

Appendix L
Agency and Government Correspondence

TABLE OF CONTENTS

	<u>Page</u>
APPENDIX L AGENCY AND GOVERNMENT CORRESPONDENCE.....	L-1
L.1 Cooperating Agency Correspondence.....	L-1
L.2 Government-to-Government Consultation.....	L-14
L.2.1 Government-to-Government Consultation Follow-up Letter and Minutes.....	L-14
L.2.2 Initial Alaska Native Government-to-Government Consultation Letter with Enclosure and Mailing List.....	L-21
L.2.3 Alaska Native Government-to-Government Section 106 Consultation Notification Letters.....	L-39
L.3 ESA Consultation.....	L-58
L.3.1 U.S. Fish and Wildlife Service	L-58
L.3.2 State of Alaska Department of Fish and Game.....	L-63
L.4 SHPO Consultation	L-67
L.5 Other Federal Agencies.....	L-147
L.5.1 Department of Interior, Bureau of Land Management.....	L-147

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APPENDIX L AGENCY AND GOVERNMENT CORRESPONDENCE

L.1 COOPERATING AGENCY CORRESPONDENCE



DEPARTMENT OF THE AIR FORCE
WASHINGTON DC

OFFICE OF THE ASSISTANT SECRETARY

FEB 16 2011

SAF/IEI
1665 Air Force Pentagon
Washington, DC 20330-1665

Ms. Elizabeth L. Ray
Director, Airspace Services
Mission Support Services
Federal Aviation Administration
800 Independence Ave., SW, Suite 400 East
Washington, DC 20591

Dear Ms. Ray:

The Air Force and the Army jointly request your formal participation in the preparation of an Environmental Impact Statement (EIS) for the Joint Pacific Alaska Range Complex (JPARC) as prescribed in the President's Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) Regulations, 40 CFR § 1501.6 *Cooperating Agencies*.

As the lead agencies for the JPARC EIS, the Air Force and the Army request you participate in various portions of the EIS development as may be required. Specifically the Air Force and the Army ask for your support as a Cooperating Agency by:

- a. Participating in the scoping process
- b. Assuming responsibility, upon request by the Army and Air Force, for developing information and preparing analyses on issues for which you have special expertise
- c. Making staff available for interdisciplinary reviews

To avoid unnecessary delays in the NEPA process, the Air Force and the Army will provide appropriate information and related materials in a timely fashion to enable your agency to complete its review and respond promptly. Should you or your staff have any questions regarding this letter, our point of contact is Mr. Jamie Spell, Alaskan Command, Staff Engineer, (907) 552-1695.

Sincerely,


KATHLEEN I. FERGUSON, P.E.
Deputy Assistant Secretary of the Air Force
(Installations)

cc:
SAF/IEE
SAF/GCN
HQ USAF/A7C
HQ USAF/A3O
HQ PACAF/A7PI
ALCOM/J42



Federal Aviation Administration

Memorandum

Date: March 4, 2011
To: John Warner, Group Manager, Operations Support Group, AJV-W
From: 
Kent D. Peterson, Alaska District Manager, TWA-A11
Subject: JPARC Response for the Anchorage Terminal Airspace

After completing an initial review of the Joint Pacific Alaska Range Complex Proposal, the Alaska District has determined there are four concerns within the Fairbanks Terminal Airspace and one concern within the Anchorage Terminal Airspace.

Fairbanks

Proposal 2: Realistic Live Ordinance Delivery

Alternative A, B and C will have an impact on the ability of Fairbanks ATCT and Anchorage ARTCC controllers to use the Charlie arrival and departure gate. Of the three, proposal A may allow use of this gate but would require review of the procedures to ensure that aircraft do not encroach on the proposed expansion of R-2202 B, C, and D. Proposals B and C would eliminate the use of this gate during active times of R-2202/R-2211.

Proposal 3: Joint Combined Arms Live Fire (JCALF)

The expansion of the Yukon Training Area would release airspace north of Eielson AFB, clockwise to the southeast of Eielson. This would be an expansion of R-2205 and would have an impact on departures at Eielson. Current procedures would not be separated from the proposed area. Reroutes of Eielson traffic to avoid this area would impact a significant part of VFR/IFR traffic working in and around the Fairbanks, North Pole and Ladd Army Airfield.

Proposal 4: Night Joint Training

Currently, Anchorage ARTCC controls the Fairbanks Airspace between 2300L and 0600L, daily. In the event the night joint training was approved, an evaluation of which air traffic facility (Fairbanks Airport Traffic Control Tower or Anchorage Air Route Traffic Control Center) could provide the best service would need to be accomplished.

Proposal 5: Remotely Piloted Aircraft (RPA)/Unmanned Aerial Vehicle (UAV) Access

All of the corridors require separation from these areas and would require further mapping so controllers can ensure separation is maintained. Corridor A, C and F are proposed to be eight nautical miles wide from 3000 feet AGL to 17,999 MSL. These would restrict the ability to use T-232, V-444 and J-502/J-515. Additionally, corridor A is in an area of very high VFR/IFR training area for the Fairbanks ATCT airspace. This would impact the ability and options for controllers when conducting these operations. Corridor B is proposed to be five nautical miles wide from 1000 feet AGL to 5000 feet AGL. This would impact arrivals and departures at both Ladd Army Airfield and Eielson Air Force Base. Chena Beacon is the missed approach fix for Fairbanks and would be impacted by the implementation of this corridor. Corridors A and B would impact IFR operations in and out of the Fairbanks airspace as well as Ladd Army Airfield. All of these corridors effectively establish a wall that restricts non-participating aircraft from operating during times of activation. Depending on the separation requirement, the protected airspace may result in a much larger impact than described.

Corridor D would restrict the use of Charlie departure and arrival gate between Fairbanks ATCT and Anchorage ARTCC.

Although corridor G is well outside of Fairbanks ATCT airspace, it may impact the ability of aircraft to use T-232 and V-444.

Anchorage

Proposal 1: Fox 3 Military Operations Area (MOA) Expansion and New Paxon MOA

The close proximity of the proposed Fox 5 and 6 Military Operating Areas (MOA) to Anchorage Terminal Radar Approach Control's (A11) airspace will require new or modified transfer procedures between Anchorage ARTCC (ZAN) and A11. Being only 10.5NM north of A11's airspace, the proposed airspace may lead to some impact or changes for the military flyers in regards to recovery routes, airspace delays, and/or entry and exit fix modifications.

A further analysis will be required to determine the exact impacts of the JPARC Proposal. If you have any questions, please contact myself at 907-271-2701, Don Schrader (Fairbanks) 907-474-0050, or David Chilson (Anchorage) at 271-2710.



U.S. Department
of Transportation
**Federal Aviation
Administration**

MAR 10 2011

Kathleen I. Ferguson, P.E.
Deputy Assistant Secretary of the Air Force (Installations)
SAF/IEI
1665 Air Force Pentagon
Washington, DC 20330-1665

Dear Ms. Ferguson:

Thank you for your letter requesting the Federal Aviation Administration participate as a cooperating agency in the environmental impact statement (EIS) for the proposed Joint Pacific Alaska Range Complex (JPARC).

The FAA is pleased to participate in the EIS process in accordance with the National Environmental Policy Act of 1969 as amended, and its implementing regulations. Since the proposal involves special use airspace (SUA), the FAA will cooperate following the guidelines described in the Memorandum of Understanding between the FAA and the Department of Defense Concerning SUA Environmental Actions, dated October 4, 2005.

Modification of the SUA resides under the jurisdiction of the Western Service Center, Operations Support Group, Renton, WA. The Western Service Center will be the primary focal point for matters related to both airspace and environmental matters. Mr. John Warner is the Manager of the Operations Support Group. FAA Order 7400.2, Chapter 32 indicates the airspace and environmental processes should be conducted in tandem as much as possible; however, they are separate processes. Approval of either the aeronautical process or the environmental process does not automatically indicate approval of the entire proposal. I have enclosed Appendix 2, 3, and 4 of FAA Order 7400.2 for additional details.

A copy of the incoming correspondence and this response is being forwarded to Mr. Warner of the Western Service Center, Operations Support Group. Mr. Warner can be contacted at (425) 203-4500 for further processing of your proposal.

Sincerely,

A handwritten signature in black ink that reads "Dennis E. Roberts".

Dennis E. Roberts
Director, Airspace Services
Air Traffic Organization

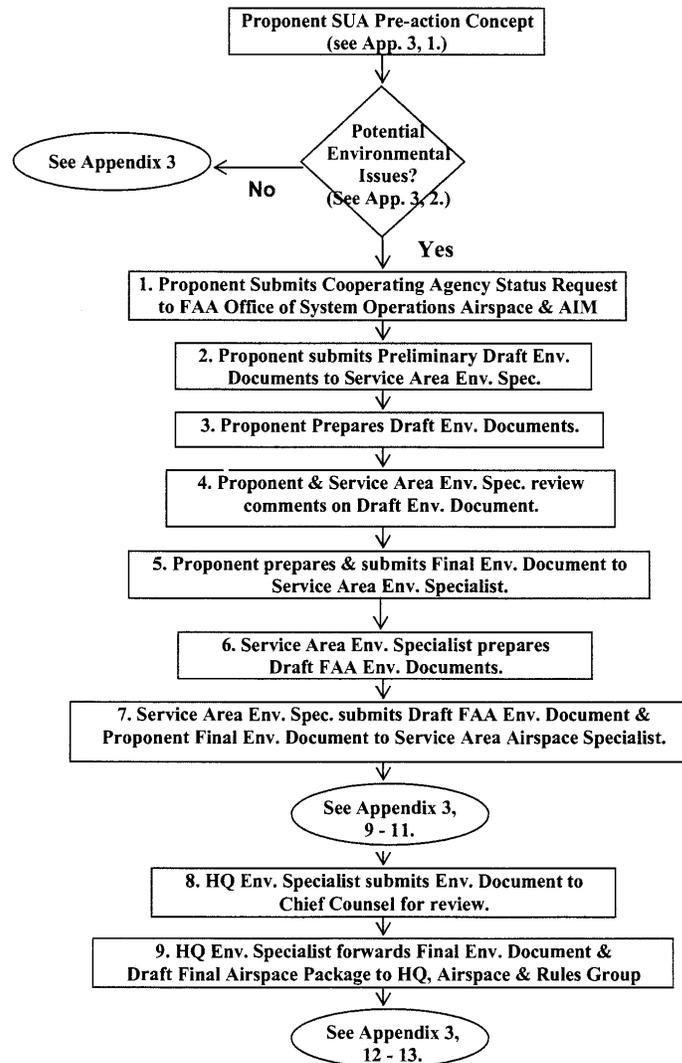
3 Enclosures

4/10/08

JO 7400.2G

Appendix 2. Procedures For Processing SUA Actions Environmental Process Flow Chart

(This Chart is for use with Appendix 4 and the numbers correlate to the numbers
in the Environmental column of that table.)



