

Appendix K
Mitigations, Best Management Practices, and
Standard Operating Procedures

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ACRONYMS AND ABBREVIATIONS

1/25 SBCT	1st Brigade, 25th Infantry Division, Stryker Brigade Combat Team
ABCT	Air Brigade Combat Team
ADFG	Alaska Department of Fish and Game
AFB	Air Force Base
AFI	Air Force Instruction
ANG	Army National Guard
AR	Army Regulation
ATCAA	Air Traffic Control Assigned Airspace
BAX	Battle Area Complex
CACTF	Combined Arms Collective Training Facility
CEQ	Council on Environmental Quality
DTA	Donnelly Training Area
DZ	drop zone
EA	environmental assessment
FNSI	Finding of No Significant Impact (Army)
FONSI	Finding of No Significant Impact (Air Force)
ICRMP	Integrated Cultural Resources Management Plan
INRMP	Integrated Natural Resources Management Plan
ITAM	Integrated Training Area Management
JBER	Joint Base Elmendorf-Richardson
JPARC	Joint Pacific Alaska Range Complex
LRAM	Land Rehabilitation and Maintenance
MFE	major flying exercise
MOA	Military Operations Area
MTR	Military Training Route
NEPA	National Environmental Policy Act
ROD	Record of Decision
RTLA	Range and Training Land Assessment
SBCT	Stryker Brigade Combat Team
SOP	standard operating procedure
SUA	Special Use Airspace
USAG-FWA	U.S. Army Garrison Fort Wainwright, Alaska
USARAK	U.S. Army Alaska
USFWS	U.S. Fish and Wildlife Service

APPENDIX K MITIGATIONS, BEST MANAGEMENT PRACTICES, AND STANDARD OPERATING PROCEDURES

K.1 EXISTING MEASURES TO REDUCE IMPACTS (ARMY)

Army Regulation (AR) 350-19, *Army Sustainable Range Program* defines the Army's role in maintaining its range lands for repetitive and future use and AR 200-1, *Environmental Protection and Enhancement* provides environmental considerations and environmental stewardship principles for the Army mission and all Army activities. Established Army programs such as the Integrated Training Area Management (ITAM), which includes Range and Training Land Assessment (RTLA) and Land Rehabilitation and Management (LRAM), help monitor and repair environmental adverse effects caused by military training to foster sustainability. In addition, the Army has standard operating procedures (SOPs) and utilizes best management practices (BMPs) to help maintain sustainability and foster environmental stewardship.

Both U.S. Army Alaska (USARAK) and U.S. Army Garrison Fort Wainwright, Alaska (USAG-FWA) have in recent years produced a variety of National Environmental Policy Act (NEPA) analyses evaluating several actions, including Army force transformation efforts, the addition of Soldiers and new equipment, a general increased use of training lands, and range development projects throughout USARAK ranges. These documents have also identified many regulations, policies, management programs, and specific mitigation measures used to avoid, minimize and mitigate various adverse impacts to the affected environment at Fort Wainwright. The following documents (incorporated by reference) provide a synopsis of previous environmental analysis of USARAK Transformation, stationing actions, and evolution of day-to-day operations. These mitigation measures are ongoing and will continue as part of the baseline management employed by the Army in Alaska on Army-owned and controlled lands.

Transformation of U.S. Army Alaska Final EIS, May 2004. This document analyzes the impacts to USARAK lands and surrounding communities and land users associated with the transformation of the 172nd Infantry Brigade (Separate) at Fort Wainwright and Joint Base Elmendorf-Richardson (JBER) into the 1st Brigade, 25th Infantry Division Stryker Brigade Combat Team (1/25 SBCT). This environmental impact statement (EIS) will serve as a foundational reference source for this EIS, particularly in regards to JBER and Fort Wainwright.

The Battle Area Complex/Combined Arms Collective Training Facility (BAX/CACTF) Final EIS, June 2006. This document provides an environmental analysis of construction and operation of a combat training facility at Donnelly Training Area East (DTA-East). That EIS focuses on the existing environment at DTA-East and provides a comprehensive description of existing resources. The BAX/CACTF EIS (2006) will serve as a foundational reference source for this EIS, particularly in regards to DTA.

