Stationing and Training of Increased Aviation Assets within U.S. Army Alaska Environmental Impact Statement

Prepared for U.S. Army Alaska



August 2009



IN ENT OF

DEPARTMENT OF THE ARMY

UNITED STATES ARMY GARRISON FORT WAINWRIGHT

FINAL

ENVIRONMENTAL IMPACT STATEMENT

FOR THE

STATIONING AND TRAINING OF INCREASED AVIATION ASSETS WITHIN U.S. ARMY ALASKA

AUGUST 2009

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Approved by:

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Colonel, U.S. Army

Commanding



How to Read This Environmental Impact Statement

This Final Environmental Impact Statement (EIS) is organized into the following chapters and appendices:

- Summary of Changes Between the Draft EIS and Final EIS, summarizes key information that has changed in the EIS between the Draft and Final versions of the EIS.
- Executive Summary, highlights information about the purpose and need for the proposed action, the project location, description of the alternatives considered in the EIS, public outreach methods, environmental consequences of each alternative, and proposed mitigation measures.
- Chapter 1, Purpose and Need, presents the purpose of the Proposed Action; outlines Army requirements that drive and influence the need to station and train additional aviation assets in Alaska; and describes the scope of the EIS, the ultimate decision to be made, and public and agency coordination that influenced the EIS scope and analysis.
- Chapter 2, Description of the Proposed Action and Alternatives, describes the EIS study area, describes the Proposed Action, explains the criteria used to develop reasonable alternatives to the Proposed Action, presents the three alternatives considered in the EIS, and summarizes their consequences. The chapter also identifies alternatives that were considered but not analyzed and identifies the Army's Preferred Alternative.
- Chapter 3, Affected Environment, describes the priorities for environmental analysis
 based on the resources, ecosystems, and human communities of concern that could be
 affected by the Proposed Action, referred to as valued environmental components or
 VECs. VECs are characterized based on the potential for adverse impact. The baseline
 condition for each VEC, regardless of categorization, is presented.
- Chapter 4, Environmental and Socioeconomic Consequences, presents the significance criteria for impacts, and describes the direct, indirect, and cumulative impacts of implementing the three alternatives for each VEC with a potential for adverse impact. Impacts resulting from the stationing of aviation personnel and assets, facilities construction and demolition, and military training are presented for each alternative.
- Chapter 5, List of Preparers and Contributors, identifies the individuals who were primarily responsible for preparing this EIS, presents their qualifications, and indicates the EIS sections to which they contributed.
- Chapter 6, Final EIS Distribution List, presents the distribution list for this EIS.
- **Chapter 7, References**, lists the documents referenced in this EIS.
- Chapter 8, Agencies and Persons Contacted, lists the relevant entities contacted during preparation of this EIS.
- Chapter 9, Comments and Responses, includes the comments that were submitted for the Draft EIS and provides the Army's responses to those comments.

- Chapter 10, Index, provides a page number index to the first mention of key issues and topics covered in this EIS.
- Appendix A, Notice of Intent to Prepare an EIS and Notice of Availability of the Draft EIS, provides a copy of the Notice of Intent (NOI) to prepare an EIS as published in the Federal Register (FR) on April 4, 2007 (72 FR 16331) and a copy of the Army's Notice of Availability (NOA) for the Draft EIS as published in the FR on May 1, 2009 (74 FR 20291).
- Appendix B, Agency Correspondence, includes the public scoping agency mailing list and sample letter; notification letters sent to 11 federally recognized tribes; written comments received from agencies during the scoping period; the National Historic Preservation Act Section 106 consultation letter; and examples of letters sent to agencies and tribes to announce the availability of the Draft EIS and invitation to Draft EIS meetings.
- Appendix C, Finding of No Practicable Alternative, documents that there is no practicable alternative to constructing facilities at FWA other than within the 100-year floodplain, in accordance with Executive Order 11988 (Floodplain Management).
- Appendix D, Air Quality General Conformity Review, provides a general conformity review related to the State Implementation Plan (SIP), general conformity emission summaries, and potential-to-emit (PTE) calculations.
- Appendix E, Quick Look Questions and Responses, contains the Quick Look questions
 and responses used to determine which VECs are included in the direct, indirect, and
 cumulative effects analysis.
- Appendix F, Aviation Stationing Programmatic Agreement, formalizes mitigation commitments for cultural resources and outlines the responsibilities of the National Historic Preservation Act Section 106 consulting parties.