Procedures for Processing SUA Actions Environmental Process Flow Chart

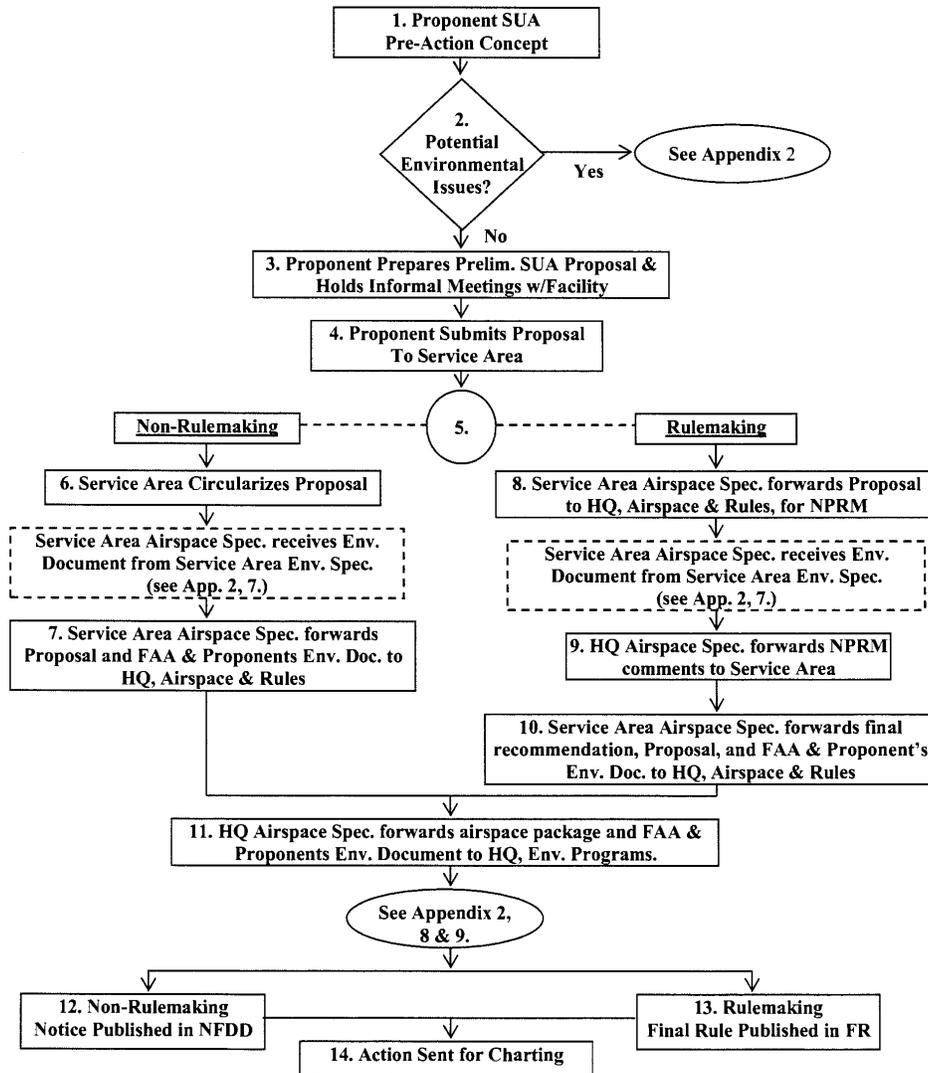
Appendix 2-1

4/10/08

JO 7400.2G

Appendix 3. Procedures For Processing SUA Actions Aeronautical Process Flow Chart

(This Appendix is for use with Appendix 4 and the numbers correlate to the numbers in the Aeronautical column of that table.)



Procedures for Processing SUA Actions Aeronautical Process Flow Chart

Appendix 3-1

4/10/08

JO 7400.2G

Appendix 4. FAA Procedures for Processing SUA Actions Aeronautical and Environmental Summary Table

(The aeronautical and environmental processes may not always occur in parallel.)
 (This Appendix is for use with Appendix 2 and Appendix 3, and the numbers correlate to numbers on those charts.)

(See note below.)

AERONAUTICAL	ENVIRONMENTAL
1. Proponent shall present to the Facility a Pre-draft concept (i.e., new/ revisions to SUA needed or required).	1. Proponent shall discuss with the Service Area, at the earliest time, the potential for environmental impacts associated with the proposal.
	2. If there is the potential for environmental impacts, Proponent shall make a request to the FAA for a Cooperating Agency (CA) status when Proponent decides to initiate the environmental process. Proponent shall forward the request to the Director of the System Operations Airspace and AIM. The Director will transmit the request to the Environmental Programs Group who prepares and forwards the response to Proponent. The Environmental Programs Group will send a courtesy copy of the response to the responsible Service Area. The Service Area environmental specialist works as the FAA point of contact throughout the process in development of any required environmental documentation.
	3. Proponent submits a Preliminary Draft EA or EIS to the Service Area environmental specialist. The Service Area environmental specialist shall provide comments, in consultation with the airspace specialist and the Environmental Programs Group, back to Proponent.

JO 7400.2G

4/10/08

<p>2. Proponent forwards the aeronautical proposal to the FAA Service Area for review and processing by the airspace specialist.</p>	<p>4. Proponent prepares a Draft EA or EIS with a 45-day public comment period. As the FAA CA point of contact, the Service Area environmental specialist reviews the associated draft environmental documentation to ensure that the Proponent addressed adequately all environmental concerns submitted on the Preliminary Draft. If required, the Service Area environmental specialist forwards the draft environmental documentation to the Environmental Programs Group for review and comment by the headquarters environmental specialist and the Office of Chief Counsel.</p>
<p>3. The Service Area airspace specialist, in accordance with this order, determines the type of airspace action(s) necessary, either Non-Rulemaking or Rulemaking. FAA Service Area and Proponent determine if informal Airspace Meetings are required.</p>	
<p>For Non-Rulemaking:</p>	
<p>4. The Service Area airspace specialist sends out a circularization with a 45-day public comment period. The Service Area airspace specialist reviews and prepares, in consultation with the Proponent, responses to the aeronautical comments from the study and circularization in accordance with Chapter 21 of this order.</p>	<p>5. The Proponent reviews comments received on their Draft EA/FONSI or EIS and prepares their responses to the comments, in consultation with the FAA and other cooperating agencies, if necessary, and in accordance with Chapter 32 of this order.</p>
	<p>6. Proponent prepares and submits their Final EA/FONSI or EIS/ROD to the Service Area environmental specialist.</p>
	<p>7. The Service Area environmental specialist prepares a Draft FAA FONSI/ROD or Draft FAA Adoption Document/ROD.</p>
	<p>8. The Service Area environmental specialist submits the Draft FAA FONSI/ROD or Draft FAA Adoption Document/ROD and the Proponent's Final EA/FONSI or EIS/ROD to the Service Area airspace specialist for inclusion with the airspace proposal package.</p>
<p>5. The Service Area airspace specialist then sends the completed package containing the aeronautical proposal, response to comments, Proponent's Final EA/FONSI, and the Draft FAA FONSI/ROD to the Headquarters Airspace and Rules Group with their recommendation.</p>	

Appendix 4-2 FAA Procedures for Processing SUA Actions Aeronautical and Environmental Summary Table

4/10/08

JO 7400.2G

For Rulemaking:	
<p>6. The Service Area airspace specialist sends the proposal to the Airspace and Rules Group who prepares a Notice of Proposed Rulemaking (NPRM). The Headquarters Airspace and Rules Group submits the NPRM for publication in the Federal Register with a 45-day comment period in accordance with Chapter 2 of this order.</p>	
<p>7. The Headquarters airspace specialist sends comments received on the NPRM to the Service Area airspace specialist for resolution.</p>	
<p>8. The Service Area airspace specialist then sends the completed package containing the response to comments, final service area recommendation, the proposal, Proponent's Final EA/FONSI or EIS/ROD, and the Draft FAA FONSI/ROD or Draft FAA Adoption Document/ROD to the Headquarters Airspace and Rules Group for preparation of the Final Rule.</p>	
<p>9. The Headquarters airspace specialist forwards the draft final rule package or draft non-rulemaking case summary (NRCS) with all supporting documentation to the Headquarters Environmental Programs Group for review (after all aeronautical comments have been resolved).</p>	<p>9. The Headquarters environmental specialist reviews the package for environmental technical accuracy; then submits the environmental documentation to the Office of the Chief Counsel, Airports and Environmental Law Division, for legal sufficiency review (having collaborated throughout the process).</p>
	<p>10. The Chief Counsel's environmental attorney's comments are incorporated into the final FAA environmental decision and signed by Headquarters Environmental Programs Group Manager.</p> <p>The package is then returned to the Headquarters Airspace and Rules Group.</p>
<p>10. For Non-rulemaking: The non-rulemaking action is published in the National Flight Data Digest.</p> <p>11. For Rulemaking: The Final Rule is published in the Federal Register. The Final Rule will contain a reference to the decision rendered and location of documentation for the associated environmental process.</p>	

JO 7400.2G

4/10/08

Consult the following documents throughout the process for further information:

- Council on Environmental Quality Regulations for Implementing the National Environmental Policy Act (NEPA), 40 CFR Parts 1500-1508
- FAA Order 1050.1E, "Environmental Impacts: Policies and Procedures"
- FAA Order 7400.2, "Procedures for Handling Airspace Matters," Part 5
- FAA Order 7400.2, Chapter 32, "Environmental Matters" and the associated appendixes (for specific SUA environmental direction)

NOTE: The time periods below are for a non-controversial aeronautical proposal and its associated environmental process. The time periods are for FAA review/processing only. Times for proponent and/or environmental contract support processing must be added.

ENVIRONMENTAL: The estimated time of completion for EA processing is 12 to 18 months or, for EIS processing, 18 to 36 months.

AERONAUTICAL (Non-Rulemaking): A minimum 4 months is required from submission of the Formal Airspace Proposal by the Proponent to the Service Area through completion of the circularization process. Additionally, a minimum of 6 months is required from submission of the Formal Airspace Proposal by the Service Area to Headquarters through completion of the charting process.

AERONAUTICAL (Rulemaking): A minimum 6 weeks for Service Area processing, and a minimum of 9 months to complete rulemaking once the formal package is received at Headquarters.

Appendix 4-4 FAA Procedures for Processing SUA Actions Aeronautical and Environmental Summary Table



Federal Aviation Administration

Memorandum

Date: MAR 11 2011
To: Lori Andriesen, Program Manager, AJV-W21
From: *B.W.* Bob Watkins, Air Traffic Manager, Anchorage ARTCC
Subject: Comments for the future Joint Pacific Alaska Range Complex (JPARC) Expansion

Attached are comments for the proposed JPARC Environmental Impact Statement (EIS).

If you have any questions regarding this information, please contact Mark Edge, Military Operations Specialist, ZAN-530.ME at (907) 269-1121.

**ANCHORAGE ARTCC (ZAN)
INITIAL COMMENTS FOR THE
JOINT PACIFIC ALASKA RANGE COMPLEX (JPARC) PROPOSED
ENVIRONMENTAL IMPACT STATEMENT**

The following are initial comments for the future JPARC EXPANSION EIS based on the information provided to Anchorage ARTCC and in accordance with FAA JO7400.2, paragraph 21-4-3.

1. Proposed Fox 3 Military Operating Area (MOA) Expansion and New Paxon MOA:

- a. Fox 3 MOA: No comment at this time.
- b. Fox 4 MOA: No comment at this time.
- c. Fox 5 and 6 MOA: The lateral boundaries of Fox 5/6 MOAs extend too far south and west, therefore, do not allow the following:
 - (1) Sequencing of northbound Anchorage departures en route to the Fairbanks area. Typically, northbound traffic requires sequencing to the east of V438 and J115. The sequencing to the west of these airways would be unadvisable and also be a possible safety risk as all aircraft southbound to the Anchorage Terminal Area are sequenced between Talkeetna, Alaska and Anchorage, Alaska.
 - (2) Sequencing of arrivals and departures between the Anchorage Airport and Gulkana, Alaska. With the current Fox 5 MOA information given to ZAN and the boundaries of Anchorage TRACON, there is very little room for vectoring aircraft left or right of course.
- d. Paxon MOA: With the information provided, the establishment of a Paxon MOA would close 3 low altitude airways (V481, V515, and V444). The outcome of closing these airways would be as follows:
 - (1) Small or low flying aircraft would be forced to either proceed from Gulkana/Northway, Alaska to Delta Junction/Fairbanks, Alaska VFR. As most of this airspace is requested in conjunction with adjacent pieces of airspace, circumnavigation of the airspace is unlikely. Terrain in this area is very high and could preclude a small aircraft from flying around this airspace VFR.
 - (2) The lack of low altitude radar and frequency coverage may eliminate the ability for small or low flying aircraft to proceed to the previously stated airports on anything other than established airways.

2. Proposed Realistic Live Ordinance Delivery:

No comment at this time.

3. Proposed Joint Combined Arms Live Fire:

With the information provided, the establishment of the BAX Restricted Area would close 3 low altitude airways (V481, V515, and V444). The outcome of closing these airways would be the same as previously stated under the Paxon MOA.

4. Proposed Night Joint Training:

No comment at this time.

5. Proposed Remotely Piloted Aircraft (RPA)/Unmanned Aerial Vehicle (UAV)

Access:

No comment at this time.