Conversion of the Airborne Task Force to an Airborne Brigade Combat Team (ABCT) Environmental Assessment (EA), 2006. This document analyzes the impacts associated with conversion of the existing airborne task force into the 4/25 ABCT at JBER.

Stationing and Training of Increased Aviation Assets within U.S. Army Alaska Final EIS, August 2009. That EIS analyzes the impact of stationing a task force-sized aviation unit at Fort Wainwright. In addition, the impacts of helicopter training on Army lands was evaluated,

including the identification of several mitigation measures to lessen the adverse impact on various resource areas.

Range Complex and Training Land Upgrades Programmatic EA, 2010. This programmatic document provides a management framework for range planners and ITAM coordinators to use when evaluating potential impacts to the environment. This EIS provides a comprehensive list of BMPs and SOPs for use when designing range or training land upgrades.

Environmental Assessment for Donnelly Training Area East Mobility and Maneuver Enhancements, Fort Wainwright, Alaska, 2008. This document analyzes the impacts associated with the expansion of the Donnelly Drop Zone (DZ), trail improvements and creation of a hardened bivouac to accommodate changing mission requirements at DTA.

U.S. Army Pacific Supplemental Programmatic EIS for Army Growth and Force Structure Realignment, 2008. This document evaluates the effects associated with growing and realigning the Army's force structure to support military operations in the Pacific Theater, including the addition of approximately 2,200 new Soldiers in Alaska.

USAG Alaska Grow the Army Force Structure Realignment EA, 2008. Tiering off the above EIS, this document evaluates the effects associated with facility construction and training actions to accommodate new military units to be stationed in Alaska. The EA analyzes site-specific facility and range construction as well as increased training that will be necessary to support incoming Soldiers and their Families.

The Integrated Natural Resource Management Plan (INRMP) 2007-2011 and 2007 INRMP EA, January 2007. These documents describe standard policies and procedures for managing natural resources to ensure sustainability of USARAK lands.

The Integrated Cultural Resource Management Plan (ICRMP), 2001. This document outlines treatment for and management of USARAK cultural resources.

ITAM Plan and ITAM EA, October 2005 and June 2005, respectively. These documents focus on managing sustainable use of training areas and provide recommended measures to achieve sustainability and rehabilitation of lands impacted by training.

Army Small Arms Training Range Environmental Best Management Practices, 2005. This document provides a manual of BMPs used on Small Arms Training Ranges.

Alaska Army Lands Withdrawal Renewal Final Legislative EIS, 1999. This document demonstrates the need for and examines the renewal of the existing military withdrawals of Fort Wainwright Yukon Training Area (YTA), Fort Greely West Training Area and Fort Greely East Training Area from public use for military purposes until November 6, 2051. Fort Greely West and East Training Areas have subsequently been renamed DTA-West and DTA-East training areas.

Range Upgrade/Expansion Projects for Fort Richardson, Alaska, Final Finding of No Significant Impact (FNSI) and EA, 2002. This document examines environmental impacts associated with upgrade and construction of two new ranges at JBER.

Range Upgrade/Expansion Projects for Fort Wainwright, Alaska, FNSI and EA, 2003. This document examines environmental impacts associated with upgrade of existing ranges and related facilities and the construction of new ranges at Fort Wainwright.

Department of Army Pamphlet (PAM) 350-38, *Standards in Training Commission*. This regulation establishes Army policy and responsibilities for the use and maintenance of training aids, devices, simulators, and simulations, including tactical engagement simulations, targets, targetry, combat training center and range instrumentation, and training-unique ammunition. In addition, this regulation sets forth the policies and procedures for the identification, approval, prioritization, development, and fielding of graphic training aids to support Army-wide requirements.

AR 385-63, *Range Safety*. This regulation prescribes Department of the Army Headquarters range safety policies and responsibilities for firing ammunition, lasers, guided missiles, and rockets and provides guidance for the application of risk management in range operations.

PAM 385-63, *Range Safety*. This pamphlet provides implementation guidance for the Army Range Safety Programs prescribed in AR 385-63. It provides standards and procedures for the safe firing of ammunition, demolitions, lasers, guided missiles, and rockets for training, target practice, and to the extent practicable, combat.