Page in Final EIS	Section	Changes Made
Throughout EIS	Executive Summary, Chapters 1-9 Appendixes A-F	Changed the discussion of this document to refer to the Final Environmental Impact Statement (EIS); references that remain that discuss the Draft EIS are specific to the version of the document that was made available to the public in May 2009
Throughout EIS	Executive Summary, Chapters 1-9 Appendixes A-F	Clarified text to explain Proposed Action involves augmentation of existing personnel and assets to form a new unit, as opposed to simply increasing current assets and personnel
Throughout EIS	Executive Summary, Chapters 1-9	Clarified text to explain that Alternative 2 is the Army's Preferred Alternative
How to Read This Environmental Impact Statement	How to Read This Environmental Impact Statement	Introductory material that explains how to read this EIS has been updated to reflect that this document is the Final EIS and the organization of the various chapters and appendixes has been updated to reflect the organization of the Final EIS
ES-2	Executive Summary	Clarified text to accurately describe the study area for the EIS as U.S. Army Alaska (USARAK) lands and installations in Alaska, and other lands and airspace in Alaska that could be affected by implementing the Proposed Action
ES-2	Executive Summary	Added text to further clarify that aviation training for the No Action Alternative would be at the levels equal to what occurred prior to the temporary assignment of the Aviation Task Force at Fort Wainwright (FWA)
ES-2	Executive Summary	Added text to clarify the increased use of airfields and airspace for Alternative 2
ES-2	Executive Summary	Added a statement in the discussion of Alternative 2 that it is the Army's Preferred Alternative
ES-3, ES-4	Executive Summary	Clarified text to include agency and tribal organizations in outreach efforts and modified text to include a summary of involvement for the Draft EIS
ES-3, ES-5	Executive Summary	Modified text to clarify flight activity for Alternative 3
ES-4	Executive Summary	Added a summary of the comments received during the public comment period
ES-5	Executive Summary	Clarified text to indicate that USARAK restricted airspace would be activated more frequently for training activities for both Alternatives 2 and 3
ES-6	Executive Summary	Clarified text regarding noise impacts for both Alternatives 2 and 3
ES-6	Executive Summary	Added information on the Programmatic Agreement and FWA's Standard Operating Procedure 12
ES-6	Executive Summary	Corrected a reference (changed to U.S. Department of Army Pamphlet 420-1-2 from U.S. Army Pamphlet 415-15)

Page in Final EIS	Section	Changes Made
ES-6, ES-7	Executive Summary	Added text regarding the pre-construction environmental surveys and the consultations required for contaminated sites
ES-7	Executive Summary	Added text stating that increased noise events are considered an adverse effect
ES-8	Executive Summary	Added statement that the Army is committed to continuing monitoring in areas where the presence of contamination is possible but has not been previously identified
ES-10	Executive Summary	Added and clarified text for wildlife mitigation measures
ES-9	Executive Summary	Modified text to clarify emissions would not exceed thresholds for National Ambient Air Quality Standards (NAAQS)
ES-10	Executive Summary	Modified text to clarify the potential housing shortage under Alternative 3
ES-10	Executive Summary	Removed language regarding additional barracks under Alternative 3
ES-10	Executive Summary	Added text to describe impacts to water quality from military training activities under Alternative 1
ES-11	Executive Summary	Added text to describe water quality and quantity conditions and compliance with related requirements for helicopter training exercises under Alternative 2 and Alternative 3
ES-12	Executive Summary	Added the net increase of impermeable areas at FWA for Alternatives 2 and 3
ES-12	Executive Summary	Added information on the receipt of two anticipated permits: the Multi-Sector General Permit (MSGP) and the municipal separate storm sewer system (MS4) permit
ES-12	Executive Summary	Added a mitigation measure that the Army will coordinate with regulatory agencies to implement additional measures, as deemed necessary, to address issuance of a total maximum daily load limit for the Chena River
ES-12	Executive Summary	Modified language to clarify conditions relating to subsistence and recreation
		Added a mitigation measure for education of Soldiers on Alaska Native cultural awareness and diversity, including use of resources for subsistence
ES-13	Executive Summary	Added statement that near Fort Wainwright and Eielson Air Force Base, noise reductions resulting from U.S. Air Force actions implementing base realignment and closure will offset increases in noise from increases in helicopter training under the Alternative 2
ES-13	Executive Summary	Modified text to reflect that Alternative 2 is the Army's Preferred Alternative

