in use is 27 years and is nearing the end of its useful life, including decreasing operational reliability, and increasing routine maintenance costs. The C-130J incorporates state-of-the-art technology, which reduces manpower requirements, lowers operating and support costs, and provides long-term life-cycle cost savings over the C-130H model. Compared to older C-130s, the C-130J model climbs faster and higher, flies farther at a higher cruise speed, and takes off and lands over a shorter distance. The C-130J has a smaller crew and requires fewer support personnel (manpower) compared to the C-130H.

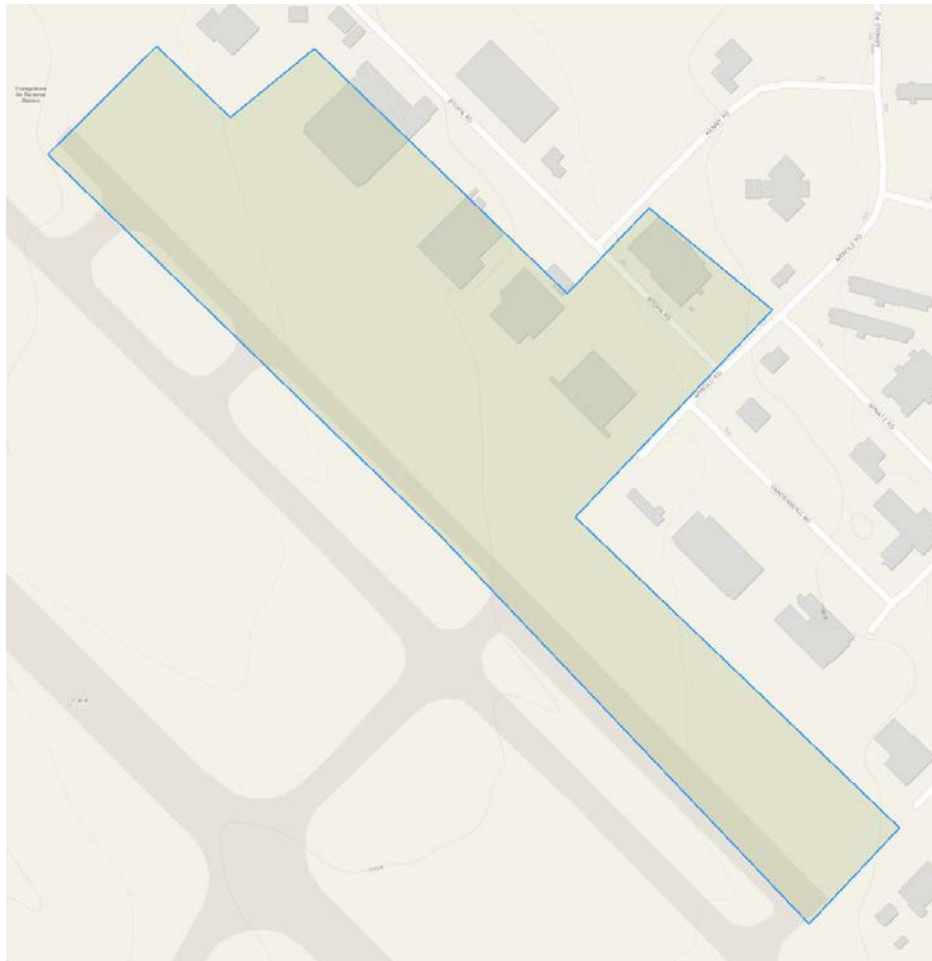
If Youngstown ARB were selected as the intended location for receipt of the C-130J, the described facility modifications would be necessary to provide adequate facility space and airfield parking/movement space for the 15-foot longer C-130J aircraft.



## 1.4.5 PROJECT TYPE AND DECONSTRUCTION

This project is a building and airfield modifications project.

### 1.4.5.1 PROJECT MAP



#### LEGEND



Project footprint



Building and airfield modifications: Building and airfield modifications



#### **1.4.5.2 BUILDING AND AIRFIELD MODIFICATIONS**

##### **ACTIVITY START DATE**

September 29, 2023

##### **ACTIVITY END DATE**

March 31, 2024

##### **STRESSORS**

This activity is not expected to have any impact on the environment.

##### **DESCRIPTION**

Near term facility modifications (i.e., building renovation/modification, aircraft apron reconfiguration) to potentially recapitalize C-130H aircraft with C-130J aircraft. Facility modifications necessary to accept the C-130J at Youngstown ARS and achieve IOC would include establishing a composite material maintenance shop, co-located with a corrosion maintenance shop in Building 302, requiring installation of a fume vent system with exhaust to the building exterior, as well as enclosing an interior area of Building 203 to provide environmentally conditioned space to store engines and propellers. An elevated mezzanine containing a mechanical room (585 square feet) in the hangar nose pocket of Building 295 would also need to be demolished to accommodate the increased length of the new C-130J aircraft for fuel cell maintenance. The airfield ramp would also require re-striping to adjust taxiway positions to accommodate the longer C-130J model in order to maintain aircraft safety separations.

#### **1.4.6 ANTICIPATED ENVIRONMENTAL STRESSORS**

*Describe the anticipated effects of your proposed project on the aspects of the land, air and water that will occur due to the activities above. These should be based on the activity deconstructions done in the previous section and will be used to inform the action area.*

##### **1.4.6.1 ANIMAL FEATURES**

Individuals from the Animalia kingdom, such as raptors, mollusks, and fish. This feature also includes byproducts and remains of animals (e.g., carrion, feathers, scat, etc.), and animal-related structures (e.g., dens, nests, hibernacula, etc.).

##### **1.4.6.2 PLANT FEATURES**

Individuals from the Plantae kingdom, such as trees, shrubs, herbs, grasses, ferns, and mosses. This feature also includes products of plants (e.g., nectar, flowers, seeds, etc.).



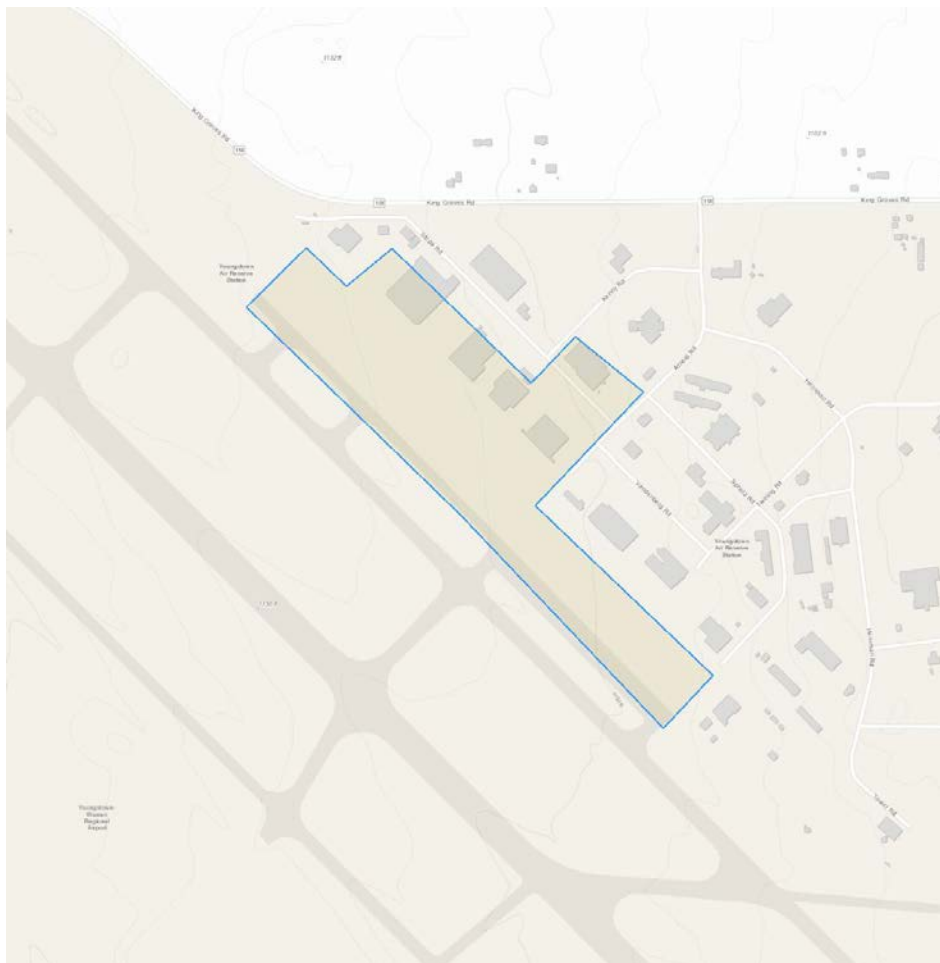
### 1.4.6.3 AQUATIC FEATURES

Bodies of water on the landscape, such as streams, rivers, ponds, wetlands, etc., and their physical characteristics (e.g., depth, current, etc.). This feature includes the groundwater and its characteristics. Water quality attributes (e.g., turbidity, pH, temperature, DO, nutrients, etc.) should be placed in the Environmental Quality Features.



### 1.4.6.4 MISCELLANEOUS

Miscellaneous should only be used if the created feature does not fit into one of the other categories or if the creator is not sure in which category it should be placed.

## 1.5 ACTION AREA



### LEGEND

-  Project footprint
-  Stressor location



## **1.6 CONSERVATION MEASURES**

*Describe any proposed measures being implemented as part of the project that are designed to reduce the impacts to the environment and their resulting effects to listed species. To avoid extra verbiage, don't list measures that have no relevance to the species being analyzed.*

*No conservation measures have been selected for this project.*

## **1.7 PRIOR CONSULTATION HISTORY**

None

## **1.8 OTHER AGENCY PARTNERS AND INTERESTED PARTIES**

None

## **1.9 OTHER REPORTS AND HELPFUL INFORMATION**

None



## 2 SPECIES EFFECTS ANALYSIS

*This section describes, species by species, the effects of the proposed action on listed, proposed, and candidate species, and the habitat on which they depend. In this document, effects are broken down as direct interactions (something happening directly to the species) or indirect interactions (something happening to the environment on which a species depends that could then result in effects to the species).*

*These interactions encompass effects that occur both during project construction and those which could be ongoing after the project is finished. All effects, however, should be considered, including effects from direct and indirect interactions and cumulative effects.*

### 2.1 EASTERN MASSASAUGA (=RATTLESNAKE)

*This species has been excluded from analysis in this environmental review document.*

#### JUSTIFICATION FOR EXCLUSION

The habitat for the Eastern Massasauga (*Sistrurus catenatus*) includes wet prairies, marshes, and low areas along rivers and lakes. The action area is located completely on developed airfield pavement and facility space on-installation in upland areas. No rivers or lakes are located nearby. Therefore, there is no habitat for this species in the action area.

### 2.2 INDIANA BAT

*This species has been excluded from analysis in this environmental review document.*

#### JUSTIFICATION FOR EXCLUSION

This species hibernates in caves and mines during winter. Summer habitat includes roost trees that are within canopy gaps in a forest, in a fence line, or along a wooded edge. The construction of the Proposed Action would occur in developed portions of the installation where the species is unlikely to be present.



## **2.3 MONARCH BUTTERFLY**

*This species has been excluded from analysis in this environmental review document.*

### **JUSTIFICATION FOR EXCLUSION**

The action area is located on completely developed airfield area, unpaved areas of which are mowed/ maintained. It is unlikely that the action area contains vegetation or habitat that would be desirable by this species for feeding and reproduction activities.

## **2.4 TRICOLORED BAT**

*This species has been excluded from analysis in this environmental review document.*

### **JUSTIFICATION FOR EXCLUSION**

This species roosts among live a dead leaf cluster of live or recently dead hardwood trees during the non-hibernating season and hibernates in caves and mines during winter. The action area is located on completely developed airfield area and there are no caves or mines near the action area, therefore, habitat for this species is not present.



### **3 CRITICAL HABITAT EFFECTS ANALYSIS**

*No critical habitats intersect with the project action area.*



## **4 SUMMARY DISCUSSION AND CONCLUSION**

### **4.1 SUMMARY DISCUSSION**

Vegetation: Facility modifications necessary to accept the C-130J at Youngstown ARS would occur in areas that have already been fully developed. The 32-acre forest would not be disturbed under Alternative 1. No new vegetation would be disturbed during the construction or operation of Alternative 1, therefore, Alternative 1 would have no effect on vegetation.

Wildlife: Wildlife habitat on Youngstown ARB is limited by existing military operations and development on the installation. The largest habitat for wildlife, the woodland forest, would not be disturbed under Alternative 1. The construction and operation of Alternative 1 would also occur in developed portions of the installation where wildlife are unlikely to be present during daylight hours. Therefore, Alternative 1 would have no effect on wildlife.

Special Status Species: Please refer to Species Presence narrative, which indicates that suitable habitat is not present in the action area for any species being considered. Facility modifications necessary to accept the C-130J at Youngstown ARS would occur in areas that have already been fully developed.