AR 385-64, *U.S. Army Explosives Safety Program*. This regulation prescribes Army safety policy, standards, responsibilities, and procedures for implementing and maintaining the U.S. Army Explosives Safety Program. It sets explosives safety standards to protect Soldiers, civilian employees, family members, contractors, the general public, and the environment.

PAM 385-64, *Ammunition and Explosives Safety Standards*. This pamphlet explains the Army's safety criteria and standards for operations involving ammunition and explosives prescribed by AR 385-64, for the Army and contractor operations on Government property.

United States Army Alaska Regulation 350-2, *Training*. This regulation provides procedures for planning, requesting, and operating ranges and training areas within USARAK. It mandates specific safety policies for munitions use as required by Army regulations. Highlights include the range safety certification program, environmental considerations, and guidelines for medical support, demolitions training, and laser operations. Specific chapters provide procedures for scheduling, ammunition handling, direct fire, indirect fire, special ranges, airspace, nonfiring ranges, and training areas.

Training Circular 25-8, *Training*. This circular provides guidance for developing and operating Army ranges. It is a working guide for trainers, range and mobilization planners, engineers, coordinators, and range project review boards at all levels of the Active Army, Army National Guard (ANG), and Army Reserve. It is the primary guide for installation and major Army command range development plans and for developing the Army Master Range Plan.

K.2 EXISTING MEASURES TO REDUCE IMPACTS (AIR FORCE)

Air Force Instruction (AFI) 32-7061, *Environmental Impact Analysis Process (EIAP)*, adopts 32 CFR 989, *Environmental Impact Analysis Process*, which describes the specific tasks and procedures for successfully achieving and maintaining compliance with NEPA and the Council on Environmental Quality (CEQ) for implementing NEPA. AFI 32-7064, *Integrated Natural Resources Management*, addresses the management of natural resources on Air Force properties to comply with Federal, state and local standards. This instruction provides a framework for documenting and maintaining Air Force natural resources management programs on its installations and ranges.

The Air Force has prepared several NEPA analyses in recent years for actions that expand Special Use Airspace (SUA), beddown operational and training units and aircraft (and associated mission operations), and construct of physical improvements at air bases in Alaska. Similar to the Army, these documents have identified many regulations, policies, management programs, and specific mitigation measures used to avoid, minimize and mitigate various adverse impacts to the affected environments. The documents summarized below (incorporated by reference) provide a synopsis of previous environmental analysis reflecting the evolution of mission requirements by Air Force units and day-to-day operations in Alaska. These mitigation measures are ongoing and will continue as part of the baseline management employed by the Air Force for existing SUAs that are included in the JPARC EIS area of operations. Actions undertaken by the Air Force that take place on Army lands in Alaska would incorporate the applicable existing mitigations and BMPs that govern the use of those specific lands.

Establish the Delta Military Operations Area (MOA) Complex EA. 2010. The Air Force proposed to improve required training for major flying exercises (MFEs) by charting the Delta MOA Complex. The proposed action established connecting airspace between other adjacent MOAs to provide a realistic setting for MFEs. The action provided contiguous airspace connecting MOAs to existing restricted airspace to better meet MFE training objectives.

Eielson Air Force Base (AFB) Infrastructure Development in Support of RED FLAG–Alaska EA. 2007. The Air Force proposed and implemented infrastructure improvements on Eielson AFB. The EA provided a framework and programmatic approach to planning, environmental documentation, and tracking to support infrastructure improvements to fulfill mission needs and those supporting the RED FLAG–Alaska MFE.

F-22 Beddown at Elmendorf AFB Alaska, EA/Finding of No Significant Impact (FONSI). 2006. The EA evaluated the beddown of two F-22A operational squadrons over a period of approximately 5 years. It assessed all aspects of the beddown, including sorties at the airfield and in regional military training airspace, construction of and renovations to facilities and infrastructure to support the F-22A Operational Wing, and personnel changes. The two F-22A squadrons replaced one squadron of F-15C and one squadron of F-15E aircraft designated to leave Elmendorf AFB. F-22A training operations were assessed to use MOAs, Air Traffic Control Assigned Airspace (ATCAA), Military Training Routes (MTRs), and ranges where F-15C and F-15E aircraft had trained.