Page in Final EIS	Section	Changes Made
ES-12	Executive Summary	Added language that future construction would be conducted on contaminated sites and would require agency coordination and would result in increased construction schedules and costs
1-1	Chapter 1 1.1 Introduction	Removed sentence stating study area includes all military land in Alaska
1-13	Chapter 1 1.5 Decision to Be Made	Modified text to reflect Alternative 2 is the Army's Preferred Alternative
1-13, 1-14	Chapter 1 1.6 Interagency Coordination	Modified text to clarify the scoping and coordination process for agencies, including the process for agency involvement in review of the Draft EIS
1-14	Chapter 1 1.7 Government-to-Government	Updated text to discuss tribal involvement during review of the Draft EIS
	Consultation	Modified the end of the first paragraph to reflect that the Army has provided newsletter updates in 2007, 2008, and 2009
1-14, 1-15	Chapter 1 1.8 Public involvement	Clarified text about the overall public involvement process
	1.8.1 Overview of the Public Involvement Process	
1-16, 1-17	Chapter 1 1.8 Public involvement 1.8.3 Review of Draft EIS	Added text discussing distribution of the Draft EIS, publication of public notices, the public comment period, and comments received on the Draft EIS
2-1	Chapter 2 2.2 EIS Study Area	Clarified the description of the EIS study area
2-12	Chapter 2 2.3 Proposed Action 2.3.2 Aviation Assets	Modified sentence to clarify Kiowas temporarily stationed in Alaska would become permanent under the Proposed Action
2-51	Chapter 2 2.6 Alternatives Eliminated from Further Consideration	Text was modified to make clear that use of Hangars 2 and 3 was deemed not sufficient to meet the future asset storage and maintenance requirements of either the Aviation Task Force or
	the Combat Aviation Brigade	
2-55 through 2-62	Chapter 2 2.7 Comparison of Environmental Consequences by Alternative	Removed language that changes to the Records of Decision (RODs) for the hazardous waste sites could be required
	Table 2.7.a Summary of Environmental Impacts and Mitigation Measures	Revised text in Table 2.7.a to be consistent with mitigation measures listed for each resource in Chapter 4
2-63	Chapter 2 2.8 Identification of the Preferred Alternative	Added a section to the EIS to identify the Army's Preferred Alternative

Page in Final EIS	Section	Changes Made
3-6 through 3-8	Chapter 3	Removed statement that no documentation exists for the causes of fires that are started by military
	3.1. Introduction	activities
	3.1.2 Other Areas of Focus	Text revised to accurately describe the fuelbreak
	3.1.2.4 Fire Management	projects referenced
		The term "fire break" was changed to "fuelbreak"
3-9	Chapter 3	Added text stating that the Army will continue to adhere to the procedures in the Forest and
	3.1. Introduction	Wildfire Management Plan
	3.1.2 Other Areas of Focus	
	3.1.2.4 Fire Management	
3-15	Chapter 3	Added a discussion of the Army's education
	3.1 Introduction	program for new Soldiers to increase awareness of Alaska Native cultures, property ownership
	3.1.2 Other Areas of Focus	issues, and subsistence-user resources
	3.1.2.8 Environmental Justice	
3-21	Chapter 3	Figure modified to show correct restricted areas
	Figure 3.2.b	
3-25	Chapter 3	Corrected restricted airspace location from
	3.2 Airspace Management	R-2203G to R-2203C
	3.2.3 Affected Environment for Airspace Management	
	3.2.3.2 Fort Richardson	
3-30	Chapter 3	Text revised to explain that certain properties less
	3.3 Cultural and Visual Resources	than 50 years old can be listed on the National Register of Historic Places if they possess
	3.3.1 Introduction	exceptional importance
	3.3.1.2 National Register of Historic Places	
3-87	Chapter 3	Language was added to note that the Army works
	3.6 Wildlife and Fisheries	with State and federal wildlife agencies under the existing Memorandum of Understanding
	3.6.1 Introduction	oxiding Memorandam of Oridordianding
3-92	Chapter 3	Added language to explain that the Alaska
	3.6 Wildlife and Fisheries	Department of Fish and Game conducts surveys of the Delta bison and Delta caribou herds with
	3.6.1 Introduction	support from USARAK
	3.6.1.2 Wildlife Special Interest Areas	
	3.6.1.2.2 Donnelly Training Area	
3-95	Chapter 3	Added language to explain that the Alaska
	3.6 Wildlife and Fisheries	Department of Fish and Game conducts moose surveys during the winter and calving season with
	3.6.3 Affected Environment for Wildlife	funding support from USARAK
	3.6.3.1 Fort Wainwright	
	3.6.3.1.1 Mammals	