6. Proposed Enhanced Access to Ground Maneuver Space:

No comment at this time.

7. Proposed Joint Air – Ground Integration Complex:

No comment at this time.

8. Proposed Intermediate Staging Bases:

No comment at this time.

9. Proposed Missile Live Fire for AIM – 9X and AIM – 120 in the Gulf of Alaska:

No comment at this time.

10. Proposed Joint Precision Airdrop System Drop Zones:

No comment at this time.

L.2 GOVERNMENT-TO-GOVERNMENT CONSULTATION

L.2.1 Government-to-Government Consultation Follow-up Letter and Minutes



HEADQUARTERS ALASKAN COMMAND (ALCOM)
JOINT BASE ELMENDORF-RICHARDSON ALASKA

APR 8 2011

Lieutenant General Dana T. Atkins
Commander, Alaskan Command
9480 Pease Avenue, Suite 110
JBER AK 99506

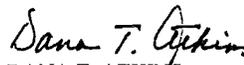
Mr. Eric Olsen
Council Member, Sun'aq Tribe of Kodiak
312 West Marine Way
Kodiak, AK 99615

Dear Mr. Olsen

Thank you for joining me and Brigadier General Palumbo on 28 February 2011 for formal government-to-government consultation regarding our proposed enhancements to the Joint Pacific Alaska Range Complex (JPARC). We were honored by the respect and integrity you and the other tribal leaders exhibited during your visit. We hope you gained a better understanding of our proposals. We have enclosed minutes to accurately reflect our discussion and agreements. We have a much better understanding of your concerns now and are pleased we came to some agreements to address them. I always learn so much whenever I meet with tribal leaders and appreciate your participation.

If you require any other information on JPARC or the consultation, please contact my Native Affairs and Natural Resources Advisor, Dr. Jerome Montague at (907) 552-2769 or jerome.montague@elmendorf.af.mil. You can also track JPARC developments and find more detailed information on our website www.jparceis.com.

Sincerely


DANA T. ATKINS
Lieutenant General, USAF
Commander

Enclosure: Minutes of Consultation

cc: MG Palumbo

Guardian of the North



HEADQUARTERS ALASKAN COMMAND (ALCOM)
JOINT BASE ELMENDORF-RICHARDSON ALASKA

APR 8 2011

Lieutenant General Dana T. Atkins
Commander, Alaskan Command
9480 Pease Avenue, Suite 110
JBER AK 99506

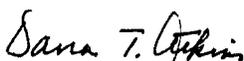
Mr. William Miller
President, Dot Lake Tribal Council
P.O. Box 2279
Dot Lake AK 99737

Dear Mr. Miller

Thank you for joining me and Brigadier General Palumbo on 28 February 2011 for formal government-to-government consultation regarding our proposed enhancements to the Joint Pacific Alaska Range Complex (JPARC). We were honored by the respect and integrity you and the other tribal leaders exhibited during your visit. We hope you gained a better understanding of our proposals. We have enclosed minutes to accurately reflect our discussion and agreements. We have a much better understanding of your concerns now and are pleased we came to some agreements to address them. I always learn so much whenever I meet with tribal leaders and appreciate your participation.

If you require any other information on JPARC or the consultation, please contact my Native Affairs and Natural Resources Advisor, Dr. Jerome Montague at (907) 552-2769 or jerome.montague@elmendorf.af.mil. You can also track JPARC developments and find more detailed information on our website www.jparceis.com.

Sincerely


DANA T. ATKINS
Lieutenant General, USAF
Commander

Enclosure: Minutes of Consultation

cc: MG Palumbo

Guardian of the North



HEADQUARTERS ALASKAN COMMAND (ALCOM)
JOINT BASE ELMENDORF-RICHARDSON ALASKA

APR 8 2011

Lieutenant General Dana T. Atkins
Commander, Alaskan Command
9480 Pease Avenue, Suite 110
JBER AK 99506

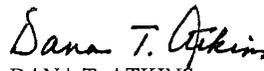
Mr. Doug Wade, Chairman
Chickaloon Village
P.O. Box 1105
Chickaloon AK 99674

Dear Mr. Wade

Thank you for joining me and Brigadier General Palumbo on 28 February 2011 for formal government-to-government consultation regarding our proposed enhancements to the Joint Pacific Alaska Range Complex (JPARC). We were honored by the respect and integrity you and the other tribal leaders exhibited during your visit. We hope you gained a better understanding of our proposals. We have enclosed minutes to accurately reflect our discussion and agreements. We have a much better understanding of your concerns now and are pleased we came to some agreements to address them. I always learn so much whenever I meet with tribal leaders and appreciate your participation.

If you require any other information on JPARC or the consultation, please contact my Native Affairs and Natural Resources Advisor, Dr. Jerome Montague at (907) 552-2769 or Jerome.Montague@elmendorf.af.mil. You can also track JPARC developments and find more detailed information on our website www.jpargcis.com.

Sincerely


DANA T. ATKINS
Lieutenant General, USAF
Commander

Enclosure: Minutes of Consultation

cc: MG Palumbo

Guardian of the North



HEADQUARTERS ALASKAN COMMAND (ALCOM)
JOINT BASE ELMENDORF-RICHARDSON, ALASKA 99506

Minutes of Government-to-Government Consultation Between Alaskan
Command and Chickaloon Village, Dot Lake Tribal Council and Sun'aq
Tribe of Kodiak Concerning Proposed Enhancements to Joint Pacific
Alaska Range Complex, 28 February 2011, Joint Base Elmendorf-
Richardson, Alaska

Agenda

- 10:00 AM Tour of Joint Operations Center (Mr. Jurewicz)
- 10:30 Tour of F-22, AIM-9 and AIM-120 missiles display (Lt Col Davis)
- 11:30 Tour of 212th Rescue Squadron (SMSgt Nelson)
- 12:30PM Welcome and introductions (Lt Gen Atkins) (working lunch at Arctic Warrior
Event Center-Billy Mitchell room)
- 12:40 Prayer (Mr. Olsen)
- 12:45 Command Video
- 1:25 Summary of the agency's consultation policy outlining rights and responsibilities
(Dr. Montague)
- 1:45 Break
- 1:55 Summary of proposed missile firing in Gulf of Alaska (Maj Cabral)
- 2:15 Summary of activities in proposed Paxon Military Operating Area (MOA)
(Maj Cabral)
- 2:35 Summary of activities in proposed Fox 5 MOA (Maj Cabral)
- 2:55 Break
- 3:00 Consultation (Lt Gen Atkins, Mr. Miller, Mr Olsen, BG Palumbo, and
Mr. Wade)
- 4:00 Adjourn

Guardian of the North

Attendees

Mr. Gene Agnew, Chickaloon Village, Transportation Department
Lt Gen Dana Atkins, Commander, Alaskan Command (ALCOM)
COL Thomas Bell, Deputy Director, Joint Exercise and Training Directorate, ALCOM
Maj Michael Cabral, Chief, Joint Exercise Division, ALCOM
Mr. Jeff Fee, Director, Joint Exercise and Training Directorate, ALCOM
Mr. William Miller, President, Dot Lake Tribal Council
Dr. Jerome Montague, Native Affairs and Natural Resources Advisor, ALCOM
Mr. Eric Olsen, Council Member, Sun'aq Tribe of Kodiak
BG (P) Raymond Palumbo, Deputy Commander, ALCOM
MAJ Russell Price, Deputy Director, Logistics and Engineering, ALCOM
Mr. Rickhart Rowland, Natural Resources Director, Sun'aq Tribe of Kodiak
Ms. Joan Smart, Community Relations Specialist, ALCOM
Mr. Doug Wade, Chairman, Chickaloon Village

Discussion

Dot Lake: Dot Lake indicated there has been supersonic low-level over flights even within the 4000' AGL restricted area around his village. The most disturbing over flights are low level, fast and/or with sonic booms. Low and slow is not really too bothersome. In the past Army personnel caused the most trouble. Once off-duty officers landed a helicopter on a lake near the tribe to go ice fishing. Their main concerns are not disturbing the non-migrating caribou during the calving season on the Macomb Plateau and not disturbing the moose during the two-week hunting season in the fall. The tribe indicated they were grateful for ALCOM's distinct recognition of tribal sovereignty and the opportunity to consult one-on-one with the commanders. In previous consultation with the military, tribal members suggested that the DoD will only listen to their concerns and not do anything about them. Their experience after consultation over military training routes in 2004 was the Air Force really did re-route MTRs away from their village.

ALCOM replied that non-Alaskan pilots are sometimes less familiar with the airspace and make mistakes. If we find out about it, we retrain the pilots to ensure future compliance with the rules. Now our planes have displays which show exactly where they are. Further, air traffic controllers are also now helping pilots stay within their bounds. Using military planes for recreation is a violation of federal law.

Chickaloon: Chickaloon asked how our radio frequency jamming exercises affect civilian use. The tribe discussed how there were many violations of game laws by Service members many years ago such as shooting caribou and moose with non-expanding full metal jacket bullets that do not kill cleanly. These occurrences still leave a bad taste in their mouth and even recently some Soldiers shot two swans and other animals out of season. The tribe asked the military to oppose development near them. Their main environmental concerns were protection of Dall sheep lambing and caribou calving areas near them from disturbance by aircraft. The tribe indicated some other tribes did not consult but had concerns.

ALCOM indicated the Air Force cannot jam or interfere with civilian frequencies. Service members committing crimes outside military areas may be prosecuted by civilian or military

authorities. The military is the benchmark in the nation for race relations and controlling drug abuse. The military now has no conscripts and is better educated, with over one quarter of enlisted members having bachelor's degrees. This is a very different atmosphere than you might have experienced in the '60s and '70s. A few of the tribes who were offered to consult for JPARC did not wish to consult but none-the-less had some concerns. These concerns are attached and will be considered in any final proposal.

Sun'aq: Sun'aq had many concerns over training activities in the Gulf of Alaska (GOA) both with the Navy's GOA Environmental Impact Statement (EIS) and what was proposed with the JPARC EIS. Their concerns centered around effects of military training (from explosions, sonar and contaminants) on salmon and marine mammals while at sea before they get near their subsistence areas. They further indicated salmon are badly disturbed even from the shadow of aircraft flying over. They wondered if the training area could be moved further offshore or moved from place to place. How do you protect marine life from non-exploding missiles? They outlined how the Kodiak missile launch facility was initially sold to the public for one use but has now expanded into many different uses than was originally proposed. Will you do this with JPARC? Also will you use local knowledge when developing and implementing your proposal? This tribe also indicated they were grateful for ALCOM's distinct recognition of tribal sovereignty and the opportunity to consult one-on-one with the commanders.

ALCOM reminded all that this consultation was only for Air Force activities in the GOA (100 non-exploding air-to-air missile firings annually) and that the consultation and public comment period was over on the Navy's proposed activities in the GOA (these began in 2007). Our missiles are non-exploding and the rocket motors burn out in 17 seconds, usually before impact with the water. Therefore, the amount of contaminants resulting is miniscule. Further, most air-to-air missiles are fired mid-altitude (20,000 feet). No aircraft will be casting a dark shadow on marine life. The over water training areas cannot be moved further offshore due to the fact that these areas must be near enough to bases so that fuel costs would not be prohibitive. The training areas cannot be moved around because an EIS needs to be prepared for every training area and that is cost prohibitive. ALCOM understood the "bait and switch" concern expressed during the comparison with the Kodiak Launch facility. This was not a directly applicable comparison since the launch facility was a private enterprise and JPARC was the Department of Defense (DoD). Nonetheless, the tribes would be protected from this in that any new proposal would require new government-to-government consultation and a new EIS. Lastly, ALCOM indicated it would be foolish to not use and benefit from the local knowledge.

Consultation Agreements

ALCOM:

Agreed to extend existing flight restrictions along the Alaska Highway further east on the highway near the north boundary of the proposed Paxon MOA.

Agreed to develop flight restrictions during the caribou calving season over the Macomb Plateau.

Agreed to consider some flight restrictions during the 2-week fall moose hunting season.