### **4.2 CONCLUSION**

In conclusion, the facility and airfield modifications planned should Youngstown ARS be selected as the installation to receive the C-130J aircraft would be minor in nature. The action area for these modifications is on already disturbed and developed land and likely does not provide suitable habitat for any species considered. No critical habitat exists in the area. A "No Effect" determination is recommended for these species.





## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Georgia Ecological Services Field Office  
355 East Hancock Avenue  
Room 320  
Athens, GA 30601-2523  
Phone: (706) 613-9493 Fax: (706) 613-6059



In Reply Refer To:

May 17, 2023

Project Code: 2023-0081760

Project Name: C-130J Recap Alternative 2 - Dobbins ARB

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Thank you for your request for information on federally listed species and important wildlife habitats that may occur in your project area. The U.S. Fish and Wildlife Service (Service) has responsibility for certain species of wildlife under the Endangered Species Act (ESA) of 1973 as amended (16 USC 1531 et seq.), the Migratory Bird Treaty Act (MBTA) as amended (16 USC 701-715), Fish and Wildlife Coordination Act (FWCA) (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and the Bald and Golden Eagle Protection Act (BGEPA) as amended (16 USC 668-668c). We are providing the following guidance to assist you in determining which federally imperiled species may or may not occur within your project area and to recommend some conservation measures that can be included in your project design if you determine those species or designated critical habitat may be affected by your proposed project.

### **FEDERALLY-LISTED SPECIES AND DESIGNATED CRITICAL HABITAT**

Attached is a list of endangered, threatened, and proposed species that may occur in your project area. Your project area may not necessarily include all or any of these species. Under the ESA, it is the responsibility of the Federal action agency, project proponent, or their designated representative to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service, to make "no effect" determinations. If you determine that your proposed action will have "no effect" on threatened or endangered species or their respective critical habitat, you do not need to seek concurrence with the Service. Nevertheless, it is a violation of Federal law to harm or harass any federally listed threatened or endangered fish or wildlife species without the appropriate permit. If you need additional information to assist in your effect determination, please contact the Service.



If you determine that your proposed action may affect federally listed species, please consult with the Service. Through the consultation process, we will analyze information contained in a biological assessment or equivalent document that you provide. If your proposed action is associated with Federal funding or permitting, consultation will occur with the Federal agency under section 7(a)(2) of the ESA. Otherwise, an incidental take permit pursuant to section 10(a)(1)(B) of the ESA (also known as a Habitat Conservation Plan) may be necessary to exempt harm or harass federally listed threatened or endangered fish or wildlife species. For more information regarding formal consultation and HCPs, please see the Service's [Section 7 Consultation Library](#) and [Habitat Conservation Plans Library](#) Collections.

**Action Area.** The scope of federally listed species compliance not only includes direct effects, but also any indirect effects of project activities (e.g., equipment staging areas, offsite borrow material areas, or utility relocations). The action area is the spatial extent of an action's direct and indirect modifications or impacts to the land, water, or air (50 CFR 402.02). Large projects may have effects to land, water, or air outside the immediate footprint of the project, and these areas should be included as part of the action area. Effects to land, water, or air outside of a project footprint could include things like lighting, dust, smoke, and noise. To obtain a complete list of species, the action area should be uploaded or drawn in IPaC rather than just the project footprint.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. An updated list may be requested through IPaC.

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**How to Submit a Project Review Package.** If you determine that your action may affect any federally listed species and would like technical assistance from our office, please send us a complete project review package. A step by step guide is available at the Georgia Ecological Services [Project Planning and Review](https://www.fws.gov/office/georgia-ecological-services/project-planning-review) page (<https://www.fws.gov/office/georgia-ecological-services/project-planning-review>).

Beginning April 1, 2023, requests for threatened and endangered species project reviews must be submitted to our office using the process described below. (If you are not emailing us to submit a project for review, your email will be forwarded to the appropriate staff.) This is a three-step process. All steps must be completed to ensure your project is reviewed by a biologist in our office and you receive a timely response. In brief the steps are:

**Step 1.** Request an official species list for your project through IPaC (Done!)

**Step 2.** Complete applicable Determination Keys

**Step 3.** Send your complete project review package to **GAES\_Assistance@FWS.gov** for review if no dKey is applicable or all aspects of the project are not addressed by dKeys, i.e. a species returned by IPaC does not have a dKey to address impacts to it. A complete project review package should include:

1. A description of the proposed action, including any measures intended to avoid, minimize, or offset effects of the action. The description shall provide sufficient detail to assess the effects of the action on listed species and critical habitat, such as the purpose of the action; duration and timing of the action; location (latitude and longitude); specific activities involving disturbance to land, water, and air, and how they will be carried out; current description of areas to be affected directly or indirectly by the action; and maps, drawings, or similar schematics of the action.
2. An updated Official Species List and dKey results
3. Biological Assessments (may include habitat assessments and information on the presence of listed species in the action area);
4. Description of effects of the action on species in the action area and, if relevant, effect determinations for species and critical habitat;
5. Conservation measures and any other available information related to the nature and scope of the proposed action relevant to its effects on listed species or designated critical habitat (e.g., management plans related to stormwater, vegetation, erosion and sediment plans). Visit the [Georgia Conservation Planning Toolbox](https://www.fws.gov/story/conservation-tools-georgia) (<https://www.fws.gov/story/conservation-tools-georgia>) for information about conservation measures.
6. In the email subject line, use the following format to include the Project Code from your IPaC species list and the county in which the project is located (Example: Project Code: 2023-0049730 Gwinnett Co.). For Georgia Department of Transportation related projects, please work with the Office of Environmental Services ecologist to determine the appropriate USFWS transportation liaison.

The Georgia Ecological Services Field Office will send a response email within approximately 30 days of receipt with technical assistance or further recommendations for specific species.

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## WETLANDS AND FLOODPLAINS

Under Executive Orders 11988 and 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and floodplains, and preserve and enhance their natural and beneficial values. These habitats should be conserved through avoidance, or mitigated to ensure that there would be no net loss of wetlands function and value. We encourage you to use the National Wetland Inventory (NWI) maps in conjunction with ground-truthing to identify wetlands occurring in your project area. The Service's [NWI program website](https://www.fws.gov/program/national-wetlands-inventory) (<https://www.fws.gov/program/national-wetlands-inventory>) integrates digital map data with other resource information. We also recommend you contact the U.S. Army Corps of Engineers for permitting requirements under section 404 of the Clean Water Act if your proposed action could impact floodplains or wetlands.

## MIGRATORY BIRDS

The MBTA prohibits the taking of migratory birds, nests, and eggs, except as permitted by the Service's [Migratory Birds Program](https://fws.gov/program/migratory-birds) (<https://fws.gov/program/migratory-birds>). To minimize the likelihood of adverse impacts to migratory birds, we recommend construction activities occur outside the general bird nesting season from March through August, or that areas proposed for construction during the nesting season be surveyed, and when occupied, avoided until the young have fledged.

We recommend review of Birds of Conservation Concern to fully evaluate the effects to the birds at your site. This list identifies birds that are potentially threatened by disturbance and construction. It can be found at the Service's [Migratory Birds Conservation Library Collection](https://fws.gov/library/collections/migratory-bird-conservation-documents) (<https://fws.gov/library/collections/migratory-bird-conservation-documents>).

Information related to best practices and migratory birds can be found at the Service's [Avoiding and Minimizing Incidental Take of Migratory Birds Library Collection](https://fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds) (<https://fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>).

## BALD AND GOLDEN EAGLES

The bald eagle (*Haliaeetus leucocephalus*) was delisted under the ESA on August 9, 2007. Both the bald eagle and golden eagle (*Aquila chrysaetos*) are still protected under the MBTA and BGEPA. The BGEPA affords both eagles protection in addition to that provided by the MBTA, in particular, by making it unlawful to “disturb” eagles. Under the BGEPA, the Service may issue limited permits to incidentally “take” eagles (e.g., injury, interfering with normal breeding, feeding, or sheltering behavior nest abandonment). For information on bald and golden eagle management guidelines, we recommend you review information provided at the Service's [Bald and Golden Eagle Management Library Collection](https://fws.gov/library/collections/bald-and-golden-eagle-management) (<https://fws.gov/library/collections/bald-and-golden-eagle-management>).

## NATIVE BATS

If your species list includes Indiana bat (*Myotis sodalis*) or northern long-eared bat (*M. septentrionalis*) and the project is expected to impact forested habitat that is appropriate for maternity colonies of these species, forest clearing should occur outside of the period when bats may be present. Federally listed bats could be actively present in forested landscapes from April

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1 to October 15 of any year and have non-volant pups from May 15 to July 31 in any year. Non-volant pups are incapable of flight and are vulnerable to disturbance during that time.

Indiana, northern long-eared, and gray (*M. grisescens*) bats are all known to utilize bridges and culverts in Georgia. If your project includes maintenance, construction, or any other modification or demolition to transportation structures, a qualified individual should complete a survey of these structures for bats and submit your findings via the Georgia Bats in Bridges cell phone application, free on Apple and Android devices. Please include these findings in any biological assessment(s) or other documentation that is submitted to our office for technical assistance or consultation.

Additional information can be found at Georgia Ecological Services' [Conservation Planning Toolbox](#) and [Bat Conservation in Georgia](#) pages.

### **MONARCH BUTTERFLY**

On December 20, 2020, the Service determined that listing the Monarch butterfly (*Danaus plexippus*) under the Endangered Species Act is warranted but precluded at this time by higher priority listing actions. With this finding, the monarch butterfly becomes a candidate for listing. The Service will review its status each year until we are able to begin developing a proposal to list the monarch.

As it is a candidate for listing, the Service welcomes conservation measures for this species. Recommended, and voluntary, conservation measures for projects in Georgia can be found at our [Monarch Conservation in Georgia](https://www.fws.gov/project/monarch-conservation-georgia) (<https://www.fws.gov/project/monarch-conservation-georgia>) page.

### **EASTERN INDIGO SNAKE**

The [Standard Protection Measures for the Eastern Indigo Snake](#) (*Drymarchon couperi*) include educational materials and training that can help protect the species by making staff working on a project site aware of their presence and traits. In Georgia, indigo snakes are closely associated with the state-listed gopher tortoise (*Gopherus polyphemus*), a reptile that excavates extensive underground burrows that provide the snake shelter from winter cold and summer desiccation.

### **SOLAR ENERGY DEVELOPMENT**

The Georgia Low Impact Solar Siting Tool (LISST) is available as a map layer in IPaC (Find it in the “Layers” Box > “Environmental Data”) and as a [web application](#) to provide project managers with the data to identify areas that may be preferred for low impact development. The tool seeks to support the acceleration of large-scale solar development in areas with less impact to the environment.

### **STATE AGENCY COORDINATION**

Additional information that addresses at-risk or high priority natural resources can be found in the State Wildlife Action Plan (<https://georgiawildlife.com/WildlifeActionPlan>), at Georgia Department of Natural Resources, Wildlife Resources Division Biodiversity Portal (<https://georgiawildlife.com/conservation/species-of-concern>), Georgia's Natural, Archaeological, and

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Historic Resources GIS portal (<https://www.gnahrgis.org/gnahrgis/index.do>), and the [Georgia Ecological Services HUC10 Watershed Guidance](#) page.

Thank you for your concern for endangered and threatened species. We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area. For further consultation on your proposed activity, please email [gaes\\_assistance@fws.gov](mailto:gaes_assistance@fws.gov) and reference the project county and your Service Project Tracking Number.

This letter constitutes Georgia Ecological Services' general comments under the authority of the Endangered Species Act.

Attachment(s):

- Official Species List
- Migratory Birds
- Wetlands



## OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Georgia Ecological Services Field Office**

355 East Hancock Avenue

Room 320

Athens, GA 30601-2523

(706) 613-9493

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## PROJECT SUMMARY

**Project Code:** 2023-0081760  
**Project Name:** C-130J Recap Alternative 2 - Dobbins ARB  
**Project Type:** Airport - Maintenance/Modification  
**Project Description:** Near term facility modifications (i.e., building renovation/modification, aircraft apron reconfiguration) to potentially recapitalize C-130H aircraft with C-130J aircraft. Facility modifications necessary to accept the C-130J at Dobbins ARB and achieve IOC would include establishing a composite material maintenance shop in Building 831, which requires partitioning of existing interior space, relocation of communication equipment, and installation of a fume vent system, as well as installing a propeller balancing table in the engine shop bay of Building 838. Adequate ramp space is currently available for all eight C-130J aircraft, however, ramp mooring points on the airfield would be relocated.