Page in Final EIS	Section	Changes Made
3-97. 3-99	Chapter 3 3.6 Wildlife and Fisheries	A description of Creamer's Field Migratory Waterfowl Refuge was added
	3.6.3 Affected Environment for Wildlife	Added a statement that boreal owls and rusty blackbirds were heard during surveys on YTA and Townsend's warblers were heard during surveys on the TFTA
		Language was added to explain that sharp-tailed grouse leks are located on Texas Range with one of the largest known lek sites in Alaska occurring near Sally Drop Zone
		Revised text to state that boreal owls nested at Bolio Lake on the DTA in 2008 and 2009
3-111, 3-112	Chapter 3	Removed text stating that the attainment
	3.7 Air Quality	demonstration plan would need to be submitted to the U.S. Environmental Protect Agency (EPA) by
	3.7.3 Affected Environment for Air	2012
	Quality	Removed text stating that Fairbanks will need to
	3.7.3.1 Fairbanks North Star Borough (FWA and Eielson AFB) Air Quality Region	achieve attainment for PM _{2.5} by April 2014
		Added information about Fairbanks North Star Borough's efforts to reach attainment with the fir
	3.7.3.1.2 Fairbanks PM _{2.5} Designation	particulate standard
3-126 through 3-130	Chapter 3	Added text that Alaska Department of
	3.10 Water Resources	Environmental Conservation expects to complete a total maximum daily load for the Chena River in
	3.10.3. Affected Environment for Water Resources	2010
	3.10.3.1 Fort Wainwright	Added text to explain that FWA is regulated as a small municipal separate storm sewer system (MS4) and that issuance of both a Multi-Sector General Permit (MSGP) and an MS4 permit is pending
4-23	Chapter 4	Updated section to include discussion of the
	4.3 Cultural and Visual Resources	Programmatic Agreement between the Army and the Section 106 consulting parties, and added a reference to new Appendix F
4-53	Chapter 4	Added language regarding procedures to be
	4.3 Cultural and Visual Resources	implemented during inadvertent discoveries of archaeological remains
	4.3.3 Mitigation for Adverse Effects to Historic Resources	aronacciogical remaine
	4.3.3.6 Mitigation Measures for Inadvertent Discoveries of Cultural Resources During Construction	