Agreed to provide Chickaloon Village with the decibel level of a supersonic F-22 at 5000' AGL.

Agreed to consider some flight restrictions during caribou calving and Dall sheep lambing periods near Chickaloon.

Agreed to allow the three tribes to contact COMALCOM directly if the tribe felt it necessary.

Agreed to allow the three tribes to re-initiate consultation if, after JPARC enhancement is implemented, the tribe(s) observe negative effects on wildlife.

Chickaloon:

Agreed that while they were opposed to any development near them, the JPARC enhancements seemed minimally invasive and in progress they will not fight pending evaluation after it is implemented.

Dot Lake:

Agreed the proposed flight restrictions addressed their concerns.

Sun'aq:

Agreed that although the tribal council opposed this proposal, after what was learned during the consultation, they have no concerns with the JPARC proposal but continue to have reservations about Navy activities.

**The Tribe With Concerns But Did Not Seek Government-to-Government
Consultation with Alaskan Command Concerning Proposed JPARC
Enhancements:**

Cheesh-na Tribal Council: This tribe indicated the proposed area was not close enough to them to cause direct concerns but they would like us to consider avoiding low-level flights over swan nesting areas and avoiding low-level flights over waterfowl concentrations anywhere. There are 1-3 jet flights up the Copper River each year, and they do not like it. They also do not like the Nabesna Road.

L.2.2 Initial Alaska Native Government-to-Government Consultation Letter with Enclosure and Mailing List

**ALASKA NATIVE GOVERNMENT-TO-GOVERNMENT CONSULTATION LETTER
WITH ENCLOSURE AND MAILING LIST**



HEADQUARTERS
ALASKAN COMMAND (ALCOM)
JOINT BASE ELMENDORF-RICHARDSON, ALASKA 99506

Lieutenant General Dana T. Atkins
Commander, Alaskan Command
9480 Pease Ave., Suite 110
JBER AK 99506-2101

Ms. Veronica Nicholas, President
(or current President)
Native Village of Cantwell
P.O. Box 94
Cantwell AK 99729

Dear Ms. Nicholas

The Department of Defense is proposing to reconfigure existing Alaska military airspace and training land to meet current and future training requirements. This reconfiguration, named Joint Pacific Alaska Range Complex (JPARC), will create a world class air, land, sea and computer simulated joint military training range. New, advanced, technologies, smarter opponents and tougher warfare terrain have brought about dramatic change in our training needs. JPARC would provide active-duty, National Guard and reserve components of the Army, Navy, Marine Corps, Air Force, Coast Guard and Special Operations military units the opportunity to train together (enclosure 1). Joint, realistic combat training is essential to the success of today's military operations and requires a location to accommodate air, ground, space, and maritime training operations. Currently the Army, Navy and Air Force base and train their units at Alaska installations, taking advantage of existing live-fire training ranges, special use airspace, restricted airspace, transit corridors and maritime environments. JPARC would combine the capabilities of these existing installations into a single training complex unmatched in the world.

Pursuant to our American Indian/Alaska Native Policy and Implementation Guidance (enclosure 2), I ask you to consider whether this proposal may have the potential to significantly affect any of the Cantwell Tribe's tribal rights, Indian land or protected tribal resources. Since this proposal is complex we have scheduled 60 days for your review hence I would appreciate a reply by November 8, 2010, with your

analysis. If you think your tribe will be affected, please specify which tribal right(s) or protected tribal resource(s) will be affected and how it (they) will be significantly affected. If you reply by indicating an effect to a right, resource or Indian land, we invite you to consult with us on a Government-to-Government basis as a way to discuss issues before we move forward with further environmental analysis and public comment. Additional information on this project can be found by visiting www.jparceis.com. We look forward to working with you to address any concerns you have on this project. Also, please let us know if you think tribes other than those listed in enclosure 3 may have concerns with JPARC. Please contact my Native Affairs Advisor, Dr. Jerome Montague, at Jerome.montague@elmendorf.af.mil or (907) 552-2769 if you have any questions.

Sincerely

DANA T. ATKINS
Lieutenant General, USAF
Commander

3 Enclosures:

1. JPARC Proposed Activities and Maps
2. DoD American Indian/Alaska Native Policy and Alaska Implementation Guidance
3. JPARC Tribal Consultation Address list

**PURPOSE AND NEED FOR THE PROPOSED
JOINT PACIFIC ALASKA RANGE COMPLEX ENVIRONMENTAL IMPACT STATEMENT
ACTIONS**

The U.S. Department of Defense (DoD) faces an exceptional challenge to meet compelling and increasingly urgent warfighter needs. In an era of persistent combat operations, the DoD continues to generate new technologies, learn from battlefield experiences, update tactics, and train intensively. Each of these challenges drives the need for continued development and enhancements to the range and airspace infrastructure to more accurately replicate the modern battlefield for training and testing. With the planned continued development and enhancements, the Joint Pacific Alaska Range Complex (JPARC) would provide the critical future training and testing required in a manner that maximizes modern battlespace realism.

1.1 Background to the JPARC

Studies by the U.S. Joint Forces Command and others predict that U.S. military combat operations will require response to a blend of conventional and irregular threats from peer or near-peer potential adversaries. Adding to the challenge, the physical conditions in the regions of potential conflict are characterized by harsh climates. Joint forces and joint training are key strategy elements in responding to these threats.

Currently, Alaska's military assets use extensive air, land, and sea areas to replicate realistic conditions for relevant combat training and testing of combat systems. However, expanded weapons and sensor capabilities, expanded mobility, and improved communications have all driven the need for larger operational footprints. Ranges and airspace used for training must respond as technology continues to expand the military footprint, and as combat operations continue as complex, full-spectrum, blended engagements that call for agile joint forces to deploy into complex terrain.

Our forces must always be ready to operate immediately as a joint team in all domains—land, sea, air, maritime, and information. The JPARC would provide a training venue with the land, water, and airspace for joint Services home training. Alaska provides a unique backdrop with an uncluttered electromagnetic environment, minimal encroachment, and a strategic location within the sovereign bounds of the United States.

The expanse and availability of the ranges and airspace would allow commanders to train for full-spectrum engagements from individual skills up to tactical and operational joint tasks. The vision for the JPARC builds on these inherent strengths and drives continued tactical relevance to the evolving operational conditions, latest technology, and mission priorities that require joint training approaches.

Developing the JPARC would build on a firm foundation of extensive training, decades of testing, and range infrastructure already in place. Future investments would come from the individual Services—Army, Air Force, and Navy—that would jointly benefit from these capabilities. In recognition of the value of collaboration among JPARC Stakeholders, the U.S. Pacific Command (USPACOM) directed the creation of the Alaska Joint Training Program of Excellence, with the JPARC as its centerpiece.

1.2 Proposed JPARC Actions and Alternatives

The following projects are those currently proposed to be addressed in the *Joint Pacific Alaska Range Complex Environmental Impact Statement (JPARC EIS)*. The proposed JPARC would create improved training and testing opportunities through continued development and enhancement of Alaska's current training areas and capabilities. The military Services jointly propose to enhance and/or establish new Military Operations Areas, Restricted Areas, airspace corridors, ground maneuver training areas, training facilities and supporting infrastructure to provide adequate airspace and controlled-access land to train under realistic and varied conditions.

The *JPARC EIS* will analyze the environmental effects of the proposed JPARC continued development and enhancements, including special use airspace expansion, land-based training/maneuver space expansion, road and airfield construction, facility construction and renovation, equipment storage and operation, onsite maintenance, live ordnance delivery, training with remotely piloted aircraft, extended night vision training, buffered drop zones, and the use of training airspace. The descriptions of the proposed JPARC actions are presented in the table below, *JPARC EIS* Proposed Actions and Alternatives and in Attachment A, JPARC Overview of EIS Proposed Actions and Alternatives. Attachments B through H more specifically identify the locations for the *JPARC EIS* Proposed Actions and Alternatives.

<i>JPARC EIS</i> Proposed Actions and Alternatives	Map
<p>① Fox 3 Military Operating Area (MOA) Expansion and New Paxon MOA</p> <p>Proposed Action: The Air Force proposes to expand the Fox 3 MOA and establish a new, adjacent Paxon MOA to provide the vertical and horizontal airspace structure needed to better accommodate low-altitude threat and multiple-axis mission activities during Joint Pacific Alaska Range Complex training exercises.</p> <p>Key Components: Expand the boundaries of the existing Fox 3 MOA, currently extending from 5,000 feet above ground level (AGL) up to, but not including flight level (FL) 180, to the south and east and subdivide it into four sectors, with the newly expanded sectors extending from 500 feet AGL up to, but not including, FL180. Establish a new Paxon MOA, extending from 500 feet AGL up to, but not including, FL180, to adjoin the proposed expanded Fox 3 MOA to the east.</p> <p>Action Alternatives:</p> <p>Alternative A includes the proposed expanded Fox 3 MOA and the proposed new Paxon MOA with both the high- and low-altitude MOAs.</p> <p>Alternative B includes only the Fox 3 MOA expansion (as in Alternative A) without the new Paxon MOA.</p> <p>Alternative C includes the Fox 3 MOA expansion without the low-altitude MOA.</p> <p>Alternative D proposes keeping the Fox 3 MOA boundaries the same as they currently exist, but separating the MOA into four subdivided sectors, as well as high- and low-altitude MOAs. The low-altitude MOA would extend from 500 feet AGL up to, but not including 5,000 feet AGL. The high-altitude MOA elevations would match those currently existing.</p>	<p>Attachment B</p> <p>Proposed Fox MOA Expansion</p>

<i>JPARC EIS Proposed Actions and Alternatives</i>	Map
<p>Realistic Live Ordnance Delivery</p> <p>Proposed Action: The proposed action is to establish a realistic air and ground training environment that would accommodate live ordnance delivery.</p> <p>Key Components: As the technology for new weapons systems continues to evolve, the ground footprint for ordnance delivery training continues to expand, thus creating the need for larger ground and airspace areas in which to safely conduct this training. The GBU-32 [Guided Bomb Unit-32] and Small-Diameter Bomb (SDB) have the largest footprints, therefore, they would serve as the basis for locating the targets and the airspace needed to fully support live ordnance delivery using these systems. Live ordnance activities would be executed as part of both individual pilot training and joint training with other air and ground units.</p> <p>Action Alternatives:</p> <p>Alternative A proposes the use of existing targets in the Oklahoma Impact Area within Restricted Airspace 2202 (R-2202) with the expansion of this restricted airspace to the west to encompass the airspace and underlying lands.</p> <p>Alternative B proposes that live ordnance delivery make use of existing targets at the Oklahoma and Blair Lakes Impact Areas with new restricted airspace established that links R-2211 and R-2202. Based on the ceiling altitude of R-2211 as flight level (FL) 310 and the upper altitude of R-2202 being FL310, the proposed altitude for the restricted airspace linking these two restricted areas would also be FL310. Higher altitudes may be required for some live-fire ordnance profiles.</p> <p>Alternative C proposes weapons corridors through the Eielson Military Operations Area and overlying Air Traffic Control Assigned Airspace that would provide two protective pathways for live ordnance use within the Oklahoma Impact Area. These corridors would be approximately 10 miles in width and extend from FL200 to FL310, as needed, to accommodate the delivery altitudes of the ordnance types being delivered.</p>	<p>Realistic Live Ordnance Delivery Alternatives</p> <p>Attachment C: Alternative A Proposed R-2202 Expansion</p> <p>Attachment D: Alternative B Proposed Restricted Area Linking R-2211 and R-2202</p> <p>Attachment E: Alternative C Proposed Eielson Weapons Corridors</p>
<p>Joint Combined Arms Live Fire (JCALF)</p> <p>Proposed Action: The Army proposes to establish restricted airspace (RA) to better support JCALF training over the Battle Area Complex (BAX) located in the Donnelly Training Area (DTA) near Delta Junction, and the Digital Multipurpose Training Range (DMPTR), located in the Yukon Training Area (YTA).</p> <p>Key Components: JCALF is a critical component to Army training because this exercise activity involves multiple combat functions operating together to accomplish the same mission objectives. For example, armed reconnaissance helicopters, such as OH-58Ds, and ground forces practice maneuvering together against the same objectives. In addition, Air Force A-10s could provide support during the JCALF training exercises. This type of joint training is a critical step between individual and small unit training and operating within a joint team structure with the Air Force, Navy, and Marines. This training proposes to integrate Army operations, including indirect fire, small arms, and Stryker vehicles, and Army aviation, including helicopters and remotely piloted aircraft.</p> <p>Action Alternatives:</p> <p>Alternative A/BAX establishes new RA directly over the BAX in the DTA currently proposed to support controlled firing areas</p> <p>Alternative A/DMPTR establishes new RA directly over the DMPTR area located within YTA. This RA would provide protective areas for the hazardous activities and weapons safety footprints and would be of sufficient size to encompass hazardous activities and weapons footprints for the types of ordnance used in this area.</p>	<p>Attachment F</p> <p>Additional Proposed Airspace Changes</p>

