EXECUTIVE SUMMARY

Environmental Impact Statement

for T-7A Recapitalization at
Columbus Air Force Base, Mississippi

April
2024

Privacy Advisory

This Environmental Impact Statement (EIS) has been provided for public comment in accordance with the National Environmental Policy Act (NEPA), Council on Environmental Quality Regulations for Implementing NEPA (Title 40 Code of Federal Regulations [CFR] Parts 1500–1508), and 32 CFR Part 989, *Environmental Impact Analysis Process (EIAP)*. EIAP provides an opportunity for public input on United States Department of the Air Force (DAF) decision-making, allows the public to offer input on alternative ways for DAF to accomplish what it is proposing, and solicits comments on DAF's analysis of environmental effects.

Public input allows DAF to make better-informed decisions. Letters or other written or verbal comments provided may be published in this EIS. Providing personal information is voluntary. Private addresses will be compiled to develop a mailing list for those requesting copies of this EIS. However, only the names of the individuals making comments and specific comments will be disclosed. Personal information, home addresses, telephone numbers, and email addresses will not be published in this EIS.

Section 508 of the Rehabilitation Act of 1973

This EIS and its project website are compliant with Section 508 of the Rehabilitation Act of 1973 because assistive technology (e.g., "screen readers") can be used to help the disabled to understand these electronic media. Due to the nature of graphics, figures, tables, and images occurring in the document, accessibility may be limited to a descriptive title for each item.

Cover Photo Credit: Boeing T-7A Red Hawk Website, September 2021
https://www.boeing.com/defense/t-7a/#/gallery

ABBREVIATIONS AND ACRONYMS

AETC	Air Education and Training Command
AFB	Air Force Base
APZ	accident potential zones
CEQ	Council on Environmental Quality
CZ	clear zones
DAF	Department of the Air Force
dBA	A-weighted decibel
DNL	day-night average sound level
EIS	Environmental Impact Statement
FSRM	facilities sustainment, restoration, and modernization
GHG	greenhouse gas
JBSA	Joint Base San Antonio
MILCON	military construction
MOA	Military Operations Area
MTR	Military Training Route
NEPA	National Environmental Policy Act
SHPO	State Historic Preservation Officer
SUA	special use airspace
UMMC	unspecified minor military construction

This page intentionally left blank.

Executive Summary

ENVIRONMENTAL IMPACT STATEMENT

FOR

T-7A RECAPITALIZATION

AT

COLUMBUS AIR FORCE BASE, MISSISSIPPI

AIR EDUCATION AND TRAINING COMMAND

APRIL 2024

This page intentionally left blank.

Table of Contents

Acronyms and Abbreviations
Introduction ES-1
Purpose of and Need for Action ES-2
Description of the Proposed Action and Alternatives ES-2
ALTERNATIVE 1 ..... ES-3
ALTERNATIVE 2 ..... ES-4
ALTERNATIVE 3 ..... ES-4
NO ACTION ALTERNATIVE ES-5
Identification of the Preferred Alternative ES-5
Environmental Consequences ES-6

Tables

Table ES-1. Summary of Environmental Impacts ES-7

This page intentionally left blank.

Executive Summary

Introduction

The United States Department of the Air Force (DAF), Air Education and Training Command (AETC) proposes to recapitalize the T-38C Talon flight training program at Columbus Air Force Base (AFB), Mississippi, with T-7A Red Hawk aircraft. Recapitalization would entail introduction of T-7A aircraft and flight operations at Columbus AFB and associated special use airspace (SUA) to replace all T-38C aircraft assigned to the installation; introduction of nighttime (between 10 p.m. and 7 a.m.) T-7A flight operations; changes to the number of personnel and dependents in the Columbus AFB region; and construction and upgrade of operations, support, and maintenance facilities.