Page in Final EIS	Section	Changes Made
4-64 through 4-72	Chapter 4 4.5 Hazardous Materials/Hazardous Waste	Revised text to specify that contaminated soil would be removed and properly disposed in accordance with the appropriate State and federal regulations
	4.5.2 Environmental Consequences for Hazardous Materials/Hazardous Waste	Discussion of standard operating procedure and GIS-based tracking system for land and use
	4.5.2.2 Alternative 2: Aviation Task Force	restrictions and the requirement for a Work Authorization Permit for all intrusive activities was
	4.5.2.2.3 Facilities Construction and Demolition	added; summaries of the results of the pre- construction environmental survey conducted for the components of the Proposed Action were added
4-78	Chapter 4	Added language that the Army is committed to
	4.5 Hazardous Materials/Hazardous Waste	continuing monitoring in areas where the presence of contamination is possible but has not been previously identified
	4.5.3 Mitigation	The sentence regarding changes to RODs for hazardous waste sites was deleted; language was added to describe that through coordination with involved agencies, funding requests for cleanup of contaminants and commitments for continued (or increased) environmental monitoring can be accomplished in accordance with the Federal Facilities Agreement
4-84, 4-88	Chapter 4	Added information regarding monitoring of moose
	4.6 Wildlife	populations over the last few years (during temporary stationing of the Aviation Task Force)
	4.6.2 Environmental Consequences for Wildlife	Revised language to state that the Army will continue to implement current restrictions to bison
	4.6.2.2 Alternative 2: Aviation Task Force	·
	4.6.2.2.4 Military Training	
4-97	Chapter 4	Added information regarding monitoring of moose
	4.6 Wildlife and Fisheries	populations over the last few years (during temporary stationing of the Aviation Task Force)
	4.6.2 Environmental Consequences for Wildlife	J
	4.6.2.3 Alternative 3: Combat Aviation Brigade	
	4.6.2.3.4 Military Training	
4-103	Chapter 4	Removed subheadings
	4.6 Wildlife and Fisheries	
	4.6.3 Mitigation	
4-103	Chapter 4	Revised language to state that some individual
	4.6 Wildlife and Fisheries	animals would experience "adverse effects," not "significant adverse effects"
	4.6.3 Mitigation	Clarified and added mitigation measures

Page in Final EIS	Section	Changes Made
4-104	Chapter 4	Removed third significance criterion
	4.7 Air Quality	
	4.7.1 Significance Criteria	
	Table 4.7.a Air Quality Significance Criteria	
4-106, 4-110, 4-114	Chapter 4	Changed values in tables to be accurate and
	4.7 Air Quality	consistent with Appendix D
	4.7.1 Significance Criteria	
	Table 4.7.b Potential Emissions from Worst-Case Scenario in Tons per Year, Alternative 3	
	Table 4.7.f Emissions from Helicopter Training in Tons per Year, Alternative 2	
	Table 4.7.j Emissions from Helicopter Training in Tons per Year, Alternative 3	
4-114	Chapter 4	Removed third significance criterion
	4.7 Air Quality	
	4.7.1 Significance Criteria	
	Table 4.7.k Comparative Summary of Impacts by Alternative for Air Quality	
4-114, 4-115	Chapter 4	Modified this section to be consistent with a global
	4.7 Air Quality	perspective and other recent Army analysis for similar actions
4.7.2 Environmental Consequences for Air Quality		
	4.7.2.5 Greenhouse Gas Emissions	
4-134	Chapter 4	Added text describing requirements for
	4.10 Water Resources	compliance with Section 72.600 of Title 18 of the Alaska Administrative Code, compliance with the
	4.10.2 Environmental Consequences for Water Resources	National Pollutant Discharge Elimination System General Permit for Storm Water Discharges from Construction Activities, and development and implementation of a construction Storm Water Pollution Prevention Plan

Page in Final EIS	Section	Changes Made
4-136, 4-137, 4-138	Chapter 4	Added the size of impervious surfaces that would result from construction projects
	4.10 Water Resources	· •
	4.10.2 Environmental Consequences for Water Resources	Added information addressing the increase in impervious surfaces, including implementation of measures to reduce impacts, such as:
	4.10.2.2 Alternative 2: Aviation Task Force	Added reference to compliance with USARAK Pamphlet 200-1 and FWA's plan to publish
	4.10.2.2.3 Facilities Construction and Demolition	Guidance for Construction Activity Manual in April 2010
		 Added language for specific BMPs, such as use of drip pans and oil-water separators as well as cleanup of accidental spills according to USARAK Pamphlet 200-1, Hazardous Materials and Regulated Waste Management
		Deleted statement that vegetation clearing is expected to be minimal due to siting in previously disturbed or paved areas
4-140	Chapter 4	Added the size of impervious surfaces that would
	4.10 Water Resources	result from construction projects
	4.10.2 Environmental Consequences for Water Resources	Added information addressing the increase in impervious surfaces including implementation of measures to reduce impacts
	4.10.2.3 Alternative 3: Combat Aviation Brigade	
	4.10.2.3.3 Facilities Construction and Demolition	
4-141	Chapter 4	Modified sentence to clarify that implementation of
	4.10 Water Resources	permit requirements and associated storm water pollution plans and permit requirements would
	4.10.3 Mitigation	reduce the potential for sedimentation and the potential release and transport of contaminants to water resources; added mitigation measures
4-147	Chapter 4	A bullet was deleted from the list of existing best
	4.11 Subsistence and Recreation	management practices that the Army will continue to implement (regarding subsistence regulations
	4.11.3 Mitigation	for game management units) because this item refers to federal and State subsistence regulations that are established annually and are not considered best management practices adopted by the Army