**Project Location:**

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@33.9170459,-84.50466112559025,14z>



**Counties:** Cobb County, Georgia

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## ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

### BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/758">https://ecos.fws.gov/ecp/species/758</a>	Experimental Population, Non- Essential

### INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

### FLOWERING PLANTS

NAME	STATUS
Michaux's Sumac <i>Rhus michauxii</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/5217">https://ecos.fws.gov/ecp/species/5217</a>	Endangered
White Fringeless Orchid <i>Platanthera integrilabia</i> Population: No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1889">https://ecos.fws.gov/ecp/species/1889</a>	Threatened

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## **CRITICAL HABITATS**

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

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# MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

- 
1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

**The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location.** To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<b>Bald Eagle <i>Haliaeetus leucocephalus</i></b> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Sep 1 to Jul 31
<b>Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9399">https://ecos.fws.gov/ecp/species/9399</a>	Breeds May 15 to Oct 10

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NAME	BREEDING SEASON
<b>Cerulean Warbler <i>Dendroica cerulea</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/2974">https://ecos.fws.gov/ecp/species/2974</a>	Breeds Apr 28 to Jul 20
<b>Chimney Swift <i>Chaetura pelagica</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
<b>Kentucky Warbler <i>Oporornis formosus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
<b>Prairie Warbler <i>Dendroica discolor</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
<b>Prothonotary Warbler <i>Protonotaria citrea</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
<b>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
<b>Rusty Blackbird <i>Euphagus carolinus</i></b> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
<b>Wood Thrush <i>Hylocichla mustelina</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

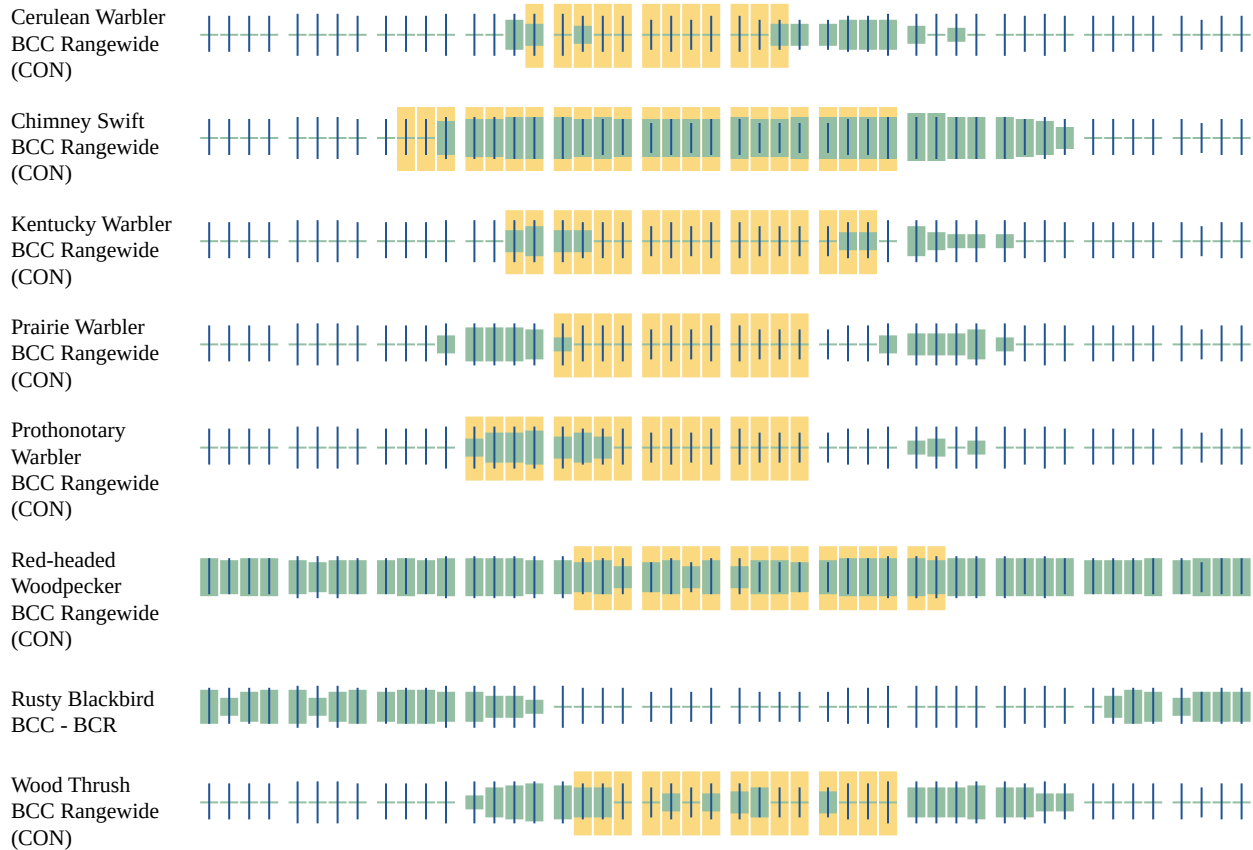
Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.







### BCC Rangewide (CON)



Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

## MIGRATORY BIRDS FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#)



may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

**What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

**How do I know if a bird is breeding, wintering or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

**What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
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2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### **What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### **Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities,

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should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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## WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

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## **IPAC USER CONTACT INFORMATION**

Agency: Air Force  
Name: Paul Sanford  
Address: 7650 W Courtney Campbell Causeway  
City: Tampa  
State: FL  
Zip: 33607  
Email: paul.sanford@aecom.com  
Phone: 8136756843

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# C-130J RECAP ALTERNATIVE 2 - DOBBINS ARB

## BIOLOGICAL ANALYSIS

Prepared using IPaC

Generated by Paul Sanford (paul.sanford@aecom.com)

May 17, 2023

The purpose of this document is to assess the effects of the proposed project and determine whether the project may affect any federally threatened, endangered, proposed, or candidate species. If appropriate for the project, this document may be used as a biological assessment (BA), as it is prepared in accordance with legal requirements set forth under [Section 7 of the Endangered Species Act \(16 U.S.C. 1536 \(c\)\)](#).

In this document, any data provided by U.S. Fish and Wildlife Service is based on data as of May 17, 2023.

Prepared using IPaC version 6.92.0-rc7



# C-130J RECAP ALTERNATIVE 2 - DOBBINS ARB BIOLOGICAL ASSESSMENT

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# 1 DESCRIPTION OF THE ACTION

## 1.1 PROJECT NAME

C-130J Recap Alternative 2 - Dobbins ARB

## 1.2 EXECUTIVE SUMMARY

See narrative provided.

## 1.3 EFFECT DETERMINATION SUMMARY

SPECIES (COMMON NAME)	SCIENTIFIC NAME	LISTING STATUS	PRESENT IN ACTION AREA	EFFECT DETERMINATION
<a href="#">Michaux's Sumac</a>	Rhus michauxii	Endangered	No	NE
<a href="#">Monarch Butterfly</a>	Danaus plexippus	Candidate	Excluded from analysis	Excluded from analysis
<a href="#">White Fringeless Orchid</a>	Platanthera integrilabia	Threatened	No	NE
<a href="#">Whooping Crane</a>	Grus americana	Experimental Population, Non- Essential	Excluded from analysis	Excluded from analysis



## 1.4 PROJECT DESCRIPTION

### 1.4.1 LOCATION



#### LOCATION

Cobb County, Georgia

### 1.4.2 DESCRIPTION OF PROJECT HABITAT

Dobbins ARB and surrounding areas are primarily urban and suburban. Approximately one-third of Dobbins ARB has impervious surfaces, while nearly half the base is landscaped or maintained grasslands. The grasslands and impervious surfaces are found primarily around the airfield, including the action area. The landscaped areas are dominated by a variety of herbaceous and woody shrubs and trees, including some invasive plants. Facility modifications necessary to accept the C-130J at Dobbins ARS would occur in areas that have already been fully developed. No new vegetation would be disturbed during the construction or operation of Alternative 2. Wildlife habitat at Dobbins ARB is limited by surrounding development and existing military operations at the installation. The construction and operation of Alternative 2 would occur in developed portions of the installation where wildlife are unlikely to be present during daylight hours.



### 1.4.3 PROJECT PROPONENT INFORMATION

*Provide information regarding who is proposing to conduct the project, and their contact information. Please provide details on whether there is a Federal nexus.*

#### REQUESTING AGENCY

Department of Defense

Air Force

#### FULL NAME

Paul Sanford

#### STREET ADDRESS

7650 W Courtney Campbell Causeway

#### CITY

Tampa

#### STATE

FL

#### ZIP

33607

#### PHONE NUMBER

8136756843

#### E-MAIL ADDRESS

paul.sanford@aecom.com

#### LEAD AGENCY

Lead agency is the same as requesting agency

### 1.4.4 PROJECT PURPOSE

The purpose of the Proposed Action is to replace existing C-130H aircraft with the congressionally approved eight state-of-the-art C-130J aircraft. The proposed recapitalization of the C-130H to the C-130J model is needed to respond to evolving mission needs and operational demands, particularly in response to weather-related events. The C-130J model performance enhances situational awareness in low-level flying conditions compared to the C-130H model.

The minimum age of C-130H aircraft currently in use is 27 years and is nearing the end of its useful life, including decreasing operational reliability, and increasing routine maintenance costs. The C-130J incorporates state-of-the-art technology, which reduces manpower requirements, lowers operating and support costs, and provides long-term life-cycle cost savings over the C-130H model. Compared to older C-130s, the C-130J model climbs faster and higher, flies farther at a higher cruise speed, and takes off and lands over a shorter distance. The C-130J has a smaller crew and requires fewer support personnel (manpower) compared to the C-130H.

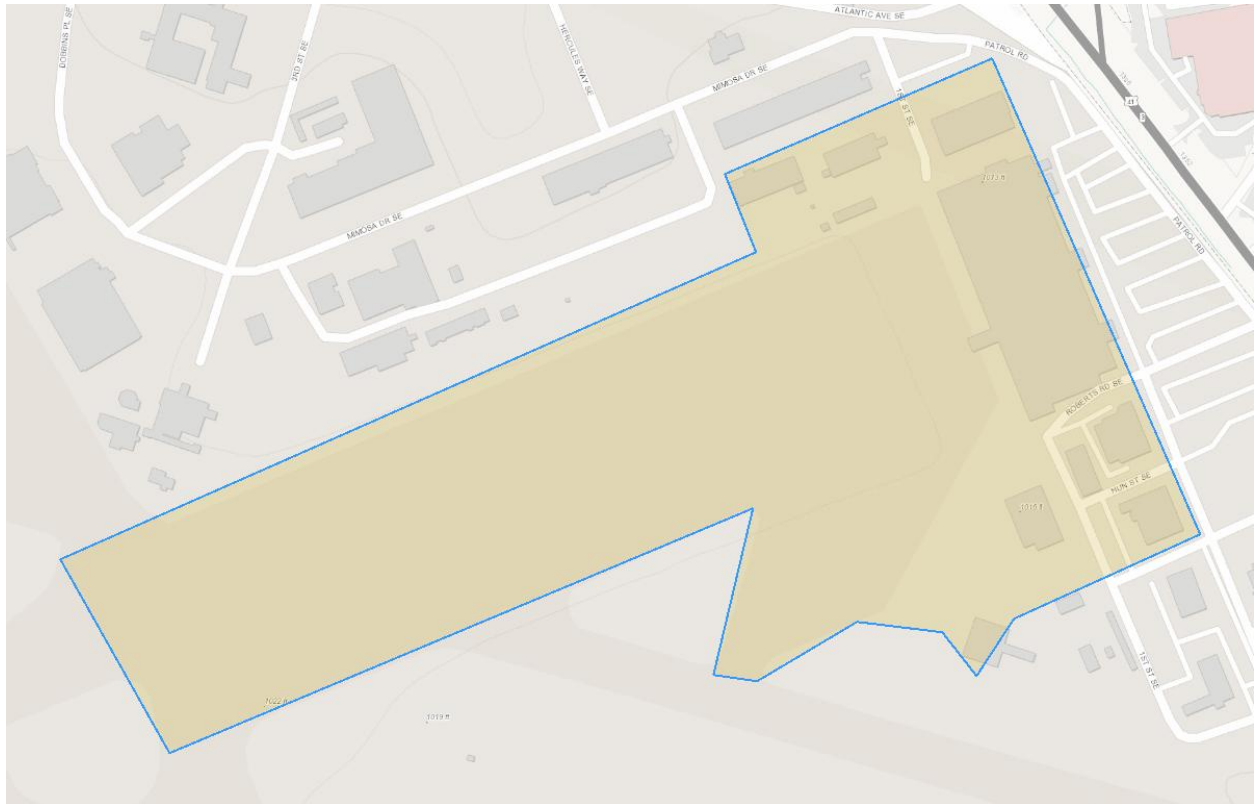
If Dobbins ARB were selected as the intended location for receipt of the C-130J, the described facility modifications would be necessary to provide adequate facility space and airfield parking/movement space for the 15-foot longer C-130J aircraft.



## 1.4.5 PROJECT TYPE AND DECONSTRUCTION

This project is a building and airfield modifications project.

### 1.4.5.1 PROJECT MAP



#### LEGEND



Project footprint



Layer 1: Building and airfield modifications



#### **1.4.5.2 BUILDING AND AIRFIELD MODIFICATIONS**

**ACTIVITY START DATE**

September 29, 2023

**ACTIVITY END DATE**

March 31, 2024

**STRESSORS**

This activity is not expected to have any impact on the environment.