Final Alaska MOA EIS. 1997. The Air Force prepared an EIS evaluating the potential environmental effects of restructuring and using SUA in Alaska for flight training and exercises.

The purpose of the proposed action was to restructure and upgrade several MOAs in Alaska. The proposed action was needed to ensure that military aircrews were able to receive comprehensive and realistic tactical flying training in the safest airspace possible.

C-17 Training Areas Final EA Elmendorf AFB, Alaska. November 2005. The EA considered C-17 training operations in military training airspace in Alaska. The project also includes upgrading Runway 07/25 at Allen Army Airfield (AAF), frequent use of the runway as a C-17 assault landing zone, frequent use of five existing DZs for C-17 training and C-17 operations in Delta MOA.

The FONSI for several of these EAs describe measures adopted to reduce impacts from these actions. Many of these apply to the MOAs and Air Force training operations that overlap with the Joint Pacific Alaska Range Complex (JPARC) EIS actions and areas of operations.

K.3 PROPOSED MITIGATIONS FOR JPARC EIS PROPOSALS

[Table K-1](#) and [Table K-2](#) present proposed mitigations for the six definitive proposals evaluated in the EIS. [Table K-1](#) presents proposed mitigations for the Air Force's Fox 3 and new Paxon MOA, RLOD, and NJT proposals. [Table K-2](#) presents the Army's proposed mitigations for the BAX, Expand R2205, and UAV corridor proposals. The decision document (or Record of Decision [ROD]) for this EIS will identify mitigations that would be adopted and implemented as part of the proposed actions. Decisionmakers will give serious consideration to adopting mitigations that allow implementation of the proposed actions without compromising their purpose and need.

Table K-1. Air Force – Proposed Mitigations

Benefitting Resource	Proposed Mitigation
Fox 3 MOA Expansion and New Paxon MOA	
Airspace Management Safety-Flight Land Use-Access	Special Use Airspace Information System Continue SUAIS in all areas where radio coverage exists; this includes a majority of the area beneath the proposed Fox 3 and Paxon MOAs. The SUAIS Letter of Agreement with the FAA will be updated to include current radio sites and any new MOAs to be covered by the system.
Biological Resources	Eagle and Migratory Bird Avoidance Limit minimum altitude to 1,000 feet AGL in the new Fox 3 and Paxon MOAs from 15 March to 30 September (nesting season) to comply with the Bald and Golden Eagle Protection Act (BGEPA). Subject to available funding, the AF may coordinate with the U.S. Fish and Wildlife Service (USFWS) to establish habitat models and/or conduct bald and golden eagle nest surveys to establish low flying (500 feet AGL) areas outside of eagle habitat during the nesting season (15 March to 30 September).
	Wildlife Avoidance Modify existing Letter of Agreement (LOA) with Alaska Department of Fish and Game (ADFG) to maintain avoidance areas over caribou and Dall sheep populations under the new MOAs during critical lifecycle periods. Coordination with wildlife agencies will continue to determine specifics including seasons and minimum overflight altitudes; location of herds is monitored/reported by ADFG.
Airspace Management Safety-Flight Biological Resources Land Use- Management, Access, Recreation Socioeconomics Subsistence	VFR Flight Corridors Expand the VFR flight corridor over the Richardson highway between Delta Junction and Glennallen to include the highway segment under the new Paxon MOA. The corridor will be 3 miles on either side of the Richardson highway and up to 4,500 feet MSL. (The MOA would go to 5,000 feet MSL in the corridor to allow a 500-foot buffer.) The Paxon Fish Hatchery would be afforded protection from low overflight noise as an added benefit of the VFR flight corridor.
Biological Res Land Use- Management, Recreation	National Wild and Scenic Rivers Protection For the period 15 May to 30 September, expand the Gulkana (west, middle, and north forks) and Delta NWSR (and others, as designated) Flight Avoidance Areas to include portions within new MOA boundaries using a 5-nautical mile buffer either side of the river centerline with 5,000 feet MSL minimum altitude. The river corridors will include their headwater lakes areas (Tangle Lakes and Dickey Lake).
Land Use- Management, Recreation Socioeconomics	Concentrated Activity Areas Comply with flight avoidance areas established by the 11th AF Airspace and Range Team and listed in the 11th AF Airspace Handbook. Areas not specified by the Record of Decision (ROD) may be added, increased, decreased, or removed by the 11th AF Airspace and Range team as situations dictate (e.g., a mine and its air operations cease to exist).