Background. The T-38C is a twin-engine, high-altitude, supersonic jet used by DAF and other nations for pilot training. AETC operates the T-38C from five pilot training installations: Joint Base San Antonio (JBSA)-Randolph in Texas, Columbus AFB in Mississippi, Laughlin AFB in Texas, Vance AFB in Oklahoma, and Sheppard AFB in Texas. As an older aircraft, training with the T-38C does not prepare pilots adequately for the technological advancements of modern fourth and fifth generation aircraft,[1] including nighttime flight training. The T-38C is expected to reach the end of its service life within the next decade.

DAF plans to recapitalize the T-38C fleet with T-7A aircraft to provide a training environment suitable for modern aircraft. Program-wide, DAF expects to procure approximately 350 T-7A aircraft from Boeing and deliver these aircraft to the five T-38C pilot training installations using a geographically phased replacement plan.

In a strategic basing decision memorandum for record, dated February 16, 2018, the Secretary of the Air Force identified JBSA-Randolph and Columbus, Laughlin, Sheppard, and Vance AFBs for T-7A recapitalization. DAF evaluated each of the five installations using criteria that included mission factors (e.g., weather and the ability to meet syllabus requirements), infrastructure capacity, and potential environmental constraints and costs. In a second strategic basing decision memorandum for record, dated June 19, 2022, the Secretary of the Air Force selected JBSA-Randolph as the first installation to undergo recapitalization because it provides the majority of instructor pilot training and is an Introduction to Fighter Fundamentals location. Recapitalizing JBSA-Randolph would serve as an essential first step in establishing a T-7A instructor pilot pipeline and would set the conditions to transition to T-7A training at the other four pilot training installations.

On January 29, 2021, the Acting Secretary of the Air Force approved the preferred alternative sequencing and locations for the four installations following JBSA-Randolph to possibly undergo T-7A recapitalization. Acting on AETC recommendations, the Acting Secretary selected Columbus AFB to be the second installation to be analyzed environmentally for possible recapitalization. Recapitalizing Columbus AFB second would result in the least impact on

[1] "Fourth generation aircraft" refers to those aircraft developed or manufactured with updated variants in the later part of the 20th century, such as the F-15E or the F-16. "Fifth generation aircraft" refers to modern aircraft with advanced avionics developed in the early part of the 21st century, such as the F-22 and F-35.

continued pilot production during the transition between aircraft types, provide the most cost-efficient student production and management plan, and align with AETC's student pipeline flow for the Undergraduate Pilot Training, Introduction to Fighter Fundamentals, and soon to be developed Fighter/Bomber Fundamentals curricula. Laughlin, Vance, and Sheppard AFBs would follow as the third, fourth, and fifth installations, respectively.

Purpose of and Need for Action

Purpose. As noted in the Secretary of the Air Force's strategic basing decisions from February 16, 2018, and January 29, 2021, DAF plans to recapitalize AETC's T-38C aircraft fleet with T-7A aircraft at the five pilot training installations to provide a training environment suitable for modern aircraft. The purpose of the Proposed Action addressed in this Environmental Impact Statement (EIS) is to continue the T-7A recapitalization program by recapitalizing Columbus AFB to prepare pilots to operate modern fourth and fifth generation aircraft.

Need. The Proposed Action is needed because current training practices with older T-38C aircraft do not prepare pilots adequately for the technological advancements of fourth and fifth generation aircraft. By 2031, more than 60 percent of the Combat Air Force will be comprised of fifth generation aircraft, requiring a modern, capable training platform with capabilities beyond those available with the T-38C. Additionally, training systems provided with the newer T-7A aircraft allow for enhanced and improved flight and simulator training. The T-7A recapitalization program will allow DAF to provide more efficient and effective instructor and pilot training for operating fourth and fifth generation aircraft. T-7A recapitalization at Columbus AFB would allow DAF to continue the geographically phased T-7A recapitalization sequence, ensuring DAF pilot training requirements are met.