<p>④ Night Joint Training</p> <p>Proposed Action: In combat situations, conducting flight training during the hours of limited visibility using advanced night vision technology gives the U.S. military a distinct advantage. Training with this equipment can only be conducted at night.</p> <p>Key Components: Extend the special use airspace (SUA) hours until 11:00 P.M., with landing by midnight, local time, during the months of March and October to accommodate flight training at night for major flying exercises (MFEs) and extend the Joint Pacific Alaska Range Complex (JPARC) operating hours for tactical flight operations. Coordinated Universal Time would be considered, which would provide the time-use stability by remaining on the sun clock in case daylight saving time is changed again.</p> <p>Action Alternatives:</p> <p>Alternative A proposes to extend the SUA hours to accommodate night training for MFEs during March and October. The hours are currently set to cease training activities by 10:00 P.M., with landing by 11:00 P.M., local time.</p> <p>Alternative B proposes to extend the JPARC operating hours to allow tactical flight operations until midnight and landing by 1:00 A.M., local time, during March and October. This would allow night training during these months from a minimum of 1.5 hours to a maximum of 2.5 hours for each exercise.</p> <p>Alternative C proposes to extend the JPARC operating hours to allow tactical flight operations until midnight and landing by 1:00 A.M., local time, during all months of the year and for all training purposes, not just for MFEs, as is the current situation.</p>	<p>Attachment A</p> <p>JPARC Overview of EIS Proposed Actions and Alternatives</p>
<p>④ Remotely Piloted Aircraft (RPA) Access</p> <p>Proposed Action: RPAs have emerged as a viable platform for reconnaissance and surveillance activities. RPA access throughout the Joint Pacific Alaska Range Complex (JPARC) ranges and airspace is critical to enhance JPARC training and exercises. <i>The following RPA corridors have been developed as individual, standalone proposed actions and alternatives:</i> Eielson Air Force Base (AFB) to Restricted Airspace 2211 (R-2211); Eielson AFB Class C airspace to R-2205; Allen Field to R-2202; R-2202 to R-2211; R-2205 to R-2202; Fort Wainwright to R-2211; and Fort Wainwright to R-2205.</p> <p>Key Components: Establish new restricted airspace (RA) or other suitable airspace, such as a Certificate of Authorization (COA), as determined by the Federal Aviation Administration, to support RPA airspace corridors. RPA activity would be intermittent, activating RAs or COAs only during training or exercises when RPAs are required. Each corridor would be between 5 and 8 nautical miles in width and of varying altitudes.</p> <p>Action Alternatives:</p> <p>Alternative A would establish new RA for each RPA corridor identified above.</p> <p>Alternative B would establish a RA via a COA for each RPA corridor identified above.</p>	<p>Attachment F</p> <p>Additional Proposed Airspace Changes</p>

⑩ Maneuver Space

Proposed Action: Provide expanded maneuver ground space and year-round accessibility in the Army's Tanana Flats (TFTA), Donnelly (DTA), and Yukon (YTA) Training Areas, as well as new roadway access in TFTA.

Key Components: The expanded maneuver space would support year-round training access, internal circulation routes, and integration of proposed Intermediate Staging Bases. The training frequency at this time is planned to support six combat maneuver battalions training in these areas for a 10- to 14-day event at least once a year per battalion. The ground maneuver area could be used to train a Stryker company outside of the hazard footprints from aerial ordnance or indirect fire. The desired road surface would be a 35-foot-wide aggregate surface to allow two Stryker vehicles to pass.

Action Alternatives:

The only action alternatives developed to date involve proposed road access into the Blair Lakes area of TFTA, as shown on the corresponding map and described below. (Specific alternatives for direct access to DTA and YTA have not yet been developed to the point where a specific decision can be made.)

TFTA Access Road Alternative A follows the proposed railroad alignment 11 miles, and then crosses the Tanana Flats along an existing winter-access trail to higher ground around Blair Lakes.

TFTA Access Road Alternative B follows the proposed railroad alignment 8 miles before crossing the Tanana Flats toward Hill 1406. The route traverses the eastern slopes of Hill 1406, then a broad terrace southeast toward Blair Lakes, crossing Dry Creek near Blair Lakes.

TFTA Access Road Alternative C follows existing trail systems southwest across the Tanana Flats toward Hill 1406, avoiding open areas as much as possible. From Hill 1406, two possible routes to Blair Lakes are being considered: the first traverses the eastern slopes of Hill 1406 and then a broad terrace southeast toward Blair Lakes, crossing Dry Creek near Blair Lakes; the second route remains on the flats north of Hill 1406, crossing Dry Creek where the creek enters the flats, then running up the Dry Creek Valley to the higher ground around Blair Lakes.

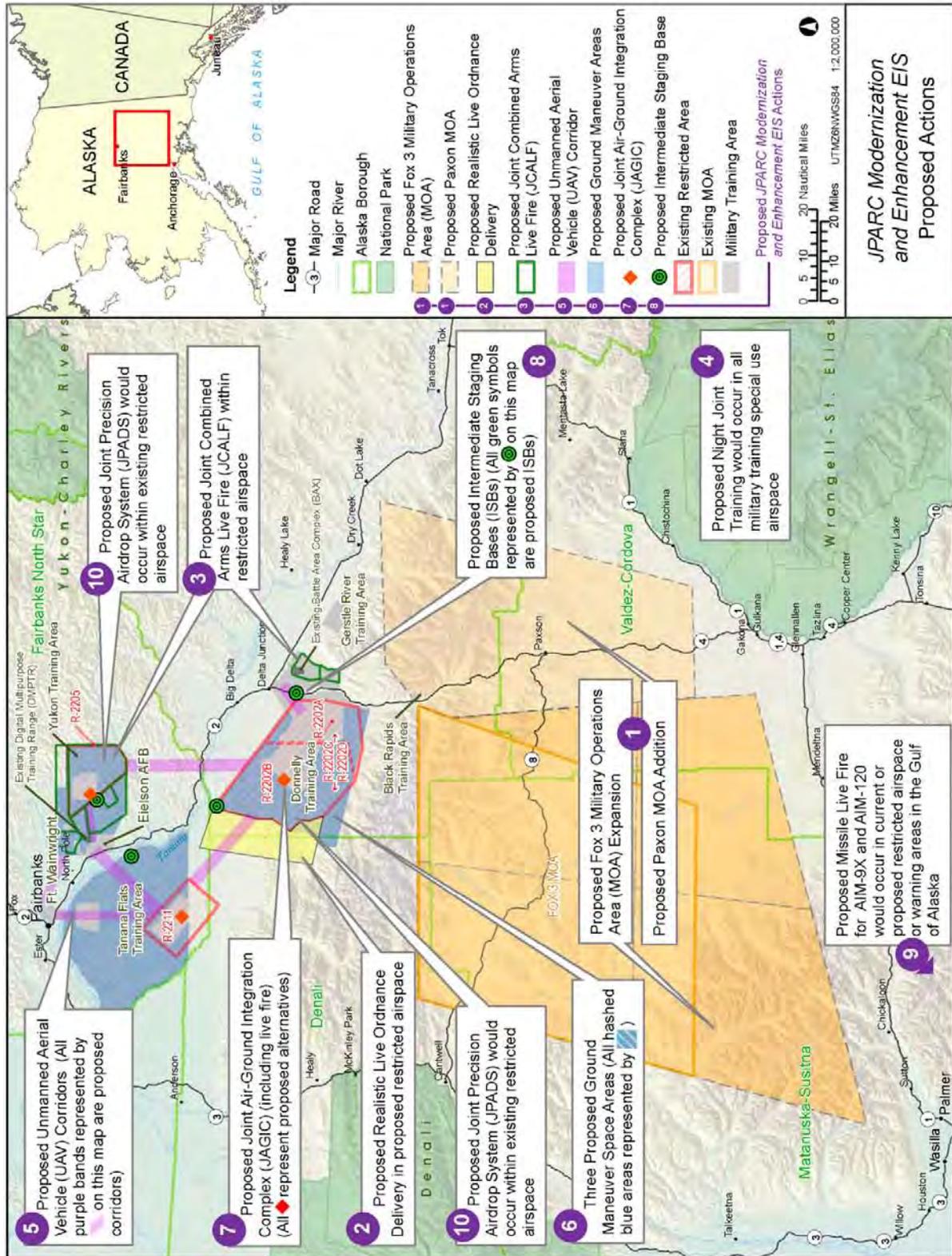
TFTA Access Road Alternative D is similar to Alternative C, except it takes a more direct route from the Tanana River toward Hill 1406. From Hill 1406, two routes to Blair Lakes are being considered: the first traverses the eastern slopes of Hill 1406, then a broad terrace southeast toward Blair Lakes, crossing Dry Creek near Blair Lakes; the second route remains on the flats north of Hill 1406, crossing Dry Creek, and then running up the Dry Creek Valley to higher ground around Blair Lakes.