Table K-1. Air Force Proposed Mitigations (*continued*)

Benefitting Resource	Proposed Mitigation
Night Joint Training	
Airspace Management Safety-Flight Biological Resources Land Use-Management, Access, Recreation Socioeconomics Subsistence	<p>VFR Flight Corridors Expand the VFR flight corridor over the Richardson highway between Delta Junction and Glennallen to include the highway segment under the new Paxson MOA. The corridor will be 3 miles on either side of the Richardson highway and up to 4,500 feet MSL. (The MOA would go to 5,000 feet MSL in the corridor to allow a 500-foot buffer.)</p> <p>The Paxson Fish Hatchery would be afforded protection from low overflight noise as an added benefit of the VFR flight corridor.</p>
Biological Resources Land Use-Management	<p>National Wild and Scenic Rivers Protection For the period 15 May to 30 September, expand the Gulkana (west, middle, and north forks) and Delta NWSR (and others, as designated) Flight Avoidance Areas to include portions within new MOA boundaries using a 5-nautical mile buffer either side of the river centerline with 5,000 feet MSL minimum altitude. The river corridors will include their headwater lakes areas (Tangle Lakes and Dickey Lake).</p>
Land Use- Management, Recreation Socioeconomics	<p>Concentrated Activity Areas Comply with flight avoidance areas established by the 11th AF Airspace and Range Team and listed in the 11th AF Airspace Handbook. Areas not specified by the ROD may be added, increased, decreased, or removed by the 11th AF Airspace and Range team as situations dictate (e.g., a mine and its air operations cease to exist).</p>
Realistic Live Ordnance Delivery (Definitive)	
Land Use- Management, Access Socioeconomics	<p>State Land/Leasehold Avoidance Comply with Alaska Department of Natural Resources (ADNR) comments to avoid leasehold properties in the north and south corners of the proposed restricted area by adjusting the borders of the Alternative A airspace.</p>
Safety-Ground Land Use- Management	<p>ADNR Compliance Items Air Force will provide support to ADNR throughout the Special Use Designation (SUD) process. The Air Force will develop a Concept of Operation (CONOPS) and an Access and Safety Plan for the exclusive use of state land to support RLOD. The SUD will identify areas and dates of closure and will have to indicate which activities are affected. The Access Plan will provide the maximum public use to the ground evacuation areas, closing such areas for the minimum period of time necessary to conduct such operations. The Access Plan (updated annually) will identify areas and dates of closure and will indicate which activities are affected. It will describe roles and responsibilities for securing the area, ensuring it is evacuated, publishing and posting closure notices, signs and other media to advertise and alert public of the hazards, times, and locations.</p>
Physical Resources Water Resources	<p>Continued compliance with Army regulations on R2202 All applicable conservation, monitoring, and management procedures currently followed by USAG-FWA in the management of R-2202 will be applicable to the Proposed Action, including measures for the protection of soils and permafrost, including but not limited to, the Fort Wainwright Integrated Natural Resource Management Plan (INRMP) and Storm Water Pollution Prevention Plan (SWPPP) and the monitoring guidelines of the Integrated Training Area Management (ITAM) Sustainable Range Awareness.</p>

Key: 11th AF=11th Air Force; ADFG=Alaska Department of Fish and Game; ADNR= Alaska Department of Natural Resources; AGL=above ground level; BGEPA=Bald and Golden Eagle Protection Act; CONOPS=Concept of Operation; FAA=Federal Aviation Administration; INRMP=Integrated Natural Resources Management Plan; ITAM=Integrated Training Area Management; LOA=Letter of Agreement; MOA=Military Operations Area; MSL=mean sea level; NWSR=National Wild and Scenic River; RLOD=Realistic Live Ordnance Delivery; ROD=Record of Decision; SUAIS=Special Use Airspace Information System; SUD=Special Use Designation; SWPPP=Storm Water Pollution Prevention Plan; USFWS= U.S. Fish and Wildlife Service; VFR=Visual Flight Rules.