Description of the Proposed Action and Alternatives

The Proposed Action is recapitalization of the T-38C flight training program at Columbus AFB with T-7A aircraft and entails the following elements:

- Replacement of all T-38C aircraft assigned to Columbus AFB with T-7A aircraft.
- Transition of aircraft operations at Columbus AFB and associated SUA from the T-38C to the T-7A.
- Introduction of nighttime (between 10 p.m. and 7 a.m.) T-7A operations.
- Changes to the number of personnel and dependents in the Columbus AFB region.
- Construction of and upgrades to operations, support, and maintenance facilities through 11 projects—five military construction (MILCON)/unspecified minor military construction (UMMC) projects and six facilities sustainment, restoration, and modernization (FSRM) projects—to support pilot training and aircraft operation and maintenance.

DAF considered three alternative ways to implement T-7A recapitalization at Columbus AFB (i.e., Alternatives 1, 2, and 3). These alternatives consider different numbers of T-7A aircraft stationed at Columbus AFB and different numbers of T-7A operations at Columbus AFB and associated SUA.

Alternative 1

Aircraft. Columbus AFB would receive up to 61 T-7A aircraft and perform sufficient operations for sustaining pilot training while simultaneously phasing out the T-38C aircraft. T-7A aircraft would be delivered to Columbus AFB from the manufacturer beginning in 2028 and continuing through 2030. As T-7A aircraft are delivered and placed into service, T-38C aircraft would be withdrawn from service. The first T-38Cs would be withdrawn in 2028 and the last in 2030. In total, all 85 T-38C aircraft assigned to Columbus AFB would be withdrawn from service and considered for retirement or repurposed for use at other locations.

Aircraft Operations. Aircraft operations at Columbus AFB and its associated SUA (i.e., Military Operations Areas [MOAs], Ranges, and Military Training Routes [MTRs]) would transition from the T-38C to the T-7A over the 3-year aircraft delivery and withdrawal period. T-7A operations would begin in 2028 and increase to steady state in 2030. T-38C operations would begin to decrease in 2028 and conclude by the end of 2029. No further T-38C operations would occur in 2030 or thereafter.

With the T-7A's enhanced capabilities and avionics, the Proposed Action includes evening and nighttime T-7A operations. Evening operations include those from dusk until 10 p.m. and are already performed with the T-38C at Columbus AFB. Nighttime operations, as defined for aircraft noise modeling, occur between 10 p.m. and 7 a.m. and are not currently performed with the T-38C at Columbus AFB, although other aircraft at the installation—such as the T-1 and T-6—do perform nighttime operations. Up to 474 annual nighttime T-7A operations would occur at Columbus AFB for Alternative 1, which is approximately 0.5 percent of annual T-7A operations. Nighttime T-7A operations would be conducted in the vicinity of the Columbus AFB airfield and would not enter the SUA (i.e., MOAs and MTRs).

T-7A pilot training would use the same SUA used currently by the T-38C. This SUA is MOAs Columbus 1, Columbus 2, Columbus 3, Birmingham, and Birmingham 2; Range R-4404; and MTRs IR-066, IR-068, IR-091, VR-1014, and VR-1031. No changes to SUA configurations (i.e., size, shape, or location) are required for T-7A recapitalization. T-7A would be limited to sub-sonic speeds in all phases of pilot training.

Personnel and Dependents. An increase of approximately 43 personnel is projected at Columbus AFB during the aircraft transition period (i.e., 2028 and 2029). This increase would occur during the transition period because DAF would be training pilots with and maintaining two types of aircraft, resulting in a temporary increase in workforce requirements for operations, civilian simulator instructors, and maintenance. The initial increase in workforce would subside as T-38C aircraft are removed from service. The steady state personnel requirement at Columbus AFB is projected to be approximately 31 persons fewer than the current baseline staffing levels and 74 persons fewer than peak staffing levels.

Associated with the workforce change is a corresponding change in the number of dependents (e.g., spouses, children, other family members) who would accompany the personnel. DAF estimates 82 dependents would accompany the 43 additional personnel during the aircraft transition period, for a total of 125 additional people in the Columbus AFB vicinity during 2028 and 2029, as compared to current baseline staffing levels. After the aircraft transition period,

the loss of 31 personnel from Columbus AFB would remove 59 dependents and 90 total people from the Columbus AFB vicinity, as compared to current baseline staffing levels.