Attachment G

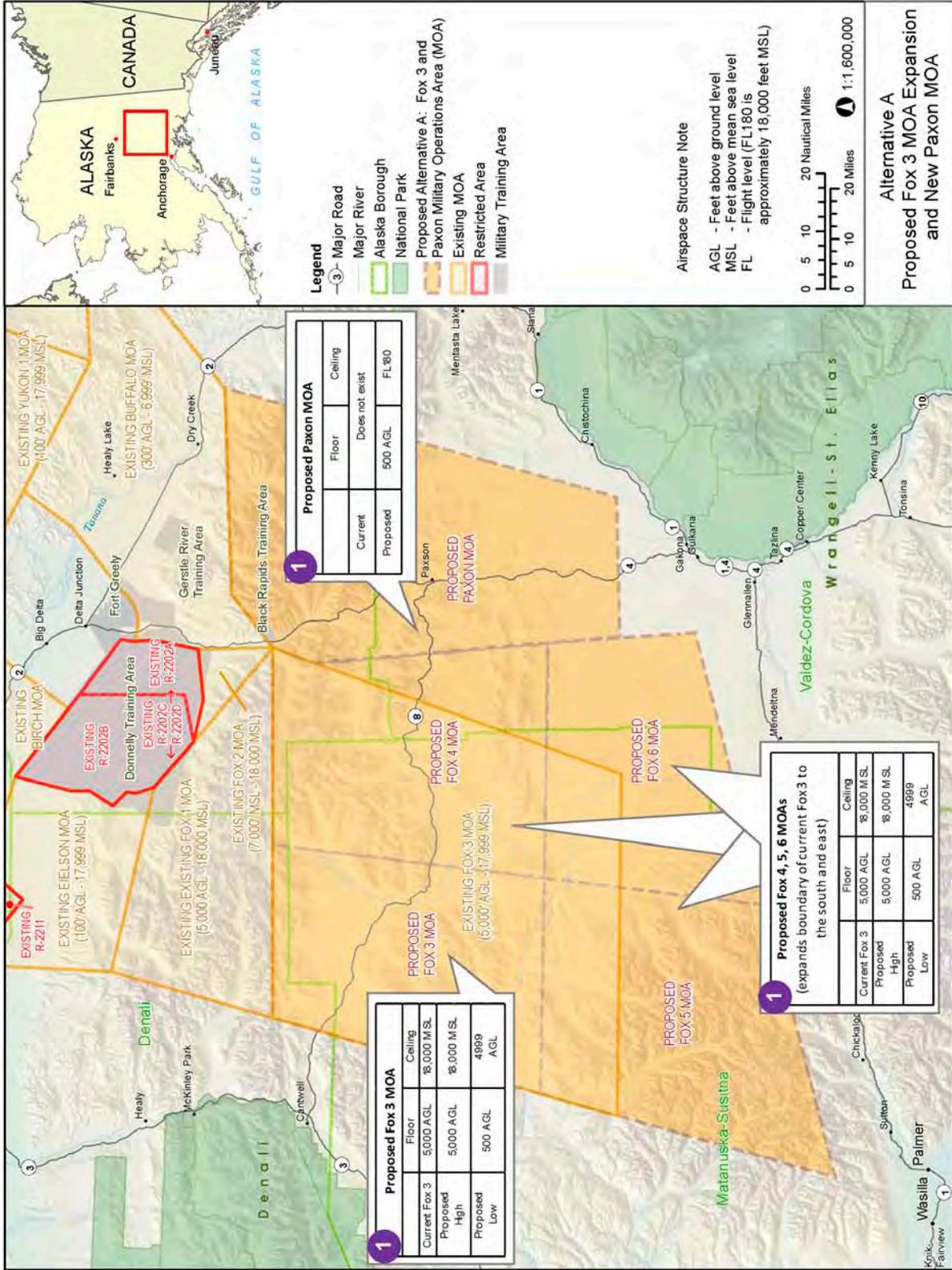
Additional Proposed Ground Changes

<p>Joint Air-Ground Integration Complex (JAGIC)</p> <p>Proposed Action: The JAGIC is a proposed Joint Pacific Alaska Range Complex capability for joint and combined live training. The JAGIC would allow Army-combined arms capabilities to jointly operate with the Air Force and Navy air-to-air and air-to-ground capabilities along with special operations forces.</p> <p>Key Components: The JAGIC is a digitally integrated combat training area with a total footprint of approximately 912 by 128 km in size. The JAGIC would consist of target arrays with service roads, range support buildings, parking area, range tower, convoy live-fire route, urban centers, and an area for rocket training. Most of the target arrays, the convoy live-fire route, and the urban facilities would be concentrated in a 9- by 612-km area within the range. The JAGIC would be strategically placed to provide adequate airspace and controlled-access land for the safety buffers needed to train with a full range of munitions that may be used in combat.</p> <p>Action Alternatives:</p> <p>Alternative A proposes to locate the JAGIC in the central area of DTA-West, proximate to the western boundary of the Oklahoma Impact Area.</p> <p>Alternative B proposes to locate the JAGIC in the Stuart Creek Impact Area within YTA.</p> <p>Alternative C proposes to locate the JAGIC in the Blair Lakes Impact Area near the southern boundary of the Tanana Flats Training Area under the existing Restricted Airspace 2211 (R-2211).</p>	<p>Attachment G</p> <p>Additional Proposed Ground Changes</p>
<p>Intermediate Staging Bases (ISBs)</p> <p>Proposed Action: Locate and construct a 1,000-Soldier ISB near the existing Battle Area Complex (BAX), along with three 200- to 500-Soldier ISBs at Yukon Training Area (YTA), Donnelly Training Area-West (DTA-West), and Salcha.</p> <p>Key Components: The ISBs would include permanent barracks, large parking areas, dining facilities, ammunition storage points, petroleum-oil lubricant areas, maintenance facilities, and possible airfields to house, maintain, and stage soldiers before insertion into surrounding combat training areas. They would also provide maintenance and logistics support away from main cantonment areas.</p> <p>Action Alternatives:</p> <p>Alternative A is to provide a permanent 1,000-Soldier ISB near existing BAX, along with three permanent 200- to 500-Soldier ISBs at YTA, DTA-West, and Salcha. The facility would be for joint use, not Army use only. These are proposed at key points along the planned rail corridor close to the planned bridge crossings.</p> <p>Alternative B is to use existing temporary "relocatable" ISB facilities over the next 7 years, and then replace them with permanent facilities.</p>	

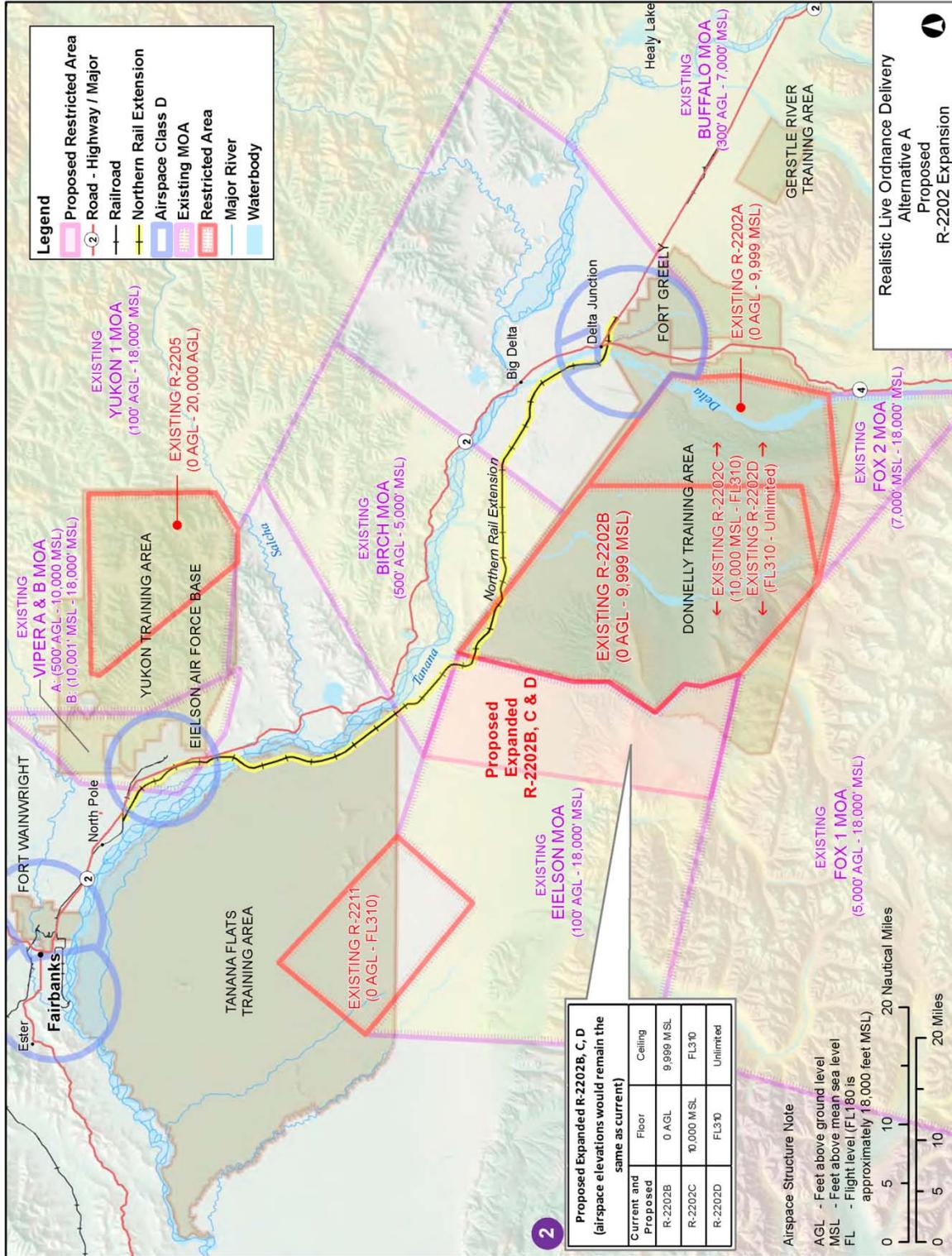
<p>④ Missile Live Fire for AIM-9X and AIM-120</p> <p>Proposed Action: The AIM-9X and AIM-120 missile systems are the main air-to-air armaments for the F-22 Raptor. For effective training to be conducted with these systems, live training shots need to be executed as part of both individual pilot training and joint training exercises with other air and ground units, such as Northern Edge.</p> <p>Key Components: Live ordnance delivery requires use of either restricted airspace with range target areas or a warning area of sufficient size to contain the explosive hazard areas associated with these missile systems. Instrumentation would be needed to control drones, radar, radio relays, and weapon telemetry and termination equipment in support of this training activity.</p> <p>Action Alternatives:</p> <p>Alternative A proposes that the existing Temporary Maritime Activities Area (300 nautical miles [NM] long by 150 NM wide, 0 feet above ground level [AGL] – flight level (FL) 600; includes subsurface operating areas), and Warning Area 612 (WA-612) (0 feet AGL – FL290) in the Gulf of Alaska be considered for the missile live fire delivery of the AIM-9X and AIM-120 missiles by Air Force F-22 fighter aircraft.</p>	<p>Attachment H</p> <p>Proposed Missile Live Fire for AIM-9X and AIM-120 in the Gulf of Alaska Temporary Maritime Activities Area and Warning Area 612</p>
<p>⑩ Joint Precision Airdrop System (JPADS) Drop Zones</p> <p>Proposed Action: Provide JPADS drop zones as part of Joint Pacific Alaska Range Complex training exercises.</p> <p>Key Components: Utilize current or proposed restricted airspace to support JPADS drop zone training with a system of global positioning system receivers and steerable parachutes to support aerial resupply training under realistic and varied conditions.</p> <p>Action Alternatives:</p> <p>Alternative A proposes conducting reduced operations in Restricted Airspace 2205 (R-2205) in the Yukon Training Area.</p> <p>Alternative B proposes conducting reduced operations in the Donnelly Training area Oklahoma Impact Area.</p> <p>(The key distinction between Alternatives A and B is that Restricted Airspace 2205 currently has more time available to accommodate JPADS Drop Zone training exercises.)</p>	<p>Attachment G</p> <p>Additional Proposed Ground Changes</p>



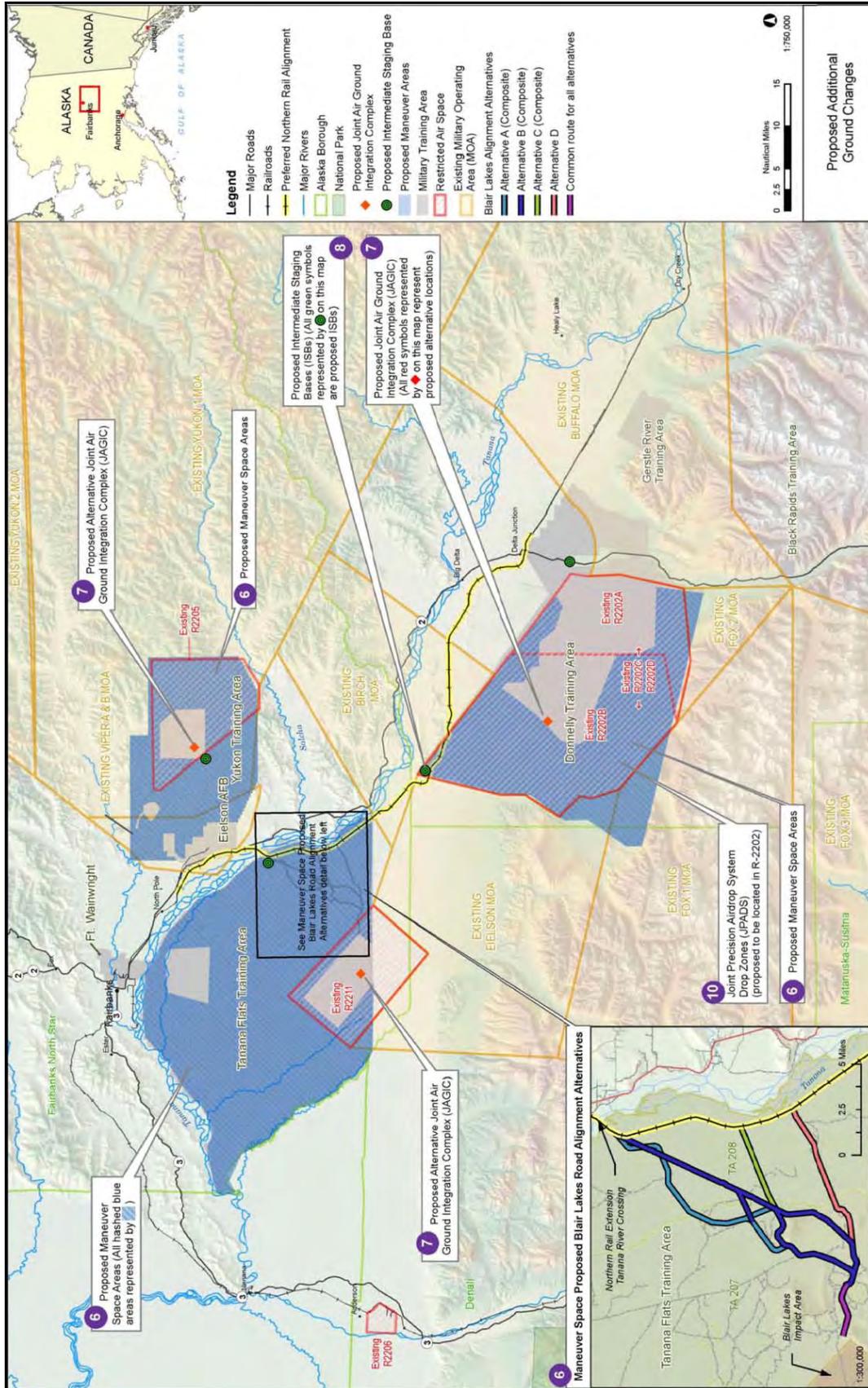
Attachment A: JPARC Overview of EIS Proposed Actions and Alternatives