Table K-2. Army – Proposed Mitigations

Benefitting Resource	Proposed Mitigation
Battle Area Complex (BAX) Restricted Area (Definitive)	
Airspace	Pending the FAA’s study of the preferred airspace proposal alternatives to determine specific impacts and mitigation measures to be taken to minimize any impacts on VFR and IFR air traffic, other existing mitigations would continue to be relevant in addressing potential impacts of the airspace proposals.
Biological Resources	Maintain consultation with USFWS with regard to compliance with Bald and Golden Eagle Protection Act and Migratory Bird Treaty Act (MBTA). As required, conduct bald and golden eagle nest surveys in other areas where airspace modification would occur over previously unsurveyed areas. Coordinate the results with USFWS.
	Continue to monitor effects of military training including overflights on select wildlife species (especially herd animals, waterfowl, and raptors) and fisheries during critical seasons such as breeding, young-rearing, and migration. Use knowledge to develop and implement strategies to minimize disturbance to priority wildlife in existing and new SUAs and restricted airspace. This would help natural resources and range managers to coordinate training schedules that minimize impacts on wildlife populations.
	Continue pilot and soldier education awareness of sensitive wildlife species habitats and seasonal behaviors utilizing GIS mapping and discuss procedures to reduce disturbances and to increase safety by reducing potential for aircraft strikes.
	Continue effort to conduct a detailed study to assess the impacts and effects of noise on wildlife, particularly key species, such as caribou and bison during critical life cycle seasons. Use information to include protection requirements within a noise management plan.
Cultural Resources	Mitigations for impacts to cultural resources are established through National Historic Preservation Act (NHPA) Section 106 consultation pursuant to 36 CFR 800. In compliance with Section 106 of the NHPA, the Army has completed consultation with the Alaska SHPO and complied with all requirements for consultation with potentially affected Alaska Native tribes, ANCSA corporations, and Tribal government entities to identify historic properties that may be affected, including traditional cultural properties, and develop management actions and mitigation measures to resolve any adverse effects, if required. It has been determined that significant adverse impacts to cultural resources and Alaska Native tribes, ANCSA corporations, and Tribal government entities would not occur by the implementation of the BAX Restricted Area proposal.
	Mitigation measures include the amendment of the existing BAX Surface Danger Zone (SDZ) Programmatic Agreement to include the known and as yet undiscovered archaeological sites in the expanded BAX SDZ footprint.
	For ground disturbing actions that impact archaeological sites, historically mitigations have included retrieval of information through excavation of sites determined eligible for inclusion in the National Register of Historic Places (National Register) and impacted by range activities. For National Register-eligible sites destroyed by range activities, past mitigations have included excavation of another eligible site, comparable in size, age, composition and setting to the site to be destroyed. Other measures historically applied also have included development of public education materials to provide selected archaeological information retrieved from mitigation investigations of National Register-eligible sites.
	In accordance with AFI 32-7065, all NHPA Section 106 consultation has been completed. In the event that previously unrecorded or unevaluated cultural resources are encountered, the Army would manage these resources in accordance with the NHPA and other Federal and state laws, Air Force, and DoD regulations and instructions, and DoD American Indian and Alaska Native Policy.

Table K-2. Army – Proposed Mitigations (*continued*)