**DESCRIPTION**

Facility modifications necessary to accept the C-130J at Dobbins ARB and achieve IOC would include establishing a composite material maintenance shop in Building 831, which requires partitioning of existing interior space, relocation of communication equipment, and installation of a fume vent system, as well as installing a propeller balancing table in the engine shop bay of Building 838. Adequate ramp space is currently available for all eight C-130J aircraft, however, ramp mooring points on the airfield would be relocated

#### **1.4.6 ANTICIPATED ENVIRONMENTAL STRESSORS**

*Describe the anticipated effects of your proposed project on the aspects of the land, air and water that will occur due to the activities above. These should be based on the activity deconstructions done in the previous section and will be used to inform the action area.*



## 1.5 ACTION AREA



### LEGEND



Project footprint



Stressor location



## **1.6 CONSERVATION MEASURES**

*Describe any proposed measures being implemented as part of the project that are designed to reduce the impacts to the environment and their resulting effects to listed species. To avoid extra verbiage, don't list measures that have no relevance to the species being analyzed.*

*No conservation measures have been selected for this project.*

## **1.7 PRIOR CONSULTATION HISTORY**

None

## **1.8 OTHER AGENCY PARTNERS AND INTERESTED PARTIES**

None

## **1.9 OTHER REPORTS AND HELPFUL INFORMATION**

None



## 2 SPECIES EFFECTS ANALYSIS

*This section describes, species by species, the effects of the proposed action on listed, proposed, and candidate species, and the habitat on which they depend. In this document, effects are broken down as direct interactions (something happening directly to the species) or indirect interactions (something happening to the environment on which a species depends that could then result in effects to the species).*

*These interactions encompass effects that occur both during project construction and those which could be ongoing after the project is finished. All effects, however, should be considered, including effects from direct and indirect interactions and cumulative effects.*

### 2.1 MICHAUX'S SUMAC

***This species has been excluded from analysis in this environmental review document.***

#### JUSTIFICATION FOR EXCLUSION

The action area is located completely on developed airfield pavement and facility space on-installation. According to Dobbins ARB Integrated Natural Resources Management Plan (INRMP), Michaux's sumac, federally and state endangered, has not been documented on Dobbins ARB and is extremely rare, but has the potential to occur given its current and historical range and conditions present at Dobbins ARB. Populations of Michaux's sumac have been found in nearby Fulton County. Disturbance that results in open areas is necessary for this plant species; fire suppression and competition and/or shading by woody species are thought to have led to its decline (USFWS 2014). The type of disturbance on Dobbins ARB and the prescribed fire program in forested areas create favorable conditions for Michaux's sumac. The following management strategies are recommended.

- Continue implementing a prescribed burning program and control invasive species that shade forested areas, such as climbing vines.
- Logging activities should occur after surveys for this plant have been completed, as timber operations can crush plants and compact the soil.
- Utility rights-of-way should be surveyed for this plant, as this is a preferred habitat. Prudent use of herbicides and mowing timed to avoid critical growth periods should be implemented.
- Conservation of undeveloped habitat is a key strategy.



## **2.2 MONARCH BUTTERFLY**

*This species has been excluded from analysis in this environmental review document.*

### **JUSTIFICATION FOR EXCLUSION**

Nectar plants such as *asclepias tuberosa* are documented native vegetation in undeveloped areas of Dobbins ARB according to the INRMP; however the action area is located on completely developed airfield area, unpaved areas of which are mowed/maintained. It is unlikely that the action area contains vegetation or habitat that would be desirable by this species for feeding and reproduction activities.

## **2.3 WHITE FRINGELESS ORCHID**

*This species has been excluded from analysis in this environmental review document.*

### **JUSTIFICATION FOR EXCLUSION**

The Dobbins ARB INRMP states that White fringeless orchid or monkeyface orchid (*Platanthera integrilabia*) is a perennial plant that occurs in bogs, seeps, and wetlands and is threatened in the state of Georgia and proposed threatened on a federal level. This plant is threatened by invasive species, pollution, and overgrowth of habitat (GADNR 2017). The wetlands present on Dobbins ARB could provide habitat for this species, although it is not likely to occur. The action area is located on fully developed/mowed and maintained airfield area that is free of wetlands.

## **2.4 WHOOPING CRANE**

*This species has been excluded from analysis in this environmental review document.*

### **JUSTIFICATION FOR EXCLUSION**

This organism breeds, winters, and forages in a variety of wet habitats, such as coastal and inland marshes, estuaries, ponds, wet meadows, and agricultural fields, none of which are included in the action area or the direct vicinity of the action area. The action is unlikely to jeopardize the continued existence of non-essential experimental populations.



### **3 CRITICAL HABITAT EFFECTS ANALYSIS**

*No critical habitats intersect with the project action area.*



## **4 SUMMARY DISCUSSION AND CONCLUSION**

### **4.1 SUMMARY DISCUSSION**

Vegetation: Facility modifications necessary to accept the C-130J at Dobbins ARS would occur in areas that have already been fully developed. No new vegetation would be disturbed during the construction or operation of Alternative 2, therefore, Alternative 2 would have no effect on vegetation.

Wildlife: Wildlife habitat at Dobbins ARB is limited by surrounding development and existing military operations at the installation. The construction and operation of Alternative 2 would occur in developed portions of the installation where wildlife are unlikely to be present during daylight hours . Therefore, Alternative 2 would have no effect on wildlife.

Special Status Species: Please refer to Species Presence narrative, which indicates that suitable habitat is not present in the action area for any species being considered. Facility modifications necessary to accept the C-130J at Dobbins ARS would occur in areas that have already been fully developed.

### **4.2 CONCLUSION**

In conclusion, the facility and airfield modifications planned should Dobbins ARB be selected as the installation to receive the C-130J aircraft would be minor in nature. The action area for these modifications is on already disturbed and developed land and likely does not provide suitable habitat for any species considered. No critical habitat exists in the area. A "No Effect" determination is recommended for these species.





# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Minnesota-Wisconsin Ecological Services Field Office  
3815 American Blvd East  
Bloomington, MN 55425-1659  
Phone: (952) 858-0793 Fax: (952) 646-2873



In Reply Refer To:

May 17, 2023

Project Code: 2023-0081751

Project Name: C-130J Recap Alternative 3 - Minneapolis St Paul ARS

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

This response has been generated by the Information, Planning, and Conservation (IPaC) system to provide information on natural resources that could be affected by your project. The U.S. Fish and Wildlife Service (Service) provides this response under the authority of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d), the Migratory Bird Treaty Act (16 U.S.C. 703-712), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*).

## Threatened and Endangered Species

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS IPaC system by completing the same process used to receive the enclosed list.

## Consultation Technical Assistance

Please refer to our [Section 7 website](#) for guidance and technical assistance, including [step-by-step instructions](#) for making effects determinations for each species that might be present and for specific guidance on the following types of projects: projects in developed areas, HUD, CDBG, EDA, USDA Rural Development projects, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.



We recommend running the project (if it qualifies) through our **Minnesota-Wisconsin Federal Endangered Species Determination Key (Minnesota-Wisconsin ("D-key"))**. A [demonstration video](#) showing how-to access and use the determination key is available. Please note that the Minnesota-Wisconsin D-key is the third option of 3 available d-keys. D-keys are tools to help Federal agencies and other project proponents determine if their proposed action has the potential to adversely affect federally listed species and designated critical habitat. The Minnesota-Wisconsin D-key includes a structured set of questions that assists a project proponent in determining whether a proposed project qualifies for a certain predetermined consultation outcome for all federally listed species found in Minnesota and Wisconsin (except for the northern long-eared bat- see below), which includes determinations of "no effect" or "may affect, not likely to adversely affect." In each case, the Service has compiled and analyzed the best available information on the species' biology and the impacts of certain activities to support these determinations.

If your completed d-key output letter shows a "No Effect" (NE) determination for all listed species, print your IPaC output letter for your files to document your compliance with the Endangered Species Act.

For Federal projects with a "Not Likely to Adversely Affect" (NLAA) determination, our concurrence becomes valid if you do not hear otherwise from us after a 30-day review period, as indicated in your letter.

If your d-key output letter indicates additional coordination with the Minnesota-Wisconsin Ecological Services Field Office is necessary (i.e., you get a "May Affect" determination), you will be provided additional guidance on contacting the Service to continue ESA coordination outside of the key; ESA compliance cannot be concluded using the key for "May Affect" determinations unless otherwise indicated in your output letter.

**Note: Once you obtain your official species list, you are not required to continue in IPaC with d-keys, although in most cases these tools should expedite your review.** If you choose to make an effects determination on your own, you may do so. If the project is a Federal Action, you may want to review our section 7 step-by-step instructions before making your determinations.

### **Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species**

1. If IPaC returns a result of "There are no listed species found within the vicinity of the project," then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **no effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
  2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project – other than bats (see below) – then project proponents must determine if proposed activities will have **no effect** on or **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain [Life History Information for Listed and Candidate Species](#) on our office website. If no impacts will occur to a species on the IPaC species list (e.g., there is no habitat present in the project area), the appropriate determination is **no effect**. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.
-



3. Should you determine that project activities **may affect** any federally listed, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

### **Northern Long-Eared Bats**

Northern long-eared bats occur throughout Minnesota and Wisconsin and the information below may help in determining if your project may affect these species.

This species hibernates in caves or mines only during the winter. In Minnesota and Wisconsin, the hibernation season is considered to be November 1 to March 31. During the active season (April 1 to October 31) they roost in forest and woodland habitats. Suitable summer habitat for northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags  $\geq 3$  inches dbh for northern long-eared bat that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, northern long-eared bats could be affected.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas,
- Trees found in highly developed urban areas (e.g., street trees, downtown areas),
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees, and
- A monoculture stand of shrubby vegetation with no potential roost trees.

If IPaC returns a result that northern long-eared bats are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** this species **IF** one or more of the following activities are proposed:

- Clearing or disturbing suitable roosting habitat, as defined above, at any time of year,
- Any activity in or near the entrance to a cave or mine,
- Mining, deep excavation, or underground work within 0.25 miles of a cave or mine,
- Construction of one or more wind turbines, or
- Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

*If none of the above activities are proposed*, project proponents can conclude the proposed activities will have **no effect** on the northern long-eared bat. Concurrence from the Service is not required for **No**

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**Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records.

*If any of the above activities are proposed*, and the northern long-eared bat appears on the user's species list, the federal project user will be directed to either the range-wide northern long-eared bat D-key or the Federal Highways Administration, Federal Railways Administration, and Federal Transit Administration Indiana bat/ Northern long-eared bat D-key, depending on the type of project and federal agency involvement. Similar to the Minnesota-Wisconsin D-key, these d-keys help to determine if prohibited take might occur and, if not, will generate an automated verification letter.

*Please note:* On November 30, 2022, the Service published a proposal final rule to reclassify the northern long-eared bat as endangered under the Endangered Species Act. On January 26, 2023, the Service published a 60-day extension for the final reclassification rule in the Federal Register, moving the effective listing date from January 30, 2023, to March 31, 2023. This extension will provide stakeholders and the public time to preview interim guidance and consultation tools before the rule becomes effective. When available, the tools will be available on the Service's northern long-eared bat website (<https://www.fws.gov/species/northern-long-eared-bat-myotis-septentrionalis>). Once the final rule goes into effect on March 31, 2023, the 4(d) D-key will no longer be available (4(d) rules are not available for federally endangered species) and will be replaced with a new Range-wide NLEB D-key (range-wide d-key). For projects not completed by March 31, 2023, that were previously reviewed under the 4(d) d-key, there may be a need for reinitiation of consultation. For these ongoing projects previously reviewed under the 4(d) d-key that may result in incidental take of the northern long-eared bat, we recommend you review your project using the new range-wide d-key once available. If your project does not comply with the range-wide d-key, it may be eligible for use of the Interim (formal) Consultation framework (framework). The framework is intended to facilitate the transition from the 4(d) rule to typical Section 7 consultation procedures for federally endangered species and will be available only until spring 2024. Again, when available, these tools (new range-wide d-key and framework) will be available on the Service's [northern long-eared bat website](#).

### **Whooping Crane**

Whooping crane is designated as a non-essential experimental population in Wisconsin and consultation under Section 7(a)(2) of the Endangered Species Act is only required if project activities will occur within a National Wildlife Refuge or National Park. If project activities are proposed on lands outside of a National Wildlife Refuge or National Park, then you are not required to consult. For additional information on this designation and consultation requirements, please review "[Establishment of a Nonessential Experimental Population of Whooping Cranes in the Eastern United States](#)."

### **Other Trust Resources and Activities**

*Bald and Golden Eagles* - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. Should bald or golden eagles occur within or near the project area please contact our office for further coordination. For communication and wind energy projects, please refer to additional guidelines below.

*Migratory Birds* - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the

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mortality of migratory birds whenever possible and we encourage implementation of [recommendations that minimize potential impacts to migratory birds](#). Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

*Communication Towers* - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed [voluntary guidelines for minimizing impacts](#).

*Transmission Lines* - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to [guidelines](#) developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

*Wind Energy* - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's [Wind Energy Guidelines](#). In addition, please refer to the Service's [Eagle Conservation Plan Guidance](#), which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

#### **State Department of Natural Resources Coordination**

While it is not required for your Federal section 7 consultation, please note that additional state endangered or threatened species may also have the potential to be impacted. Please contact the Minnesota or Wisconsin Department of Natural Resources for information on state listed species that may be present in your proposed project area.