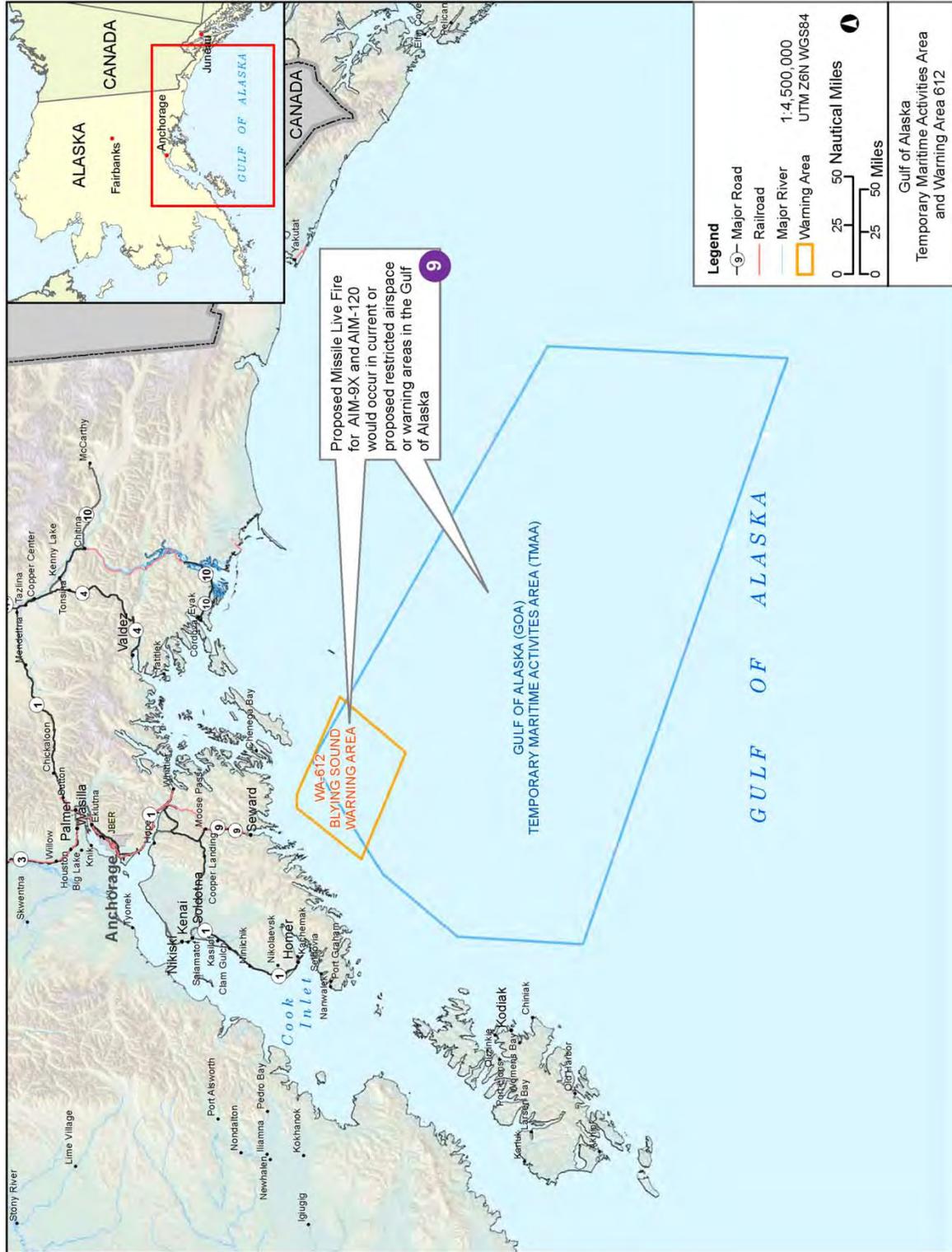
Attachment B: Proposed Fox MOA Expansion



Attachment C: Realistic Live Ordnance Delivery Alternative A
Proposed R-2202 Expansion



Attachment G: Additional Proposed Ground Changes



**Attachment H: Proposed Missile Live Fire for AIM-9X and AIM-120 in the Gulf of Alaska
Temporary Maritime Activities Area and Warning Area 612**

**Alaska Native Government-to-Government
Consultation Letter Mailing List**

Larry Sinyon, President, Cheesh-na Tribal Council (old Native Village of Chistochina)
Doug Wade, Chairman, Chickaloon Native Village
Solomon John, First Chief, Circle Native Community
Dorothy Cook, President, Eklutna Native Village
Roy S. Ewan, President, Gulkana Village
JoAnn Polston, Chief, Healy Lake Traditional Council
Phyllis Amodo, First Chief, Kaguyak Village
Debra Call, President, Knik Village
Gordon Pullar, Council President, Lesnoi Village
Nora David, First Chief, Mentasta Traditional Council
Speridon Mitch Simeonoff, President, Native Village of Akhiok
Veronica Nicholas, President, Native Village of Cantwell
Larry Evanoff, President, Native Village of Chenega
Ronald Mahle, President, Native Village of Chitina
Joyce Roberts, First Chief, Native Village of Eagle
Robert Henrichs, President, Native Village of Eyak
Darin Gene, President, Native Village of Gakona
Carl Pete, President, Native Village of Kluti-Kaah
Wally Kvasnikoff, First Chief, Native Village of Nanwalek
Alex Ambrosia, President, Native Village of Ouzinkie
Patrick Norman, First Chief, Native Village of Port Graham
Arnold Kewan, President, Native Village of Port Lions
Roy Denny, President, Native Village of Tanacross
Lori Johnson, President, Native Village of Tatitlek
John Goodlataw, President, Native Village of Tazlina
Donald Adams, President, Native Village of Tetlin
Frank Stanifer, President, Native Village of Tyonek
William Lord, First Chief, Nenana Native Association
Belinda Thomas, President, Northway Village
Crystal Collier, President, Seldovia Village Tribe
Brenda Schwantes, Chairman, Sun'aq (Shoonaq)
Ruth Dawson, Chairman, Village of Afognak
William Miller, President, Village of Dot Lake
Conrad Peterson, President, Village of Old Harbor
Victoria Demmert, President, Yakutat Tlingit Tribe

L.2.3 Alaska Native Government-to-Government Section 106 Consultation Notification Letters



PACIFIC AIR FORCES
ELEVENTH AIR FORCE
JOINT BASE ELMENDORF-RICHARDSON, ALASKA 99506

MAR 02 2012

Colonel Patrick O. Moylan
Eleventh Air Force
Vice Commander
9480 Pease Avenue, Suite 118
Joint Base Elmendorf-Richardson Alaska 99506

Ms. Belinda Thomas, Tribal Administrator
Northway Village
P.O. Box 516
Northway, Alaska 99764

Dear Ms. Thomas

The U.S. Department of Army and the Air Force are planning a modernization and enhancement of the Joint Pacific Alaska Range Complex (JPARC) pursuant to the Department of Defense joint training needs to allow for optimum use of land, air, and physical assets. This project is considered an undertaking subject to review under Section 106 of the National Historic Preservation Act.

The *Environmental Impact Statement (EIS) for the Modernization and Enhancement of Ranges, Airspace, and Training Areas in the JPARC in Alaska* contains six definitive proposals. The Air Force is conducting Section 106 consultation for three projects: Fox 3 Military Operating Area (MOA) Expansion and New Paxon MOA, Realistic Live Ordnance Delivery (RLOD), and Night Joint Training (NJT) proposals [Attachments 1-3]. The U.S. Army Garrison Fort Wainwright is conducting Section 106 consultation for the remaining three projects.

The Alaska State Historic Preservation Office (AK SHPO) concurs with the determination that a finding of no historic properties affected is appropriate for the Fox 3 MOA Expansion and New Paxon MOA and the NJT [Attachment 4]. AK SHPO was unable to concur with the proposed finding of no historic properties affected for the RLOD proposal until cultural resource surveys of new proposed target areas are completed.

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Sincerely


PATRICK O. MOYLAN, Colonel, USAF
Vice Commander

Attachments:

1. Fox 3 MOA Expansion and New Paxon MOA Proposal
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Guardian of the North

*JPARC Modernization and Enhancement
Environmental Impact Statement*



PACIFIC AIR FORCES
ELEVENTH AIR FORCE
JOINT BASE ELMENDORF-RICHARDSON, ALASKA 99506

MAR 02 2012

Colonel Patrick O. Moylan
Eleventh Air Force
Vice Commander
9480 Pease Avenue, Suite 118
Joint Base Elmendorf-Richardson Alaska 99506

James Mery, Senior Vice President
Doyon Limited
1 Doyon Place, Suite 300
Fairbanks, Alaska 99701

Dear President Mery

The U.S. Department of Army and the Air Force are planning a modernization and enhancement of the Joint Pacific Alaska Range Complex (JPARC) pursuant to the Department of Defense joint training needs to allow for optimum use of land, air, and physical assets. This project is considered an undertaking subject to review under Section 106 of the National Historic Preservation Act.

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ELEVENTH AIR FORCE
JOINT BASE ELMENDORF-RICHARDSON, ALASKA 99506

MAR 02 2012

Colonel Patrick O. Moylan
Eleventh Air Force
Vice Commander
9480 Pease Avenue, Suite 118
Joint Base Elmendorf-Richardson Alaska 99506

Mr. Roy Denny, President
Tanacross Village Council
P. O. Box 76009
Tanacross, Alaska 99776

Dear President Denny

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Environmental Impact Statement***



PACIFIC AIR FORCES
ELEVENTH AIR FORCE
JOINT BASE ELMENDORF-RICHARDSON, ALASKA 99506

MAR 02 2012

Colonel Patrick O. Moylan
Eleventh Air Force
Vice Commander
9480 Pease Avenue, Suite 118
Joint Base Elmendorf-Richardson Alaska 99506

Mr. Donald Adams, President
Native Village of Tetlin (IRA)
P.O. Box 797
Tetlin, Alaska 99779

Dear President Adams

The U.S. Department of Army and the Air Force are planning a modernization and enhancement of the Joint Pacific Alaska Range Complex (JPARC) pursuant to the Department of Defense joint training needs to allow for optimum use of land, air, and physical assets. This project is considered an undertaking subject to review under Section 106 of the National Historic Preservation Act.