Benefitting Resource	Proposed Mitigation
Battle Area Complex (BAX) Restricted Area (Definitive) (<i>continued</i>)	
Hazardous Materials Biological Resources Water Resources	The Army may augment the effort for their existing program to identify possible munitions contamination at training areas on DTA-East. This program initiates the collection of baseline data to determine the location, extent, and potential migration of munitions contamination in soils, surface water, and groundwater. Based on these preliminary results, a long-term monitoring program could be developed to assess cumulative impacts to the withdrawal lands from ongoing military activities. These results could identify areas needing restoration, activities that pose the greatest environmental threat, and the potential mitigation measures to be implemented. Extensive and expedient investigations may be conducted in those areas considered exposure pathways, such as streams.
Land Use - Access	The Army will update information and maps available to the public on the USARTRAK website to identify changes in public access restrictions for the expanded Army training activities within USAG-FWA training areas.
Land Use Biological Resources	The Military will maintain an open dialogue with ADNRR, BLM, ADFG and USFWS to assess current conditions and needed adjustments in locations or temporal restrictions to avoidances and procedures put in place by the ROD for this EIS.
Land Use Safety - ground	The Army will expand enforcement to control trespass in DTA-East for the expanded operations.
Safety - Flight Safety	Maintain respective bird awareness programs to address potential bird and wildlife hazards that may exist.
Safety - Ground	Continue fire management mitigations in accordance with current Army and USARAK Regulations on the BAX.
Socioeconomics Airspace	Pursue manning and funding for any enhancements required to expand situational awareness for air traffic in and around training areas for general and military aviation. Complete an internal study to identify coverage gaps in new SUAs and restricted airspace. One possible alternative is the establishment of a U.S. Army Airspace Information Center.
Subsistence	Continue consultation efforts with subsistence parties to determine current subsistence use levels and areas on USAG-FWA lands as input into scheduling. Continue tribal consultation efforts with subsistence users about hunting and fishing programs on USAG-FWA land. Continue to use a newsletter to provide information to subsistence users about existing and new military activities and the changes in access for subsistence users. Continue research and cooperative studies with Tribes to address possible effects of Air Force and Army activities on subsistence resources both directly within USAG-FWA installation boundaries and those outlying resources that may also be affected by military activities on DTA-West, DTA-East, YTA, and TFTA.
Expand Restricted Area R-2205, including the Digital Multi-purpose Training Range (DMPTR) (Definitive)	
Airspace	Pending the FAA's study of the preferred airspace proposal alternatives to determine specific impacts and mitigation measures to be taken to minimize any impacts on VFR and IFR air traffic, other existing mitigations would continue to be relevant in addressing potential impacts of the airspace proposals.
Biological Resources	Continue to monitor effects of military training including overflights on select wildlife species (especially herd animals, waterfowl, and raptors) and fisheries during critical seasons such as breeding, young-rearing, and migration. Use knowledge to develop and implement strategies to minimize disturbance to priority wildlife in existing and new SUAs and restricted airspace. This would help natural resources and range managers to coordinate training schedules that minimize impacts on wildlife populations.
Biological Resources	Continue pilot and soldier education awareness of sensitive wildlife species habitats and seasonal behaviors utilizing mapping and discuss procedures to reduce disturbances and to increase safety by reducing potential for aircraft strikes.
Biological Resources	Continue effort to conduct a study to assess the impacts and effects on wildlife, particularly key species, such as caribou and bison during critical life cycle seasons. Use information to include protection requirements within a management plan.

Table K-2. Army – Proposed Mitigations (continued)