Facility Requirements. Five MILCON/UMMC projects and six FSRM projects would potentially occur at Columbus AFB to provide modern facilities and infrastructure to support T-7A aircraft maintenance, training, and operational requirements. These projects are as follows:

- Construct a ground-based training system facility.
- Construct a unit maintenance training facility.
- Construct a new hush house.
- Construct up to 46 T-7A shelters.
- Construct an egress shop.
- Renovate Building 452 (Hangar 3).
- Renovate Building 454 (Hangar 4).
- Construct an antenna farm on top of the ground-based training system facility.
- Renovate the interior of the squadron operations buildings (Buildings 216 and 234).
- Improve the airfield by remarking the T-38C ramp to the width of the T-7A. Install new moorings and anchor rods for T-7A aircraft. Replace aircraft arresting system. Remove aboveground Centralized Aircraft Support System service modules.
- Construct a new trim pad across from the hush house on the engine run-up apron.

Alternative 2

Columbus AFB would receive up to 61 T-7A aircraft and perform T-7A operations at a level that is approximately 25 percent greater than Alternative 1. Alternative 2 is intended to cover a scenario in which, for either broad strategic or tactical operational reasons, DAF requires a surge or increase in pilot training operations above current plan. Like Alternative 1, Columbus AFB would receive up to 61 T-7A aircraft from the manufacturer with all aircraft arriving no later than 2030, T-7A operations would reach full capacity in 2030, and T-38C operations would conclude by the end of 2029. However, beginning in 2028, T-7A aircraft would perform annual operations at Columbus AFB and associated SUA at an intensity that is approximately 25 percent greater than Alternative 1 to meet potential surge requirements. T-7A nighttime operations would occur with up to 595 annual nighttime operations at Columbus AFB. All other aspects of Alternative 2, including the number of personnel and dependents and the MILCON/UMMC and FSRM projects, would be identical to those described for Alternative 1.

Alternative 3

Alternative 3 is intended to provide DAF with operational flexibility, and inclusion of this alternative in this EIS provides analysis to evaluate future capacity needs. For Alternative 3, Columbus AFB would receive up to 77 T-7A aircraft. The T-7A operational tempo would be the same as Alternative 1, but due to the 25 percent increase in the number of aircraft over Alternatives 1 and 2, the total annual T-7A operations would occur at a level that is 25 percent greater than Alternative 1 and equal to the annual operations proposed for Alternative 2. If Alternative 3 were selected for implementation, the Secretary of the Air Force would issue another strategic basing decision memorandum for record to authorize the additional T-7A aircraft.

Columbus AFB would receive up to 77 T-7A aircraft from the manufacturer with all aircraft arriving no later than 2030, T-7A operations would reach full capacity in 2030, and T-38C operations would conclude by the end of 2029. Identical to Alternative 2, Alternative 3 includes annual T-7A operations at Columbus AFB and associated SUA at an intensity that is approximately 25 percent greater than Alternative 1. T-7A nighttime operations would occur with up to 595 annual nighttime operations at Columbus AFB. Alternative 3 also incorporates a UMMC project alternative to install up to 58 T-7A shelters (rather than up to 46) to accommodate the additional T-7A aircraft. All other aspects of Alternative 3 would be identical to those described for Alternative 1.

No Action Alternative

Council on Environmental Quality (CEQ) and DAF National Environmental Policy Act (NEPA) regulations require consideration of the No Action Alternative to assess any environmental consequences that may occur if the Proposed Action is not implemented. The No Action Alternative serves as a baseline against which the impacts of the Proposed Action and other potential action alternatives can be evaluated.