##### *Minnesota*

[Minnesota Department of Natural Resources - Endangered Resources Review Homepage](#)

Email: [Review.NHIS@state.mn.us](mailto:Review.NHIS@state.mn.us)

##### *Wisconsin*

[Wisconsin Department of Natural Resources - Endangered Resources Review Homepage](#)

Email: [DNRERReview@wi.gov](mailto:DNRERReview@wi.gov)

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

#### **Attachment(s):**

- Official Species List
  - USFWS National Wildlife Refuges and Fish Hatcheries
  - Migratory Birds
  - Wetlands
-



## OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Minnesota-Wisconsin Ecological Services Field Office**

3815 American Blvd East

Bloomington, MN 55425-1659

(952) 858-0793

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## PROJECT SUMMARY

**Project Code:** 2023-0081751  
**Project Name:** C-130J Recap Alternative 3 - Minneapolis St Paul ARS  
**Project Type:** Airport - Maintenance/Modification  
**Project Description:** Near term facility modifications (i.e., building renovation/modification, aircraft apron reconfiguration) to potentially recapitalize C-130H aircraft with C-130J aircraft. Facility modifications necessary to accept the C-130J at Minneapolis-St. Paul ARS and achieve IOC would include a 20-foot by 14-foot by 14-foot nose pocket extension on Building 870 to enable the aircraft tow truck to remain on level surface and out of the weather during aircraft towing procedures (see Figure 2.3-3). The airfield ramp would require re-striping to adjust taxiway positions in order to maintain aircraft safety separations for the longer C-130J and new mooring points would be installed for each new parking spot. Additionally, a composite material maintenance shop would be established in Building 710, and the sheet metal shop would be relocated from Building 821 to the space adjacent to the composite material maintenance shop in Building 710. Finally, a new propeller balancing table would be installed in the engine shop of Building 822.

**Project Location:**

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@44.8938974,-93.21454822268913,14z>



**Counties:** Hennepin County, Minnesota



## ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## MAMMALS

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Endangered
Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10515">https://ecos.fws.gov/ecp/species/10515</a>	Proposed Endangered

## BIRDS

NAME	STATUS
Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/758">https://ecos.fws.gov/ecp/species/758</a>	Experimental Population, Non- Essential

## CLAMS

NAME	STATUS
Higgins Eye (pearlymussel) <i>Lampsilis higginsii</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/5428">https://ecos.fws.gov/ecp/species/5428</a>	Endangered

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## INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate
Rusty Patched Bumble Bee <i>Bombus affinis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9383">https://ecos.fws.gov/ecp/species/9383</a> General project design guidelines: <a href="https://ipac.ecosphere.fws.gov/project/QKVAHYEPMBFUBEIS3KDCCVEHK4/documents/generated/5967.pdf">https://ipac.ecosphere.fws.gov/project/QKVAHYEPMBFUBEIS3KDCCVEHK4/documents/generated/5967.pdf</a>	Endangered

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.



## **USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES**

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

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# MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

- 
1. The [Migratory Birds Treaty Act](#) of 1918.
  2. The [Bald and Golden Eagle Protection Act](#) of 1940.
  3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

**The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern \(BCC\)](#) list or warrant special attention in your project location.** To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<b>Bald Eagle <i>Haliaeetus leucocephalus</i></b> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Dec 1 to Aug 31
<b>Black Tern <i>Chlidonias niger</i></b> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3093">https://ecos.fws.gov/ecp/species/3093</a>	Breeds May 15 to Aug 20

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NAME	BREEDING SEASON
<b>Black-billed Cuckoo</b> <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9399">https://ecos.fws.gov/ecp/species/9399</a>	Breeds May 15 to Oct 10
<b>Bobolink</b> <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
<b>Canada Warbler</b> <i>Cardellina canadensis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
<b>Cerulean Warbler</b> <i>Dendroica cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/2974">https://ecos.fws.gov/ecp/species/2974</a>	Breeds Apr 22 to Jul 20
<b>Chimney Swift</b> <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 25
<b>Eastern Whip-poor-will</b> <i>Antrostomus vociferus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Aug 20
<b>Golden-winged Warbler</b> <i>Vermivora chrysoptera</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8745">https://ecos.fws.gov/ecp/species/8745</a>	Breeds May 1 to Jul 20
<b>Henslow's Sparrow</b> <i>Ammodramus henslowii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3941">https://ecos.fws.gov/ecp/species/3941</a>	Breeds May 1 to Aug 31
<b>Lesser Yellowlegs</b> <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9679">https://ecos.fws.gov/ecp/species/9679</a>	Breeds elsewhere
<b>Long-eared Owl</b> <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3631">https://ecos.fws.gov/ecp/species/3631</a>	Breeds Mar 1 to Jul 15
<b>Red-headed Woodpecker</b> <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10



NAME	BREEDING SEASON
<b>Rusty Blackbird</b> <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
<b>Short-billed Dowitcher</b> <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9480">https://ecos.fws.gov/ecp/species/9480</a>	Breeds elsewhere
<b>Western Grebe</b> <i>aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/6743">https://ecos.fws.gov/ecp/species/6743</a>	Breeds Jun 1 to Aug 31
<b>Wood Thrush</b> <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

## PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .



3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

### Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

**No Data (—)**

A week is marked as having no data if there were no survey events for that week.

## Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





### BCC Rangewide (CON)



Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

## MIGRATORY BIRDS FAQ

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**



[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

### **What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

### **What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### **How do I know if a bird is breeding, wintering or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **What are the levels of concern for migratory birds?**

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Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### **What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### **Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of

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certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

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## WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

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## **IPAC USER CONTACT INFORMATION**

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Name: Paul Sanford  
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City: Tampa  
State: FL  
Zip: 33607  
Email: paul.sanford@aecom.com  
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## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Minnesota-Wisconsin Ecological Services Field Office  
3815 American Blvd East  
Bloomington, MN 55425-1659  
Phone: (952) 858-0793 Fax: (952) 646-2873



In Reply Refer To:

May 17, 2023

Project code: 2023-0081751

Project Name: C-130J Recap Alternative 3 - Minneapolis St Paul ARS

Federal Nexus: yes

Federal Action Agency (if applicable): Air Force

**Subject:** Technical assistance for 'C-130J Recap Alternative 3 - Minneapolis St Paul ARS'

Dear Paul Sanford:

This letter records your determination using the Information for Planning and Consultation (IPaC) system provided to the U.S. Fish and Wildlife Service (Service) on May 17, 2023, for 'C-130J Recap Alternative 3 - Minneapolis St Paul ARS' (here forward, Project). This project has been assigned Project Code 2023-0081751 and all future correspondence should clearly reference this number. **Please carefully review this letter. Your Endangered Species Act (Act) requirements are not complete.**

### **Ensuring Accurate Determinations When Using IPaC**

The Service developed the IPaC system and associated species' determination keys in accordance with the Endangered Species Act of 1973 (ESA; 87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) and based on a standing analysis. All information submitted by the Project proponent into the IPaC must accurately represent the full scope and details of the Project. Failure to accurately represent or implement the Project as detailed in IPaC or the Northern Long-eared Bat Rangewide Determination Key (Dkey), invalidates this letter.

### **Determination for the Northern Long-Eared Bat**

Based upon your IPaC submission and a standing analysis, your project is not reasonably certain to cause incidental take of the northern long-eared bat. Unless the Service advises you within 15 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.



## Other Species and Critical Habitat that May be Present in the Action Area

The IPaC-assisted determination for the northern long-eared bat does not apply to the following ESA-protected species and/or critical habitat that also may occur in your Action area:

- Higgins Eye (pearlymussel) *Lampsilis higginsii* Endangered
- Monarch Butterfly *Danaus plexippus* Candidate
- Rusty Patched Bumble Bee *Bombus affinis* Endangered
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above. Note that if a new species is listed that may be affected by the identified action before it is complete, additional review is recommended to ensure compliance with the Endangered Species Act.

## Next Step

Consultation with the Service is necessary. The project has a federal nexus (e.g., Federal funds, permit, etc.), but you are not the federal action agency or its designated (in writing) non-federal representative. Therefore, the ESA consultation status is incomplete and no project activities should occur until consultation between the Service and the Federal action agency (or designated non-federal representative), is completed.

As the federal agency or designated non-federal representative deems appropriate, they should submit their determination of effects to the Service by doing the following.

1. Log into IPaC using an agency email account and click on My Projects, click "Search by record locator" to find this Project using **189-126408807**. (Alternatively, the originator of the project in IPaC can add the agency representative to the project by using the Add Member button on the project home page.)
2. Review the answers to the Northern Long-eared Bat Range-wide Determination Key to ensure that they are accurate.
3. Click on Review/Finalize to convert the 'not likely to adversely affect' consistency letter to a concurrence letter. Download the concurrence letter for your files if needed.

If no changes occur with the Project or there are no updates on listed species, no further consultation/coordination for this project is required for the northern long-eared bat. However, the Service recommends that project proponents re-evaluate the Project in IPaC if: 1) the scope, timing, duration, or location of the Project changes (includes any project changes or amendments); 2) new information reveals the Project may impact (positively or negatively) federally listed species or designated critical habitat; or 3) a new species is listed, or critical habitat designated. If any of the above conditions occurs, additional coordination with the Service should take place before project implements any changes which are final or commits additional resources.

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If you have any questions regarding this letter or need further assistance, please contact the Minnesota-Wisconsin Ecological Services Field Office and reference Project Code 2023-0081751 associated with this Project.

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**Action Description**

You provided to IPaC the following name and description for the subject Action.

**1. Name**

C-130J Recap Alternative 3 - Minneapolis St Paul ARS

**2. Description**

The following description was provided for the project 'C-130J Recap Alternative 3 - Minneapolis St Paul ARS':

Near term facility modifications (i.e., building renovation/modification, aircraft apron reconfiguration) to potentially recapitalize C-130H aircraft with C-130J aircraft. Facility modifications necessary to accept the C-130J at Minneapolis-St. Paul ARS and achieve IOC would include a 20-foot by 14-foot by 14-foot nose pocket extension on Building 870 to enable the aircraft tow truck to remain on level surface and out of the weather during aircraft towing procedures (see Figure 2.3-3). The airfield ramp would require re-striping to adjust taxiway positions in order to maintain aircraft safety separations for the longer C-130J and new mooring points would be installed for each new parking spot. Additionally, a composite material maintenance shop would be established in Building 710, and the sheet metal shop would be relocated from Building 821 to the space adjacent to the composite material maintenance shop in Building 710. Finally, a new propeller balancing table would be installed in the engine shop of Building 822.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@44.8938974,-93.21454822268913,14z>





## DETERMINATION KEY RESULT

Based on the answers provided, the proposed Action is consistent with a determination of “may affect, but not likely to adversely affect” for the Endangered northern long-eared bat (*Myotis septentrionalis*).

## QUALIFICATION INTERVIEW

1. Does the proposed project include, or is it reasonably certain to cause, intentional take of the northern long-eared bat or any other listed species?

**Note:** Intentional take is defined as take that is the intended result of a project. Intentional take could refer to research, direct species management, surveys, and/or studies that include intentional handling/encountering, harassment, collection, or capturing of any individual of a federally listed threatened, endangered or proposed species?

No

2. Do you have post-white nose syndrome occurrence data that indicates that northern long-eared bats (NLEB) are likely to be present in the action area?

Bat occurrence data may include identification of NLEBs in hibernacula, capture of NLEBs, tracking of NLEBs to roost trees, or confirmed acoustic detections. With this question, we are looking for data that, for some reason, may have not yet been made available to U.S. Fish and Wildlife Service.

No

3. Does any component of the action involve construction or operation of wind turbines?

**Note:** For federal actions, answer ‘yes’ if the construction or operation of wind power facilities is either (1) part of the federal action or (2) would not occur but for a federal agency action (federal permit, funding, etc.).

No

4. Is the proposed action authorized, permitted, licensed, funded, or being carried out by a Federal agency in whole or in part?

Yes

5. Is the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), or Federal Transit Administration (FTA) funding or authorizing the proposed action, in whole or in part?

No

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6. Are you an employee of the federal action agency or have you been officially designated in writing by the agency as its designated non-federal representative for the purposes of Endangered Species Act Section 7 informal consultation per 50 CFR § 402.08?

**Note:** This key may be used for federal actions and for non-federal actions to facilitate section 7 consultation and to help determine whether an incidental take permit may be needed, respectively. This question is for information purposes only.

No

7. Is the lead federal action agency the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC)? Is the Environmental Protection Agency (EPA) or Federal Communications Commission (FCC) funding or authorizing the proposed action, in whole or in part?

No

8. Is the lead federal action agency the Federal Energy Regulatory Commission (FERC)?

No

9. Have you determined that your proposed action will have no effect on the northern long-eared bat? Remember to consider the [effects of any activities](#) that would not occur but for the proposed action.