Benefitting Resource	Proposed Mitigation
Expand Restricted Area R-2205, including the Digital Multi-purpose Training Range (DMPTR) (Definitive) (continued)	
Cultural Resources	<p>Mitigations for impacts to cultural resources are established through NHPA Section 106 consultation pursuant to 36 CFR 800. In compliance with Section 106 of the NHPA the Army has completed consultation with the Alaska SHPO and complied with all requirements for consultation with potentially affected Alaska Native tribes, ANCSA corporations, and Tribal government entities to identify historic properties that may be affected, including traditional cultural properties, and develop management actions and mitigation measures to resolve any adverse effects, if required. It has been determined that significant adverse impacts to cultural resources and Alaska Native tribes, ANCSA corporations, and Tribal government entities would not occur by the implementation of the BAX Restricted Area proposal.</p> <p>In accordance with AFI 32-7065, all NHPA Section 106 consultation has been completed. In the event that previously unrecorded or unevaluated cultural resources are encountered, the Army would manage these resources in accordance with the NHPA and other Federal and state laws, Air Force, and DoD regulations and instructions, and DoD American Indian and Alaska Native Policy.</p>
Hazardous Materials Biological Resources	The Army may augment the effort for their existing program to identify possible munitions contamination at impact areas on YTA. This program initiates the collection of baseline data to determine the location, extent, and potential migration of munitions contamination in soils, surface water, and groundwater. Based on these preliminary results, a long-term monitoring program could be developed to assess cumulative impacts to the withdrawal lands from ongoing military activities. These results could identify areas needing restoration, activities that pose the greatest environmental threat, and the potential mitigation measures to be implemented. Extensive and expedient investigations may be conducted in those areas considered exposure pathways, such as streams.
Land Use Biological Resources	The Military will maintain an open dialogue with ADNDR and BLM to assess current conditions and needed adjustments in locations or temporal restrictions to avoidances and procedures put in place by the ROD for this EIS.
Land Use Safety - ground	The Army would expand enforcement to control trespass in YTA for the expanded R-2205 activities.
Safety - Flight Safety	Continue efforts to comply with the respective Service formal flight safety programs, outlined in directives/regulations with supplements, that dictate those aircrew responsibilities and practices aimed at operating all manned and unmanned aircraft safely in existing modified and new SUAs.
Subsistence	Continue consultation efforts with subsistence parties to determine current subsistence use levels and areas on USAG-FWA lands as input into scheduling. Continue tribal consultation efforts with subsistence users about hunting and fishing programs on USAG-FWA land. Continue to use a newsletter to provide information to subsistence users about existing and new military activities and the changes in access for subsistence users. Continue research and cooperative studies with Tribes to address possible effects of Air Force and Army activities on subsistence resources both directly within USAG-FWA installation boundaries and those outlying resources that may also be affected by military activities on DTA-West, DTA-East, YTA, and TFTA.
Unmanned Area Vehicle (UAV) (Definitive)	
Airspace	Pending the FAA's study of the preferred airspace proposal alternatives to determine specific impacts and mitigation measures to be taken to minimize any impacts on VFR and IFR air traffic, other existing mitigations would continue to be relevant in addressing potential impacts of the airspace proposals.
Safety	Conduct sandhill crane surveys during spring and fall migration periods.

Table K-2. Army – Proposed Mitigations (*continued*)

Benefitting Resource	Proposed Mitigation
Unmanned Area Vehicle (UAV) (Definitive) (<i>continued</i>)	
Safety - Flight Safety	Continue efforts to comply with the respective Service formal flight safety programs, outlined in directives/regulations with supplements, that dictate those aircrew responsibilities and practices aimed at operating all manned and unmanned aircraft safely in existing modified and new SUAs.
Subsistence	Continue consultation efforts with subsistence parties to determine current subsistence use levels and areas on USAG-FWA lands as input into scheduling. Continue tribal consultation efforts with subsistence users about hunting and fishing programs on USAG-FWA land. Continue to use a newsletter to provide information to subsistence users about existing and new military activities and the changes in access for subsistence users. Continue research and cooperative studies with Tribes to address possible effects of Air Force and Army activities on subsistence resources both directly within USAG-FWA installation boundaries and those outlying resources that may also be affected by military activities on DTA-West, DTA-East, YTA, and TFTA.

Key: ADFG=Alaska Department of Fish and Game; ADNDR=Alaska Department of Natural Resources; AFI=Air Force Instruction; ANCSA=Alaska Native Claims Settlement Act; BAX=Battle Area Complex; BLM=Bureau of Land Management; CFR=Code of Federal Regulations; DMPTR=Digital Multi-Purpose Training Range; DoD=U.S. Department of Defense; DTA=Donnelly Training Area; EIS=Environmental Impact Statement; FAA=Federal Aviation Administration; IFR= Instrument Flight Rules; MBTA=Migratory Bird Treaty Act; NHPA=National Historic Preservation Act; ROD=Record of Decision; SDZ=surface danger zone; SHPO=State Historic Preservation Officer; SUA=Special Use Airspace; TFTA=Tanana Flats Training Area; UAV=Unmanned Aerial Vehicle; USAG-FWA=U.S. Army Garrison Fort Wainwright, Alaska; USARAK=U.S. Army Alaska; USARTRAK=Army Recreational Tracking System; USFWS= U.S. Fish and Wildlife Service; VFR=Visual Flight Rules; YTA=Yukon Training Area.

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