DAF would not implement T-7A recapitalization at Columbus AFB. T-7A aircraft manufacturing has been contracted; therefore, if the No Action Alternative were implemented, the T-7A aircraft disposition would be determined separately. Columbus AFB's existing fleet of T-38C aircraft would continue to be used in their current capacity even though they will reach the end of their service lives within the next decade. Maintenance requirements for these aircraft would continue to increase. No changes to current flight operations would likely occur until the end of the T-38Cs' service life. The retention and continued use of the T-38C aircraft would not change the number of personnel on Columbus AFB. The number and types of T-38C aircraft operations would remain the same, consistent with the current training curriculum. The SUA (MOAs, Range, and MTRs) for T-38C operations would continue to be used at the same tempo and in a similar manner. No MILCON/UMMC or FSRM projects would be undertaken to support the T-7A program at Columbus AFB.

Identification of the Preferred Alternative

DAF identified Alternative 1 (i.e., addressing recapitalization at Columbus AFB with up to 61 T-7A aircraft and performing sufficient operations for sustaining pilot training while simultaneously phasing out the T-38C aircraft) as its preferred alternative in the Draft EIS. Following the Draft EIS public comment period, DAF switched its preferred alternative to Alternative 3 (i.e., addressing recapitalization at Columbus AFB with up to 77 T-7A aircraft and performing T-7A operations at a level that is approximately 25 percent greater than Alternative 1) because of anticipated changes in the pilot training curriculums and syllabuses. Alternative 3 is preferred because it provides sufficient operational capacity for AETC's foreseeable pilot production needs and provides operational flexibility for future capacity needs. As previously noted, if Alternative 3 were selected for implementation, the Secretary of the Air Force would issue another strategic basing decision memorandum for record to authorize the additional T-7A aircraft.

Environmental Consequences

In compliance with NEPA, CEQ, and DAF Environmental Impact Analysis Process (32 CFR Part 989) guidelines, the EIS focuses on those environmental resources potentially subject to impacts from the three action alternatives and the No Action Alternative. The environmental resources analyzed in detail in the EIS are air quality and climate change, noise, biological resources, cultural resources, land use, hazardous materials and wastes, infrastructure and transportation, safety, water resources, and environmental justice. **Table ES-1** summarizes the impacts on each of these environmental resources under each alternative.

Table ES-1. Summary of Environmental Impacts

No Action Alternative	Proposed Action		
	Alternative 1	**Alternative 2**	**Alternative 3 – Preferred Alternative**
Brief Description of the Alternatives			
T-7A recapitalization at Columbus AFB would not occur. T-38C training would continue to occur in its current capacity.	T-7A recapitalization at Columbus AFB would occur with up to 61 T-7A aircraft and T-7A operations at a level sustaining pilot training while simultaneously phasing out the T-38C and phasing in the T-7A.	T-7A recapitalization at Columbus AFB would occur with up to 61 T-7A aircraft and T-7A operations at a level 25 percent greater than Alternative 1.	T-7A recapitalization at Columbus AFB would occur with up to 77 T-7A aircraft and T-7A operations at a level 25 percent greater than Alternative 1. Compared to Alternatives 1 and 2, up to 12 additional T-7A shelters would be constructed.
Air Quality and Climate Change			
No impacts would occur.	Short- and long-term, less than significant, adverse and beneficial impacts would occur. The short-term impacts would occur from the use of heavy equipment during construction. The long-term impacts would occur from operation and heating of new facilities and flight operations. The proposed flight operations would result in annual net increases and decreases in criteria pollutants and greenhouse gases (GHG) depending on the location, year, and pollutant in question. Increases in criteria pollutant emissions would not exceed the *de minimis* level threshold or insignificance indicators. GHG emissions would not contribute meaningfully to the potential effects of global climate change. Alternative 1 would emit the least amount of GHG, with the least potential to contribute to ongoing climate change, when compared to the other two action alternatives. No future climate scenario or potential climate stressor would have significant effects on any element of Alternative 1.	The short-term impacts from construction and the long-term impacts from operation and heating of the new facilities would be similar to those described for Alternative 1. While greater air emissions would occur from the proposed flight operations compared to Alternative 1, these emissions would result in annual net increases and decreases in criteria pollutants and GHGs depending on the location, year, and pollutant in question. Increases in criteria pollutant emissions would not exceed the *de minimis* level threshold or insignificance indicators. GHG emissions from construction would be identical to those for Alternative 1. While GHG emissions from flight operations would be greater than those for Alternative 1, such emissions would not contribute meaningfully to the potential effects of global climate change. No future climate scenario or potential climate stressor would have significant effects on any element of Alternative 2.	The short- and long-term impacts would be similar to those described for Alternatives 1 and 2. While greater air emissions would occur compared to Alternatives 1 and 2, these emissions would result in annual net increases and decreases in criteria pollutants and GHGs depending on the location, year, and pollutant in question. Increases in criteria pollutant emissions would not exceed the *de minimis* level threshold or insignificance indicators. GHG emissions would be greater than those for Alternatives 1 and 2, but such emissions would not contribute meaningfully to the potential effects of global climate change. No future climate scenario or potential climate stressor would have significant effects on any element of Alternative 3.