If you think that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, answer “No” below and continue through the key. If you have determined that the northern long-eared bat does not occur in your project’s action area and/or that your project will have no effects whatsoever on the species despite the potential for it to occur in the action area, you may make a “no effect” determination for the northern long-eared bat.

**Note:** Federal agencies (or their designated non-federal representatives) must consult with USFWS on federal agency actions that may affect listed species [50 CFR 402.14(a)]. Consultation is not required for actions that will not affect listed species or critical habitat. Therefore, this determination key will not provide a consistency or verification letter for actions that will not affect listed species. If you believe that the northern long-eared bat may be affected by your project or if you would like assistance in deciding, please answer “No” and continue through the key. Remember that this key addresses only effects to the northern long-eared bat. Consultation with USFWS would be required if your action may affect another listed species or critical habitat. The definition of [Effects of the Action](#) can be found here: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

No

10. Does the action area contain any caves (or associated sinkholes, fissures, or other karst features), mines, rocky outcroppings, or tunnels that could provide habitat for hibernating northern long-eared bats?

No

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11. Does the action area contain or occur within 0.5 miles of (1) talus or (2) anthropogenic or naturally formed rock crevices in rocky outcrops, rock faces or cliffs?

No

12. Is suitable summer habitat for the northern long-eared bat present within 1000 feet of project activities?

(If unsure, answer "Yes.")

**Note:** If there are trees within the action area that are of a sufficient size to be potential roosts for bats (i.e., live trees and/or snags  $\geq 3$  inches (12.7 centimeter) dbh), answer "Yes". If unsure, additional information defining suitable summer habitat for the northern long-eared bat can be found at: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

Yes

13. Will the action cause effects to a bridge?

No

14. Will the action result in effects to a culvert or tunnel?

No

15. Does the action include the intentional exclusion of northern long-eared bats from a building or structure?

**Note:** Exclusion is conducted to deny bats' entry or reentry into a building. To be effective and to avoid harming bats, it should be done according to established standards. If your action includes bat exclusion and you are unsure whether northern long-eared bats are present, answer "Yes." Answer "No" if there are no signs of bat use in the building/structure. If unsure, contact your local U.S. Fish and Wildlife Services Ecological Services Field Office to help assess whether northern long-eared bats may be present. Contact a Nuisance Wildlife Control Operator (NWCO) for help in how to exclude bats from a structure safely without causing harm to the bats (to find a NWCO certified in bat standards, search the Internet using the search term "National Wildlife Control Operators Association bats"). Also see the White-Nose Syndrome Response Team's guide for bat control in structures

No

16. Does the action involve removal, modification, or maintenance of a human-made structure (barn, house, or other building) **known or suspected to contain roosting bats**?

No

17. Will the action cause construction of one or more new roads open to the public?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

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18. Will the action include or cause any construction or other activity that is reasonably certain to increase average daily traffic on one or more existing roads?

**Note:** For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.). .

No

19. Will the action include or cause any construction or other activity that is reasonably certain to increase the number of travel lanes on an existing thoroughfare?

For federal actions, answer 'yes' when the construction or operation of these facilities is either (1) part of the federal action or (2) would not occur but for an action taken by a federal agency (federal permit, funding, etc.).

No

20. Will the proposed action involve the creation of a new water-borne contaminant source (e.g., leachate pond pits containing chemicals that are not NSF/ANSI 60 compliant)?

No

21. Will the proposed action involve the creation of a new point source discharge from a facility other than a water treatment plant or storm water system?

No

22. Will the action include drilling or blasting?

No

23. Will the action involve military training (e.g., smoke operations, obscurant operations, exploding munitions, artillery fire, range use, helicopter or fixed wing aircraft use)?

Yes

24. Will the military training affect suitable northern long-eared bat summer habitat?

**Note:** Additional information defining suitable summer habitat for the northern long-eared bat can be found at: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

No

25. Will the proposed action involve the use of herbicides or pesticides other than herbicides (e.g., fungicides, insecticides, or rodenticides)?

No

26. Will the action include or cause activities that are reasonably certain to cause chronic nighttime noise in suitable summer habitat for the northern long-eared bat? Chronic noise is noise that is continuous or occurs repeatedly again and again for a long time.

**Note:** Additional information defining suitable summer habitat for the northern long-eared bat can be found at: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

No

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27. Does the action include, or is it reasonably certain to cause, the use of artificial lighting within 1000 feet of suitable northern long-eared bat roosting habitat?

**Note:** Additional information defining suitable roosting habitat for the northern long-eared bat can be found at: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

No

28. Will the action include tree cutting or other means of knocking down or bringing down trees, tree topping, or tree trimming?

No

29. Will the action result in the use of prescribed fire?

No

30. Will the action cause noises that are louder than ambient baseline noises within the action area?

Yes

31. Will the action cause noises during the active season in suitable summer habitat that are louder than anthropogenic noises to which the affected habitat is currently exposed?

Answer 'no' if the noises will occur only during the inactive period.

**Note:** Inactive Season dates for areas within a spring staging/fall swarming area can be found here: <https://www.fws.gov/media/inactive-season-dates-swarming-and-staging-areas>.

**Note:** Additional information defining suitable summer habitat for the northern long-eared bat can be found at: <https://www.fws.gov/media/northern-long-eared-bat-assisted-determination-key-selected-definitions>

No

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## PROJECT QUESTIONNAIRE

Enter the extent of the action area (in acres) from which trees will be removed - round up to the nearest tenth of an acre. For this question, include the entire area where tree removal will take place, even if some live or dead trees will be left standing.

0.0

Will all potential northern long-eared bat (NLEB) roost trees (trees  $\geq 3$  inches diameter at breast height, dbh) be cut, knocked, or brought down from any portion of the action area greater than or equal to 0.1 acre? If all NLEB roost trees will be removed from multiple areas, select 'Yes' if the cumulative extent of those areas meets or exceeds 0.1 acre.

No

Enter the extent of the action area (in acres) from which all potential NLEB roost trees will be removed. If all NLEB roost trees will be removed from multiple areas, entire the total extent of those areas. Round up to the nearest tenth of an acre.

0.0

For the area from which all potential northern long-eared bat (NLEB) roost trees will be removed, on how many acres (round to the nearest tenth of an acre) will trees be allowed to regrow? Enter '0' if the entire area from which all potential NLEB roost trees are removed will be developed or otherwise converted to non-forest for the foreseeable future.

0.0

Will any snags (standing dead trees)  $\geq 3$  inches dbh be left standing in the area(s) in which all northern long-eared bat roost trees will be cut, knocked down, or otherwise brought down?

No

Will all project activities be completed by April 1, 2024?

Yes

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**IPAC USER CONTACT INFORMATION**

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City: Tampa  
State: FL  
Zip: 33607  
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# United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Minnesota-Wisconsin Ecological Services Field Office  
3815 American Blvd East  
Bloomington, MN 55425-1659  
Phone: (952) 858-0793 Fax: (952) 646-2873



In Reply Refer To:

May 17, 2023

Project code: 2023-0081751

Project Name: C-130J Recap Alternative 3 - Minneapolis St Paul ARS

Subject: Consistency letter for 'C-130J Recap Alternative 3 - Minneapolis St Paul ARS' for specified threatened and endangered species that may occur in your proposed project location consistent with the Minnesota-Wisconsin Endangered Species Determination Key (Minnesota-Wisconsin DKey).

Dear Paul Sanford:

The U.S. Fish and Wildlife Service (Service) received on **May 17, 2023** your effect determination(s) for the 'C-130J Recap Alternative 3 - Minneapolis St Paul ARS' (Action) using the Minnesota-Wisconsin DKey within the Information for Planning and Consultation (IPaC) system. You have submitted this key to satisfy requirements under Section 7(a)(2). The Service developed this system in accordance of with the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 et seq.).

Based on your answers and the assistance of the Service's Minnesota-Wisconsin DKey, you made the following effect determination(s) for the proposed Action:

Species	Listing Status	Determination
Higgins Eye (pearlymussel) ( <i>Lampsilis higginsii</i> )	Endangered	No effect
Monarch Butterfly ( <i>Danaus plexippus</i> )	Candidate	No effect
Rusty Patched Bumble Bee ( <i>Bombus affinis</i> )	Endangered	No effect
Tricolored Bat ( <i>Perimyotis subflavus</i> )	Proposed	No effect
	Endangered	
Whooping Crane ( <i>Grus americana</i> )	Experimental	No effect
	Population, Non-Essential	

## **Determination Information**

Thank you for informing the Service of your "No Effect" determination(s). Your agency has met consultation requirements and no further consultation is required for the species you determined will not be affected by the Action.

## **Additional Information**



**Sufficient project details:** Please provide sufficient project details on your project homepage in IPaC (Define Project, Project Description) to support your conclusions. Failure to disclose important aspects of your project that would influence the outcome of your effects determinations may negate your determinations and invalidate this letter. If you have site-specific information that leads you to believe a different determination is more appropriate for your project than what the Dkey concludes, you can and should proceed based on the best available information.

**Future project changes:** The Service recommends that you contact the Minnesota-Wisconsin Ecological Services Field Office or re-evaluate the project in IPaC if: 1) the scope or location of the proposed Action is changed; 2) new information reveals that the action may affect listed species or designated critical habitat in a manner or to an extent not previously considered; 3) the Action is modified in a manner that causes effects to listed species or designated critical habitat; or 4) a new species is listed or critical habitat designated. If any of the above conditions occurs, additional consultation with the Service should take place before project changes are final or resources committed.

### **Species-specific information**

**Freshwater Mussels:** Freshwater mussels are one of the most critically imperiled groups of organisms in the world. In North America, 65% of the remaining 300 species are vulnerable to extinction (Haag and Williams 2014). Implementing measures to conserve and restore freshwater mussel populations directly improves water quality in lakes, rivers, and streams throughout Minnesota and Wisconsin. An adult freshwater mussel filters anywhere from 1 to 38 gallons of water per day (Baker and Levinton 2003, Barnhart pers. comm. 2019). A 2015 survey found that in some areas, mussels can reduce the bacterial populations by more than 85% (Othman et al. 2015 in Vaughn 2017). Mussels are also considered to be ecosystem engineers by stabilizing substrate and providing habitat for other aquatic organisms (Vaughn 2017). In addition to ecosystem services, mussels play an important role in the food web, contributing critical nutrients to both terrestrial and aquatic habitats, including those that support sport fish (Vaughn 2017). Taking proactive measures to conserve and restore freshwater mussels will improve water quality, which has the potential to positively impact human health and recreation in the States of Minnesota and Wisconsin.

You have indicated that your Action will have no effect (NE) on Federally listed mussel species. However, state-listed mussels may occur in your Action area. Contact the Minnesota or Wisconsin Department of Natural Resources to determine effects to state-listed mussels.

**Bald and Golden Eagles:** Bald eagles, golden eagles, and their nests are protected under the Bald and Golden Eagle Protection Act (54 Stat. 250, as amended, 16 U.S.C. 668a-d) (Eagle Act). The Eagle Act prohibits, except when authorized by an Eagle Act permit, the “taking” of bald and golden eagles and defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” The Eagle Act’s implementing regulations define disturb as “... to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

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If you observe a bald eagle nest in the vicinity of your proposed project, you should follow the National Bald Eagle Management Guidelines (May 2007). For more information on eagles and conducting activities in the vicinity of an eagle nest, please visit our regional eagle website or contact Margaret at Margaret\_Rheude@fws.gov. **If the Action may affect bald or golden eagles, additional coordination with the Service under the Eagle Act may be required.**

The following species and/or critical habitats may also occur in your project area and **are not** covered by this conclusion:

- Northern Long-eared Bat *Myotis septentrionalis* Endangered

**Coordination with the Service is not complete if additional coordination is advised above for any species.**

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**Action Description**

You provided to IPaC the following name and description for the subject Action.

**1. Name**

C-130J Recap Alternative 3 - Minneapolis St Paul ARS

**2. Description**

The following description was provided for the project 'C-130J Recap Alternative 3 - Minneapolis St Paul ARS':

Near term facility modifications (i.e., building renovation/modification, aircraft apron reconfiguration) to potentially recapitalize C-130H aircraft with C-130J aircraft. Facility modifications necessary to accept the C-130J at Minneapolis-St. Paul ARS and achieve IOC would include a 20-foot by 14-foot by 14-foot nose pocket extension on Building 870 to enable the aircraft tow truck to remain on level surface and out of the weather during aircraft towing procedures (see Figure 2.3-3). The airfield ramp would require re-striping to adjust taxiway positions in order to maintain aircraft safety separations for the longer C-130J and new mooring points would be installed for each new parking spot. Additionally, a composite material maintenance shop would be established in Building 710, and the sheet metal shop would be relocated from Building 821 to the space adjacent to the composite material maintenance shop in Building 710. Finally, a new propeller balancing table would be installed in the engine shop of Building 822.