Page in Final EIS	Section	Changes Made
4-151, 4-152	Chapter 4 4.12 Cumulative Effects Analysis Table 4.12.a Resources Considered but not Analyzed in Detail According to Quick Look Questions	Removed language that the attainment demonstration plan would be submitted to the EPA by 2012 Revised language to explain that compliance with storm water discharge permits (and SWPPPs and BMPs) during construction and operation would prevent pollutant discharges into the Chena River; also added language that because all new development (including that by others) must include measures for water protection or treatment, or both, degradation of water quality in the impaired section of the Chena River could be halted or improved
		Added text to describe new planned fuelbreak projects to reduce fire risks
4-156, 4-157	Chapter 4 4.12 Cumulative Effects Analysis 4.12.4 Cumulative Impact Assessment 4.12.4.1 Airspace Management	Clarified the cumulative effect between the Army's Proposed Action and the Delta Temporary Military Operating Area (TMOA)
4-163	Chapter 4 4.12 Cumulative Effects Analysis 4.12.4 Cumulative Impact Assessment 4.12.4.4 Hazardous Materials/Hazardous Waste	Revised language to state that military construction needed at FWA is anticipated to require coordination with the EPA and State of Alaska; removed statement that RODs for hazardous waste sites may need to be updated
4-167	Chapter 4 4.12 Cumulative Effects Analysis 4.12.4 Cumulative Impact Assessment 4.12.4.5 Wildlife and Fisheries	Revised language to state that the Army will continue to implement current restrictions to bison
6-1 through 6-10	Chapter 6	Updated distribution list to include individuals who requested and will receive an electronic copy of the Final EIS
8-1	Chapter 8	Added a paragraph that introduces the list of agencies and persons contacted during the development of the Draft EIS and explains how this chapter differs from Chapter 6
9-1	Chapter 9	Updated the chapter to reflect the Army's responses to public comments received on the Draft EIS
Appendix A	Appendix A	The appendix has been updated to include a copy of the Draft EIS notice of availability, and the title of the appendix has been changed to reflect the additional content

Page in Final EIS	Section	Changes Made
Appendix B	Appendix B	The bulleted list in the introduction to Appendix B has been revised to indicate that the appendix includes the National Historic Preservation Act Section 106 consultation letter and also example letters sent to agency and tribal representatives announcing the availability of the Draft EIS and invitations to meetings to provide information about the Draft EIS and accept comments
Appendix D	Appendix D	Included the assumptions and a calculation summary used to support the air quality analysis in the EIS; revised helicopter emissions calculations to be consistent with helicopter operations by helicopter type and by location as presented in the main text of the EIS; the revised calculations do not change the conclusions in the EIS for air quality analysis
Appendix E	Appendix E Table E-3 Fire Management Quick Look Questions	The definition of "proposed areas" was revised to include ranges or impact areas where fire risks are higher (see Question 8)
		A description of projects proposed to reduce fire risks was added to the answer to Question 9
Appendix E	Appendix E	Removed the date stating that the attainment
	Table E-10 Air Quality Quick Look Questions	demonstration plan would be submitted to the EPA by 2012
Appendix E	Appendix E	Added language regarding implementation of
Management Quick Look Questions General Permit construction and Industrial Activiting Pollution Prevention Pr	National Pollutant Discharge Elimination System General Permit for Storm Water Discharges during construction and Multi-Sector General Permit for Industrial Activities and related Storm Water Pollution Prevention Plans and best management practices	
		Added statement regarding expected completion of a pollutant wasteload allocation for the Chena River in 2010 to the answer to Question 16
Appendix F	Appendix F	Added a new Appendix F for the Final EIS, which is the draft Programmatic Agreement between the Section 106 consulting parties