No Action Alternative	Proposed Action		
	Alternative 1	**Alternative 2**	**Alternative 3 – Preferred Alternative**
Noise			
No impacts would occur.	Short- and long-term, less than significant, adverse impacts on the noise environment would occur. Short-term impacts would be due to noise generated by heavy equipment during construction. Long-term impacts would be due to the introduction of the T-7A aircraft and nighttime operations (those between 10 p.m. and 7 a.m.). Long-term changes in operational noise would increase areas of incompatible land use on and adjacent to Columbus AFB. Land acreage within the 65-A-weighted decibels (dBA) day-night average sound level (DNL) or greater area would increase on-installation by 524 acres and off-installation by 3,442 acres. The estimated population within the 65-dBA DNL or greater would increase by 434 on-installation and 160 off-installation.	Short-term impacts from construction would be the same as those described for Alternative 1. Compared to Alternative 1, long-term noise impacts would be slightly greater due to the greater number of aircraft operations. Land acreage within the 65-dBA DNL or greater area would increase on-installation by 637 acres and off-installation by 4,479 acres. The estimated population within the 65-dBA DNL or greater area would increase by 689 on-installation and 244 off-installation.	Short-term impacts from construction would be similar to those described for Alternative 1. Long-term impacts from aircraft operations would be the same as those described for Alternative 2.

No Action Alternative	Proposed Action		
	Alternative 1	**Alternative 2**	**Alternative 3 – Preferred Alternative**
Biological Resources			
No impacts would occur.	Short- and long-term, less than significant, adverse impacts on vegetation and wildlife would occur at Columbus AFB from the MILCON/UMMC and FSRM projects. Long-term, less than significant, adverse impacts on wildlife may occur from aircraft strikes and noise from the proposed aircraft operations. Nighttime aircraft operations would increase the risk of bird and bat strikes. The Proposed Action may affect, but is not likely to adversely affect, 8 federally listed or candidate species and would not affect the remaining 73 federally listed or candidate species with a potential to occur on Columbus AFB or within or underlying the SUA proposed for flight operations. No appreciable effects on state-listed or sensitive species would occur.	The short-term impacts would be the same as those described for Alternative 1. The long-term impacts would be slightly greater than those described for Alternative 1 because the additional aircraft operations would increase the risk of bird and bat strikes compared to Alternative 1.	Impacts would be the same as those described for Alternative 2.

No Action Alternative	Proposed Action		
	Alternative 1	**Alternative 2**	**Alternative 3 – Preferred Alternative**
Cultural Resources			
No impacts would occur.	The only aspects of the Proposed Action with potential to effect historic properties are the MILCON/UMMC and FSRM projects. DAF determined that these projects would have no adverse effect on built environment historic properties and received concurrence from the Mississippi State Historic Preservation Officer (SHPO) on that determination in a letter dated June 21, 2023. Concurrence was conditional on the following for Buildings 452 and 454: one, the new vertical lift doors must be installed within the existing openings and two, metal panels that are similar in appearance as the existing wall cladding must be used. DAF has also determined that there would be no effect to archaeological resources and received concurrence from the Mississippi SHPO on that determination in a letter dated August 2, 2023.	Impacts would be the same as those described for Alternative 1.	Impacts would be the same as those described for Alternative 1.