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@44.8938974,-93.21454822268913,14z>





## QUALIFICATION INTERVIEW

1. This determination key is intended to assist the user in evaluating the effects of their actions on Federally listed species in Minnesota and Wisconsin. It does not cover other prohibited activities under the Endangered Species Act (e.g., for wildlife: import/export, Interstate or foreign commerce, possession of illegally taken wildlife, etc.; for plants: import/export, reduce to possession, malicious destruction on Federal lands, commercial sale, etc.) or other statutes. Additionally, this key DOES NOT cover wind development, purposeful take (e.g., for research or surveys), communication towers that have guy wires or are over 450 feet in height, aerial or other large-scale application of any chemical (such as insecticide or herbicide), and approval of long-term permits or plans (e.g., FERC licenses, HCP's).

Click **YES** to acknowledge that you must consider other prohibitions of the ESA or other statutes outside of this determination key.

*Yes*

2. Is the action being funded, authorized, or carried out by a Federal agency?

*Yes*

3. Are you the Federal agency or designated non-federal representative?

*Yes*

4. Does the action involve the installation or operation of wind turbines?

*No*

5. Does the action involve purposeful take of a listed animal?

*No*

6. Does the action involve a new communications tower?

*No*

7. Does the activity involve aerial or other large-scale application of ANY chemical, including pesticides (insecticide, herbicide, fungicide, rodenticide, etc)?

*No*

8. Does the action occur near a bald eagle nest?

**Note:** Contact the Minnesota or Wisconsin Department of Natural Resources for an up-to-date list of known bald eagle nests.

*No*

9. Will your action permanently affect local hydrology?

*No*

10. Will your action temporarily affect local hydrology?

*No*

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11. Will your project have any direct impacts to a stream or river (e.g., Horizontal Directional Drilling (HDD), hydrostatic testing, stream/road crossings, new stormwater outfall discharge, dams, other in-stream work, etc.)?

No

12. Does your project have the potential to impact the riparian zone or indirectly impact a stream/river (e.g., cut and fill; horizontal directional drilling; construction; vegetation removal; pesticide or fertilizer application; discharge; runoff of sediment or pollutants; increase in erosion, etc.)?

**Note:** Consider all potential effects of the action, including those that may happen later in time and outside and downstream of the immediate area involved in the action.

Endangered Species Act regulation defines "effects of the action" to include all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action. (50 CFR 402.02).

No

13. Will your action disturb the ground or existing vegetation?

**Note:** This includes any off-road vehicle access, soil compaction (enough to collapse a rodent burrow), digging, seismic survey, directional drilling, heavy equipment, grading, trenching, placement of fill, pesticide application (herbicide, fungicide), vegetation management (including removal or maintenance using equipment or prescribed fire), cultivation, development, etc.

Yes

14. Will your action include spraying insecticides?

No

15. Does your action area occur entirely within an already developed area?

**Note:** Already developed areas are already paved, covered by existing structures, manicured lawns, industrial sites, or cultivated cropland, AND do not contain trees that could be roosting habitat. Be aware that listed species may occur in areas with natural, or semi-natural, vegetation immediately adjacent to existing utilities (e.g. roadways, railways) or within utility rights-of-way such as overhead transmission line corridors, and can utilize suitable trees, bridges, or culverts for roosting even in urban dominated landscapes (so these are not considered "already developed areas" for the purposes of this question). If unsure, select NO..

Yes

16. Does the action have potential indirect effects to listed species or the habitats they depend on (e.g., water discharge into adjacent habitat or waterbody, changes in groundwater elevation, introduction of an exotic plant species)?

Yes

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17. Does the action include – or is it reasonably certain to result in – construction of one or more new roads or rail lines; the addition of travel lanes that are likely to increase vehicle traffic on one or more existing roads; or other structures or activities that will increase vehicle traffic?

No

18. Does the action include – or is it reasonably certain to cause – the use of commercial/ managed bees (e.g., the use of honeybees or managed bumble bees to pollinate crops).

No

19. Is there habitat for nesting, foraging, and/or overwintering for the rusty patched bumble bee in the action area?

**Note:** Please refer to the ESA Section 7(a)(2) Voluntary Implementation Guidance for Rusty Patched Bumble Bee at: <https://www.fws.gov/media/esa-section-7a2-voluntary-implementation-guidance-rusty-patched-bumble-bee>.

No

20. Have you determined that the action will have no effect on individuals within the whooping crane nonessential experimental population (NEP)?

Yes

21. [Hidden Semantic] Does the action area intersect the monarch butterfly species list area?

**Automatically answered**

Yes

22. Under the ESA, monarchs remain warranted but precluded by listing actions of higher priority. The monarch is a candidate for listing at this time. The Endangered Species Act does not establish protections or consultation requirements for candidate species. Some Federal and State agencies may have policy requirements to consider candidate species in planning. We encourage implementing measures that will remove or reduce threats to these species and possibly make listing unnecessary.

If your project will have no effect on monarch butterflies (for example, if your project won't affect their habitat or individuals), then you can make a "no effect" determination for this project.

Are you making a "no effect" determination for monarch?

Yes

23. [Hidden semantic] Does the action intersect the Tricolored bat species list area?

**Automatically answered**

Yes

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24. The tricolored bat was proposed for listing as endangered on September 13, 2022. During winter, tricolored bats hibernate in caves, abandoned mines, and abandoned tunnels ranging from small to large in size. During spring, summer and fall months, they roost primarily among leaf clusters of live or recently dead deciduous/hardwood trees.

What effect determination do you want to make for the tricolored bat (Only make a "may affect" determination if you think the project is likely to jeopardize the continued existence of the species)?

1. *"No effect"*
-



**IPAC USER CONTACT INFORMATION**

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State: FL  
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## United States Department of the Interior

FISH AND WILDLIFE SERVICE  
Colorado Ecological Services Field Office  
Denver Federal Center  
P.O. Box 25486  
Denver, CO 80225-0486  
Phone: (303) 236-4773 Fax: (303) 236-4005



In Reply Refer To:

May 17, 2023

Project Code: 2023-0082723

Project Name: C-130J Recap Alternative 4 - Peterson SFB

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)).



(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

---



Attachment(s):

- Official Species List



## OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Colorado Ecological Services Field Office**

Denver Federal Center  
P.O. Box 25486  
Denver, CO 80225-0486  
(303) 236-4773

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## ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 3 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## MAMMALS

NAME	STATUS
<p>Gray Wolf <i>Canis lupus</i></p> <p>Population: U.S.A.: All of AL, AR, CA, CO, CT, DE, FL, GA, IA, IN, IL, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, ND, NE, NH, NJ, NV, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, and WV; and portions of AZ, NM, OR, UT, and WA. Mexico.</p> <p>There is <b>final</b> critical habitat for this species.</p> <p>This species only needs to be considered under the following conditions:</p> <ul style="list-style-type: none"> <li>▪ Lone, dispersing gray wolves may be present throughout the state of Colorado. If your activity includes a predator management program, please consider this species in your environmental review.</li> </ul> <p>Species profile: <a href="https://ecos.fws.gov/ecp/species/4488">https://ecos.fws.gov/ecp/species/4488</a></p>	Endangered

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## BIRDS

NAME	STATUS
Eastern Black Rail <i>Laterallus jamaicensis ssp. jamaicensis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/10477">https://ecos.fws.gov/ecp/species/10477</a>	Threatened
Piping Plover <i>Charadrius melodus</i> Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> <li>Project includes water-related activities and/or use in the N. Platte, S. Platte, and Laramie River Basins which may affect listed species in Nebraska.</li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/6039">https://ecos.fws.gov/ecp/species/6039</a>	Threatened

## FISHES

NAME	STATUS
Greenback Cutthroat Trout <i>Oncorhynchus clarkii stomias</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2775">https://ecos.fws.gov/ecp/species/2775</a>	Threatened
Pallid Sturgeon <i>Scaphirhynchus albus</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> <li>Project includes water-related activities and/or use in the N. Platte, S. Platte, and Laramie River Basins which may affect listed species in Nebraska.</li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/7162">https://ecos.fws.gov/ecp/species/7162</a>	Endangered

## INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## FLOWERING PLANTS

NAME	STATUS
Ute Ladies'-tresses <i>Spiranthes diluvialis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2159">https://ecos.fws.gov/ecp/species/2159</a>	Threatened

## CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.



## **IPAC USER CONTACT INFORMATION**

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City: Tampa  
State: FL  
Zip: 33607  
Email: paul.sanford@aecom.com  
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# C-130J RECAP ALTERNATIVE 4 - PETERSON SFB

## BIOLOGICAL ANALYSIS

Prepared using IPaC

Generated by Allison Carr (allison.carr@aecom.com)

May 18, 2023

The purpose of this document is to assess the effects of the proposed project and determine whether the project may affect any federally threatened, endangered, proposed, or candidate species. If appropriate for the project, this document may be used as a biological assessment (BA), as it is prepared in accordance with legal requirements set forth under [Section 7 of the Endangered Species Act \(16 U.S.C. 1536 \(c\)\)](#).

In this document, any data provided by U.S. Fish and Wildlife Service is based on data as of May 17, 2023.

Prepared using IPaC version 6.92.0-rc7



# **C-130J RECAP ALTERNATIVE 4 - PETERSON SFB BIOLOGICAL ASSESSMENT**

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# 1 DESCRIPTION OF THE ACTION

## 1.1 PROJECT NAME

C-130J Recap Alternative 4 - Peterson SFB

## 1.2 EXECUTIVE SUMMARY

See narrative provided.

## 1.3 EFFECT DETERMINATION SUMMARY

SPECIES (COMMON NAME)	SCIENTIFIC NAME	LISTING STATUS	PRESENT IN ACTION AREA	EFFECT DETERMINATION
<a href="#">Eastern Black Rail</a>	Laterallus jamaicensis ssp. jamaicensis	Threatened	No	NE
<a href="#">Gray Wolf</a>	Canis lupus	Endangered	No	NE
<a href="#">Greenback Cutthroat Trout</a>	Oncorhynchus clarkii stomias	Threatened	No	NE
<a href="#">Monarch Butterfly</a>	Danaus plexippus	Candidate	Excluded from analysis	Excluded from analysis
<a href="#">Pallid Sturgeon</a>	Scaphirhynchus albus	Endangered	No	NE
<a href="#">Piping Plover</a>	Charadrius melodus	Threatened	No	NE
<a href="#">Ute Ladies'-tresses</a>	Spiranthes diluvialis	Threatened	No	NE



## 1.4 PROJECT DESCRIPTION

### 1.4.1 LOCATION



#### LOCATION

El Paso County, Colorado

### 1.4.2 DESCRIPTION OF PROJECT HABITAT

Wildlife species occurring within Peterson SFB are typical of those found in disturbed grassland communities and short- and tallgrass prairie systems throughout Colorado. Species presence and habitat is limited at Peterson SFB, due to the developed nature of the site and the presence of security fencing which prevents larger species from accessing the installation.



### 1.4.3 PROJECT PROPONENT INFORMATION

*Provide information regarding who is proposing to conduct the project, and their contact information. Please provide details on whether there is a Federal nexus.*

#### REQUESTING AGENCY

Department of Defense

#### FULL NAME

Allison Carr

#### STREET ADDRESS

10 Orms Street, Ste 405

#### CITY

Providence

#### STATE

RI

#### ZIP

02904

#### PHONE NUMBER

3025846295

#### E-MAIL ADDRESS

allison.carr@aecom.com

#### LEAD AGENCY

Lead agency is the same as requesting agency

### 1.4.4 PROJECT PURPOSE

The purpose of the Proposed Action is to replace existing C-130H aircraft with the congressionally approved eight state-of-the-art C-130J aircraft. The proposed recapitalization of the C-130H to the C-130J model is needed to respond to evolving mission needs and operational demands, particularly in response to weather-related events. The C-130J model performance enhances situational awareness in low-level flying conditions compared to the C-130H model.

The minimum age of C-130H aircraft currently in use is 27 years and is nearing the end of its useful life, including decreasing operational reliability, and increasing routine maintenance costs. The C-130J incorporates state-of-the-art technology, which reduces manpower requirements, lowers operating and support costs, and provides long-term life-cycle cost savings over the C-130H model. Compared to older C-130s, the C-130J model climbs faster and higher, flies farther at a higher cruise speed, and takes off and lands over a shorter distance. The C-130J has a smaller crew and requires fewer support personnel (manpower) compared to the C-130H.