No Action Alternative	Proposed Action		
	Alternative 1	**Alternative 2**	**Alternative 3 – Preferred Alternative**
Land Use			
No impacts would occur.	The proposed MILCON/UMMC and FSRM projects would be sited, designed, and constructed consistent with the Installation Development Plan and would be largely compatible and consistent with applicable land use plans and regulations. The Proposed Action would meet Federal Aviation Administration regulations specific to minimum altitude and avoidance distances. The clear zones (CZ) and accident potential zones (APZ) for Columbus AFB would remain unchanged. As noted in Noise, additional land area and population would fall within the Alternative 1 noise contours as compared to the baseline noise contours, resulting in a potential increase in incompatible land uses. Residential land use would represent less than 3 percent of the total off-installation area within the baseline and Alternative 1 noise contours; therefore, impacts would be less than significant.	Impacts would be largely similar to those described for Alternative 1. As noted in Noise, additional land area and population would fall within the Alternative 2 noise contours as compared to the Alternative 1 noise contours, resulting in a potential increase in incompatible land uses. As with the baseline and Alternative 1 noise contours, residential land use would represent less than 3 percent of the total off-installation area within the Alternative 2 noise contours; therefore, impacts would be less than significant.	Impacts would be the same as those described for Alternative 2.

No Action Alternative	Proposed Action		
	Alternative 1	**Alternative 2**	**Alternative 3 – Preferred Alternative**
Hazardous Materials and Wastes			
No impacts would occur.	Short-term, less than significant, adverse impacts would occur from the use of hazardous materials and petroleum products and the generation of hazardous wastes during construction for the MILCON/UMMC and FSRM projects and from aircraft maintenance during the aircraft transition period. No long-term impacts would occur from aircraft maintenance because the use of hazardous materials and petroleum products and the generation of hazardous wastes is expected to return to similar or slightly lower levels than baseline by 2030. Short-term, less than significant, adverse impacts could occur from the renovation of Buildings 216, 452, and 454 because these buildings potentially contain toxic substances in building materials. Long-term, less than significant, beneficial impacts would occur from renovation of these buildings by reducing the potential for future human exposure to toxic substances. Short-term, less than significant, adverse impacts from per- and polyfluoroalkyl substances would occur because the UMT facility is proposed immediately adjacent to the delineated groundwater plume of an aqueous film forming foam release area (i.e., Site SS005P). No impacts on or from radon would occur.	Impacts would be slightly greater than those described for Alternative 1, because the 25 percent increase in aircraft operations would require additional quantities of hazardous materials, hazardous wastes, and petroleum products (most notably jet fuel) to be delivered, stored, used, and disposed of appropriately at Columbus AFB.	Impacts would be slightly greater than those described for Alternative 2, because the 25 percent increase in aircraft operations, relative to Alternative 1, and the up to 16 additional aircraft to maintain would require additional quantities of hazardous materials, hazardous wastes, and petroleum products (most notably jet fuel) to be delivered, stored, used, and disposed of appropriately at Columbus AFB.