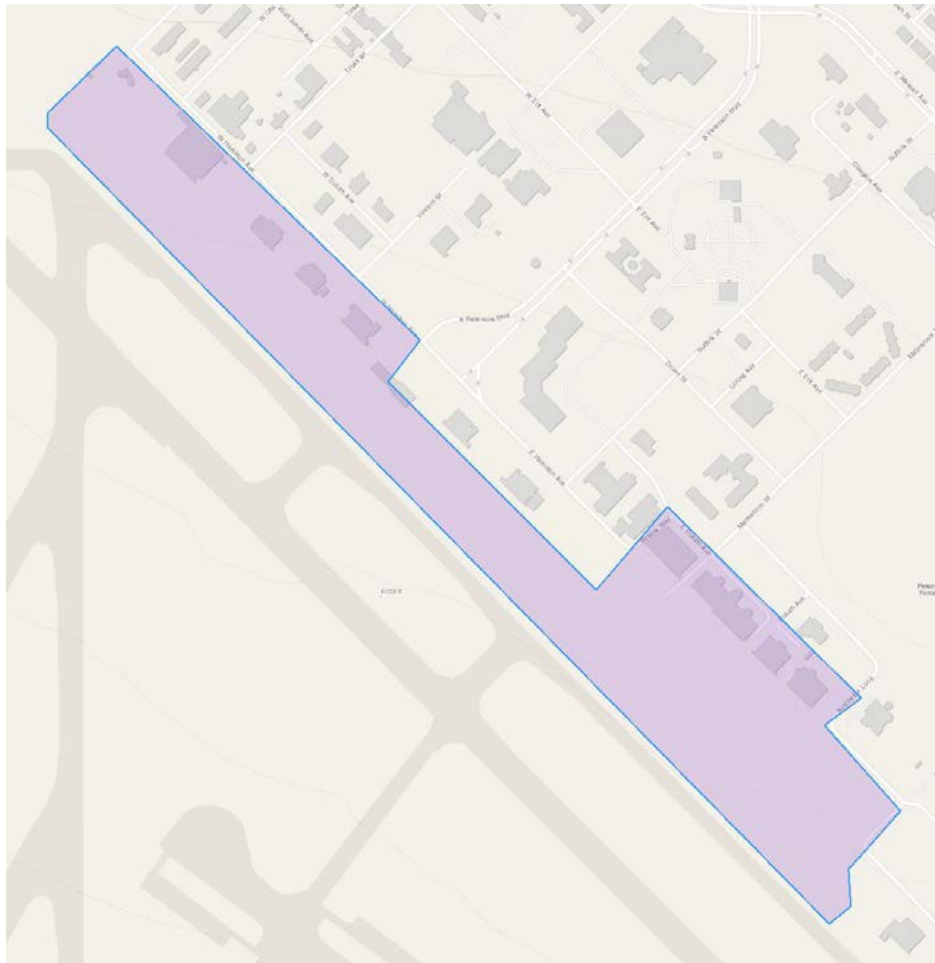
If Peterson SFB were selected as the intended location for receipt of the C-130J, the described facility modifications would be necessary to provide adequate facility space and airfield parking/movement space for the 15-foot longer C-130J aircraft.



## 1.4.5 PROJECT TYPE AND DECONSTRUCTION

This project is a building and airfield modifications project.

### 1.4.5.1 PROJECT MAP



#### LEGEND



Project footprint



Building and airfield modifications: Building and airfield modifications



#### **1.4.5.2 BUILDING AND AIRFIELD MODIFICATIONS**

##### **ACTIVITY START DATE**

September 29, 2023

##### **ACTIVITY END DATE**

May 31, 2024

##### **STRESSORS**

This activity is not expected to have any impact on the environment.

##### **DESCRIPTION**

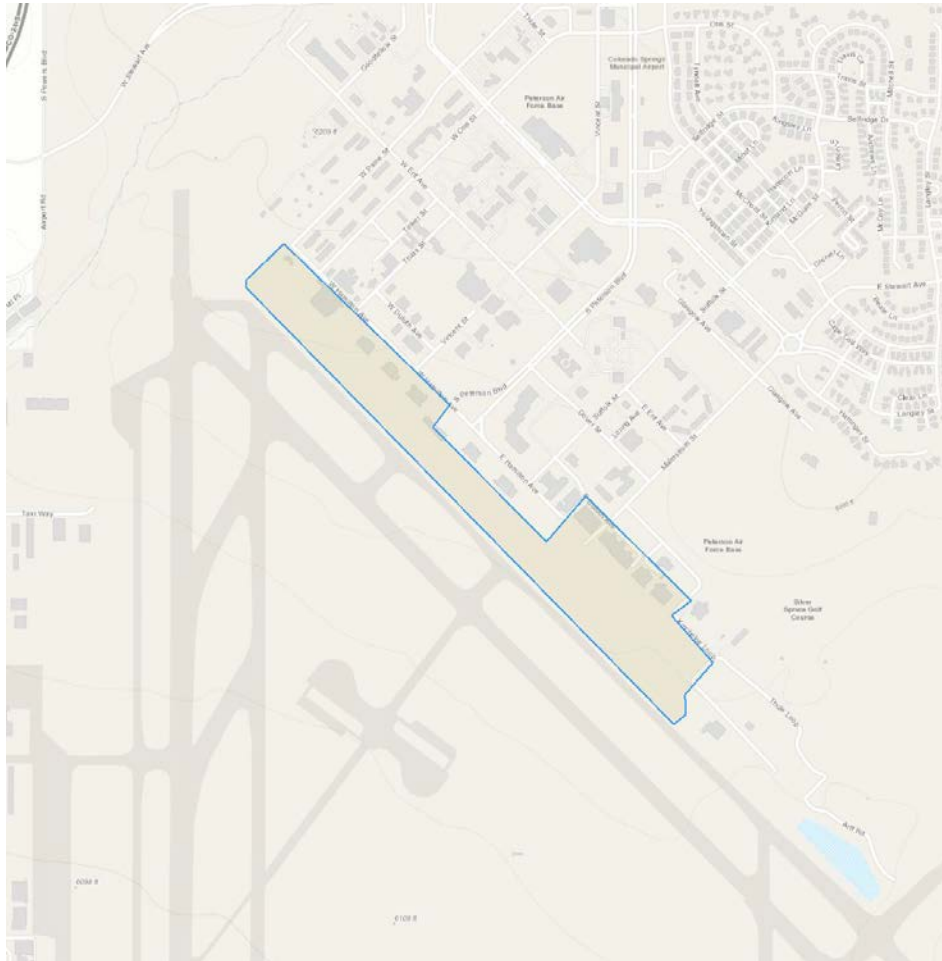
Near term facility modifications (i.e., building renovation/modification, aircraft apron reconfiguration) to potentially recapitalize C-130H aircraft with C-130J aircraft. Facility modifications necessary to accept the C-130J at Peterson SFB and achieve IOC would include an approximately 30-foot by 36-foot addition to the northwest side of Building 216, to establish a composite material maintenance shop, installation of the new propeller balancing table in the engine shop bay of Building 502, re-striping the airfield ramp to adjust taxiway positions in order to maintain aircraft safety separations for the longer C-130J, and providing new mooring points for each parking spot.

#### **1.4.6 ANTICIPATED ENVIRONMENTAL STRESSORS**

*Describe the anticipated effects of your proposed project on the aspects of the land, air and water that will occur due to the activities above. These should be based on the activity deconstructions done in the previous section and will be used to inform the action area.*



## 1.5 ACTION AREA



### LEGEND



Project footprint



Stressor location



## **1.6 CONSERVATION MEASURES**

*Describe any proposed measures being implemented as part of the project that are designed to reduce the impacts to the environment and their resulting effects to listed species. To avoid extra verbiage, don't list measures that have no relevance to the species being analyzed.*

***No conservation measures have been selected for this project.***

## **1.7 PRIOR CONSULTATION HISTORY**

None

## **1.8 OTHER AGENCY PARTNERS AND INTERESTED PARTIES**

None

## **1.9 OTHER REPORTS AND HELPFUL INFORMATION**

None



## 2 SPECIES EFFECTS ANALYSIS

*This section describes, species by species, the effects of the proposed action on listed, proposed, and candidate species, and the habitat on which they depend. In this document, effects are broken down as direct interactions (something happening directly to the species) or indirect interactions (something happening to the environment on which a species depends that could then result in effects to the species).*

*These interactions encompass effects that occur both during project construction and those which could be ongoing after the project is finished. All effects, however, should be considered, including effects from direct and indirect interactions and cumulative effects.*

### 2.1 EASTERN BLACK RAIL

*This species has been excluded from analysis in this environmental review document.*

#### JUSTIFICATION FOR EXCLUSION

The Eastern black rail (*Laterallus jamaicensis* ssp. *jamaicensis*) nests in riparian marshes and wet meadows. Nesting and foraging habitat includes various grasses, sedges, and rushes. Wildlife habitat within Peterson SFB is limited given the highly developed nature of the site. Suitable wildlife habitat is present along the southwestern edge of the aircraft parking area, but outside the installation boundary. While these areas would not be directly affected by construction and building modification activities occurring within Peterson SFB, and wildlife living within those areas would be removed from the actual construction sites. Wildlife may wander onto and access the site, but due to surrounding development, high human presence, and the implementation of IPMP activities to limit wildlife in aircraft areas, the Eastern black rail is not likely to be present.

### 2.2 GRAY WOLF

*This species has been excluded from analysis in this environmental review document.*

#### JUSTIFICATION FOR EXCLUSION

Gray wolves (*Canis lupus*) are habitat generalists that occupy a wide range of habitats such as temperate forests, mountains, tundra, grasslands, and deserts. However, gray wolves are unlikely to be present at Peterson SFB due to the developed natural of the site and the presence of security fencing which prevents larger species from accessing the installation.



## **2.3 GREENBACK CUTTHROAT TROUT**

*This species has been excluded from analysis in this environmental review document.*

### **JUSTIFICATION FOR EXCLUSION**

While limited aquatic habitat is present at Peterson SFB, none occurs within the action area, and no fish or amphibians have been documented at the installation.

## **2.4 MONARCH BUTTERFLY**

*This species has been excluded from analysis in this environmental review document.*

### **JUSTIFICATION FOR EXCLUSION**

The project's action area is located on completely developed airfield area, unpaved areas of which are mowed/maintained. It is unlikely that the action area contains vegetation or habitat that would be desirable by this species for feeding and reproduction activities.

## **2.5 PALLID STURGEON**

*This species has been excluded from analysis in this environmental review document.*

### **JUSTIFICATION FOR EXCLUSION**

While limited aquatic habitat is present at Peterson SFB, none occurs within the action area, and no fish or amphibians have been documented at the installation.



## **2.6 PIPING PLOVER**

*This species has been excluded from analysis in this environmental review document.*

### **JUSTIFICATION FOR EXCLUSION**

The piping plover (*Charadrius melodus*) nests along ocean shores, lakeshores, and rivers in sandy areas with sparse vegetation. Foraging habitat includes beaches and exposed sandflats and mudflats. Wildlife habitat within Peterson SFB is limited given the highly developed nature of the site. Suitable wildlife habitat is present along the southwestern edge of the aircraft parking area, but outside the installation boundary. While these areas would not be directly affected by construction and building modification activities occurring within Peterson SFB, and wildlife living within those areas would be removed from the actual construction sites. Wildlife may wander onto and access the site, but due to surrounding development, high human presence, and the implementation of IPMP activities to limit wildlife in aircraft areas, the piping plover is not likely to be present.

## **2.7 UTE LADIES'-TRESSES**

*This species has been excluded from analysis in this environmental review document.*

### **JUSTIFICATION FOR EXCLUSION**

The Ute Ladies'-tresses (*Spiranthes diluvialis*) is found in moist meadows with perennial and seasonally flooded river terraces, floodplains, oxbows, spring-fed stream channels, and lakeshores. There project's action area consists of a completely developed airfield, unpaved areas of which are mowed/maintained. Therefore, suitable habitat for this species is not present in the action area.



### **3 CRITICAL HABITAT EFFECTS ANALYSIS**

*No critical habitats intersect with the project action area.*



## **4 SUMMARY DISCUSSION AND CONCLUSION**

### **4.1 SUMMARY DISCUSSION**

**Vegetation:** Proposed activities to construct an extension to Building 216 and associated excavation and grading activities would result in ground disturbance and minimal removal of landscape vegetation at the southern end of the building. No trees would be removed to accommodate the building expansion. Other facility and infrastructure upgrades would consist primarily of interior work and renovations to accommodate the new class of aircraft. Invasive species or noxious weeds that may be introduced to the installation by construction equipment coming from off-site locations would be managed in accordance with Peterson SFB's IPMP. Restriping of the airfield ramp would not disturb any vegetation. Therefore, Alternative 4 would have minimal impacts on vegetation. **Wildlife:** Wildlife habitat within Peterson SFB is limited given the highly developed nature of the site. Suitable wildlife habitat is present along the southwestern edge of the aircraft parking area, but outside the installation boundary. While these areas are located within the action area, they would not be directly affected by construction and building modification activities occurring within Peterson SFB, and wildlife living within those areas would be removed from the actual construction sites. Wildlife may wander onto and access the site, but due to surrounding development, high human presence, and the implementation of IPMP activities to limit wildlife in aircraft areas, fauna species are not likely to be present. No aquatic habitat is present and no in-water work would occur under Alternative 4. Therefore, Alternative 4 would have no effect on wildlife.

**Special Status Species:** Please refer to Species Presence narrative, which indicated that suitable habitat is not present in the action area for any species being considered. Facility modifications necessary to accept the C-130J at Peterson SFB would occur in area that have already been fully developed.

### **4.2 CONCLUSION**

In conclusion, the facility and airfield modifications planned should Peterson SFB be selected as the installation to receive the C-130J aircraft would be minor in nature. The action area for these modifications is on already disturbed and developed land and likely does not provide suitable habitat for any species considered. No critical habitat exists in the area. A "No Effect" determination is recommended for these species.