No Action Alternative	Proposed Action		
	Alternative 1	**Alternative 2**	**Alternative 3 – Preferred Alternative**
Infrastructure and Transportation			
No impacts would occur.	Long-term, less than significant, beneficial impacts on airfield infrastructure would occur from the addition of up to 46 T-7A shelters and the FSRM projects to improve the airfield. Short-term, less than significant, adverse, and long-term, less than significant, adverse and beneficial impacts on utility services (i.e., liquid fuel, electrical system, natural gas system, water supply system, wastewater system, stormwater system, communications system, and solid waste management) would occur. Temporary utility service disruptions could occur when buildings are disconnected from or connected to the applicable utility services during construction, and construction would temporarily increase the demand for these utility services. Long-term reductions in personnel and annual aircraft operations compared to the baseline likely would reduce demand for utility services slightly. Short-term, less than significant, adverse impacts on the transportation system would occur from construction traffic. Long-term, less than significant, adverse and beneficial impacts on the transportation system would occur from the personnel changes and additional parking spaces.	Compared to Alternative 1, the 25 percent increase in T-7A operations would slightly increase wear on the airfield pavement and the amount of jet fuel consumed in the long-term. However, a 25 percent increase in operations is still less than baseline operations; therefore, the overall impact would remain beneficial. Impacts on the remaining infrastructure components—namely utility services and transportation—would be identical to Alternative 1.	Impacts would be similar to those described for Alternative 2. The addition of up to 58 T-7A shelters would increase the aircraft parking capacity and provide sufficient shelter for the additional aircraft.

No Action Alternative	Proposed Action		
	Alternative 1	**Alternative 2**	**Alternative 3 – Preferred Alternative**
Safety			
No impacts would occur.	Short-term, less than significant, adverse impacts on contractor health and safety would occur during construction for the MILCON/UMMC and FSRM projects. Long-term, less than significant, adverse impacts on flight safety would occur from nighttime aircraft operations resulting in an increased potential for Bird/Wildlife Aircraft Strike Hazard incidents and other mishaps. The CZs and APZs would remain unchanged.	The impacts on contractor health and safety would be the same as those described for Alternative 1. The impacts on flight safety from 25 percent greater aircraft operations would be slightly greater than those described for Alternative 1.	Impacts would be the same as those described for Alternative 2.
Water Resources			
No impacts would occur.	Short- and long-term, less than significant, indirect, adverse impacts on groundwater and surface water would occur. The MILCON/UMMC and FSRM projects would increase impervious surface area and decrease area for groundwater infiltration by approximately 98,000 square feet (2.25 acres), leading to potentially decreased recharge of groundwater and increased stormwater runoff into nearby surface water bodies. Temporary increases in hazardous materials and petroleum product use would negligibly increase the potential for an accidental release to occur and for the contamination to reach nearby groundwater aquifers and surface water features. No direct impacts on wetlands would occur. The MILCON/UMMC and FSRM projects would not occur within or near the 100- or 500-year floodplain.	Impacts would be similar to those described for Alternative 1. Increased aircraft operations would slightly increase the potential for an accidental release of hazardous materials or petroleum products to contaminate groundwater aquifers and surface waters.	Impacts would be similar to those described for Alternative 2. Compared to Alternative 2, the additional aircraft to maintain would slightly increase the potential for an accidental release of hazardous materials or petroleum products to contaminate groundwater aquifers and surface waters.

No Action Alternative	Proposed Action		
	Alternative 1	**Alternative 2**	**Alternative 3 – Preferred Alternative**
Environmental Justice			
No impacts would occur.	Alternative 1 would have a disproportionately high and adverse impact on environmental justice and sensitive receptor populations within three of the five Census Block Groups that coincide with the 65 dBA noise contour for Alternative 1. These three Census Block Groups contain environmental justice populations at levels either above 50 percent of the total population or greater than 10 percent of the community of comparison for minority, low-income, youth, or elderly populations. Compared to baseline conditions, aircraft noise would result in a higher number of classroom learning interference events and an increase in the time above metric at the two schools analyzed in this EIS; therefore, Alternative 1 would have a disproportionate, adverse impact on children.	Impacts would be slightly greater than those described for Alternative 1 because noise and air emissions would be greater. A small portion of one additional Census Block Group, which contains an environmental justice population, would be within the 65 dBA noise contour for Alternative 2. Like Alternative 1, Alternative 2 would have a disproportionately high and adverse impact on children from classroom learning interference.	Impacts would be the same as those described for Alternative 2. A disproportionately high and adverse impact on environmental justice and sensitive receptor populations would occur.

This page intentionally left blank.