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ELEVENTH AIR FORCE
JOINT BASE ELMENDORF-RICHARDSON, ALASKA 99506

MAR 02 2012

Colonel Patrick O. Moylan
Eleventh Air Force
Vice Commander
9480 Pease Avenue, Suite 118
Joint Base Elmendorf-Richardson Alaska 99506

Mr. William J. D. Lord, First Chief
Nenana Native Association
P.O. Box 369
Nenana, Alaska 99729

Dear Chief Lord

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ELEVENTH AIR FORCE
JOINT BASE ELMENDORF-RICHARDSON, ALASKA 99506

MAR 02 2012

Colonel Patrick O. Moylan
Eleventh Air Force
Vice Commander
9480 Pease Avenue, Suite 118
Joint Base Elmendorf-Richardson Alaska 99506

Ms. JoAnn Polston, President
Healy Lake Village
P.O. Box 74090
Fairbanks, Alaska 99706

Dear President Polston

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ELEVENTH AIR FORCE
JOINT BASE ELMENDORF-RICHARDSON, ALASKA 99506

MAR 02 2012

Colonel Patrick O. Moylan
Eleventh Air Force
Vice Commander
9480 Pease Avenue, Suite 118
Joint Base Elmendorf-Richardson Alaska 99506

Conan Goebel, First Chief
Native Village of Eagle (IRA)
P.O. Box 19
Eagle, Alaska 99738

Dear Chief Goebel

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Environmental Impact Statement**



PACIFIC AIR FORCES
ELEVENTH AIR FORCE
JOINT BASE ELMENDORF-RICHARDSON, ALASKA 99506

MAR 02 2012

Colonel Patrick O. Moylan
Eleventh Air Force, Vice Commander
9480 Pease Avenue, Suite 118
Joint Base Elmendorf-Richardson Alaska 99506

Ms. Veronica Nicholas, President
Native Village of Cantwell
P.O. Box 94
Cantwell AK 99729

Dear President Nicholas

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ELEVENTH AIR FORCE
JOINT BASE ELMENDORF-RICHARDSON, ALASKA 99506

MAR 02 2012

Colonel Patrick O. Moylan
Eleventh Air Force
Vice Commander
9480 Pease Avenue, Suite 118
Joint Base Elmendorf-Richardson Alaska 99506

Mr. William J. Miller, President
Village of Dot Lake
P. O. Box 2279
Dot Lake, Alaska 99737

Dear President Miller

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PACIFIC AIR FORCES
ELEVENTH AIR FORCE
JOINT BASE ELMENDORF-RICHARDSON, ALASKA 99506

OCT 12 2012

Colonel Patrick O. Moylan
Eleventh Air Force
Vice Commander
9480 Pease Avenue, Suite 118
Joint Base Elmendorf-Richardson Alaska 99506

Ms. Kathryn Martin
Vice President of Land and Resources, AHTNA Inc.
P.O. Box 649
Glennallen AK 99588

Dear Ms. Martin

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Guardian of the North



PACIFIC AIR FORCES
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OCT 12 2012

Colonel Patrick O. Moylan
Eleventh Air Force
Vice Commander
9480 Pease Avenue, Suite 118
Joint Base Elmendorf-Richardson Alaska 99506

Mr. Eric Rice, President
(or current President)
Village of Dot Lake
P. O. Box 2279
Dot Lake Alaska 99737

Dear President Rice

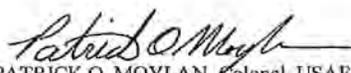
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Colonel Patrick O. Moylan
Eleventh Air Force
Vice Commander
9480 Pease Avenue, Suite 118
Joint Base Elmendorf-Richardson Alaska 99506

Ms. Veronica Nicholas, President
(or current President)
Native Village of Cantwell
P.O. Box 94
Cantwell Alaska 99729

Dear President Nicholas

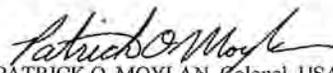
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Colonel Patrick O. Moylan
Eleventh Air Force
Vice Commander
9480 Pease Avenue, Suite 118
Joint Base Elmendorf-Richardson Alaska 99506

Mr. Conan Goebel, First Chief
(or current First Chief)
Native Village of Eagle (IRA)
P.O. Box 19
Eagle Alaska 99738

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(or current President)
Healy Lake Village
P.O. Box 74090
Fairbanks Alaska 99706

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P.O. Box 369
Nenana Alaska 99729

Dear Chief Charlie

The U.S. Department of Air Force and the Army are planning a modernization and enhancement of the Joint Pacific Alaska Range Complex (JPARC) pursuant to the Department of Defense joint training needs to allow for optimum use of land, air, and physical assets. This project is considered an undertaking subject to review under Section 106 of the National Historic Preservation Act.

The *Environmental Impact Statement (EIS) for the Modernization and Enhancement of Ranges, Airspace, and Training Areas in the JPARC in Alaska* contains six definitive proposals. The Air Force has completed Section 106 consultation for three projects: Fox 3 Military Operating Area (MOA) Expansion and New Paxon MOA, Realistic Live Ordnance Delivery (RLOD), and Night Joint Training (NJT) proposals. The U.S. Army Garrison Fort Wainwright is conducting Section 106 consultation for the remaining three projects.

The Alaska State Historic Preservation Office (AK SHPO) concurs, Attachment 1, with the determination that a finding of No Historic Properties Affected is appropriate for the RLOD proposed action. Survey results are attached, Attachment 2, that supports this finding.

If you have any questions or require additional information, you may contact Erin Marynak by phone at (907) 552-3791 or by e-mail at erin.marynak.ctr@us.af.mil.

Sincerely


PATRICK O. MOYLAN, Colonel, USAF
Vice Commander

Attachments:

1. AK SHPO Concurrence
2. Realistic Live Ordnance Delivery Survey Results

Guardian of the North

***JPARC Modernization and Enhancement
Environmental Impact Statement***



PACIFIC AIR FORCES
ELEVENTH AIR FORCE
JOINT BASE ELMENDORF-RICHARDSON, ALASKA 99506

OCT 12 2012

Colonel Patrick O. Moylan
Eleventh Air Force
Vice Commander
9480 Pease Avenue, Suite 118
Joint Base Elmendorf-Richardson Alaska 99506

Mr. Donald Adams, President
(or current President)
Native Village of Tetlin (IRA)
P.O. Box 797
Tetlin Alaska 99779

Dear President Adams

The U.S. Department of Air Force and the Army are planning a modernization and enhancement of the Joint Pacific Alaska Range Complex (JPARC) pursuant to the Department of Defense joint training needs to allow for optimum use of land, air, and physical assets. This project is considered an undertaking subject to review under Section 106 of the National Historic Preservation Act.

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Sincerely


PATRICK O. MOYLAN, Colonel, USAF
Vice Commander

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PACIFIC AIR FORCES
ELEVENTH AIR FORCE
JOINT BASE ELMENDORF-RICHARDSON, ALASKA 99506

OCT 12 2012

Colonel Patrick O. Moylan
Eleventh Air Force
Vice Commander
9480 Pease Avenue, Suite 118
Joint Base Elmendorf-Richardson Alaska 99506

Mr. Roy Denny, President
(or current President)
Tanacross Village Council
P. O. Box 76009
Tanacross Alaska 99776

Dear President Denny

The U.S. Department of Air Force and the Army are planning a modernization and enhancement of the Joint Pacific Alaska Range Complex (JPARC) pursuant to the Department of Defense joint training needs to allow for optimum use of land, air, and physical assets. This project is considered an undertaking subject to review under Section 106 of the National Historic Preservation Act.

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Sincerely


PATRICK O. MOYLAN, Colonel, USAF
Vice Commander

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***JPARC Modernization and Enhancement
Environmental Impact Statement***



PACIFIC AIR FORCES
ELEVENTH AIR FORCE
JOINT BASE ELMENDORF-RICHARDSON, ALASKA 99506

OCT 12 2012

Colonel Patrick O. Moylan
Eleventh Air Force
Vice Commander
9480 Pease Avenue, Suite 118
Joint Base Elmendorf-Richardson Alaska 99506

Mr. James Mery, Senior Vice President
Doyon Limited
1 Doyon Place, Suite 300
Fairbanks Alaska 99701

Dear President Mery

The U.S. Department of Air Force and the Army are planning a modernization and enhancement of the Joint Pacific Alaska Range Complex (JPARC) pursuant to the Department of Defense joint training needs to allow for optimum use of land, air, and physical assets. This project is considered an undertaking subject to review under Section 106 of the National Historic Preservation Act.

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Sincerely


PATRICK O. MOYLAN, Colonel, USAF
Vice Commander

Attachments:

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Guardian of the North



PACIFIC AIR FORCES
ELEVENTH AIR FORCE
JOINT BASE ELMENDORF-RICHARDSON, ALASKA 99506

OCT 12 2012

Colonel Patrick O. Moylan
Eleventh Air Force
Vice Commander
9480 Pease Avenue, Suite 118
Joint Base Elmendorf-Richardson Alaska 99506

Mr. Teddy Northway, President
(or current President)
Northway Village
P.O. Box 516
Northway Alaska 99764

Dear Mr. Northway

The U.S. Department of Air Force and the Army are planning a modernization and enhancement of the Joint Pacific Alaska Range Complex (JPARC) pursuant to the Department of Defense joint training needs to allow for optimum use of land, air, and physical assets. This project is considered an undertaking subject to review under Section 106 of the National Historic Preservation Act.

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Sincerely


PATRICK O. MOYLAN, Colonel, USAF
Vice Commander

Attachments:

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Guardian of the North

L.3 ESA CONSULTATION

L.3.1 U.S. Fish and Wildlife Service



United States Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
Fairbanks Fish and Wildlife Field Office
101 12th Avenue, Room 110
Fairbanks, Alaska 99701



March 4, 2011

ALCOM Public Affairs
9480 Pease Avenue, Suite 120
JBER, AK 99506

Re: Scoping Comments for JPARC Modernization and Enhancement EIS

Dear Lieutenant General Atkins:

Thank you for the opportunity to learn of the Joint Pacific Alaska Range Complex (JPARC) Modernization and Enhancement Environmental Impact Statement (EIS) at the public scoping meetings and at the Fairbanks agency meeting on January 21, 2011.

We understand your intent is to prepare an EIS that evaluates the potential environmental consequences associated with modernizing and enhancing current military ground and air training assets in Alaska. The actions would expand and/or establish new Military Training Areas (MOAs), restricted airspace, airspace corridors, expand access to training areas, and develop new ranges and facilities to support training activities.

We also appreciate the invitation to serve as a cooperating agency for this EIS. Instead, as I explained during our initial December 8, 2010 teleconference, the U.S. Fish and Wildlife Service (Service) would prefer to serve as a participating agency for this EIS, and has determined that the Fairbanks Fish and Wildlife Field Office will serve as the primary point of contact that will coordinate reviews and comments for the Service in Alaska.

Herein we identify environmental resources for consideration in the EIS, and convey any initial concerns regarding those resources. We look forward to working with you and your environmental planners to more fully identify issues and potential impacts for consideration in the environmental impact analysis process.

Endangered Species:

Currently, one federally-listed species under the jurisdiction of the Service occurs within the vicinity of the JPARC. That species is the short-tailed albatross (*Phoebastria albatrus*), which is listed as endangered under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq; 87 stat 884, as amended; ESA). It is a pelagic seabird whose range includes the Gulf of Alaska, and it typically occurs in the project area during the April through October time period. This endangered

species occurs in the area of the Proposed Action #9: Missile Live Fire for AIM-9X and AIM-120 in the Gulf of Alaska.

In 2010 the Service reviewed proposed Navy Training Activities in the Gulf of Alaska (two 3-week activity periods from April through October) and determined the activities were not likely to adversely affect endangered short-tailed albatrosses. For that review the Navy produced a Gulf of Alaska Navy Training Activities Biological Evaluation (BE), dated February 24, 2010 for the Temporary Maritime Activities Area. At this point the Service does not know specifically how the training activities proposed for this EIS compare, but recommend that the JPARC review the Protective Measures developed for short-tailed albatross in that 2010 Gulf of Alaska Navy Training BE to learn what steps can be taken to avoid adverse effects to that endangered species. The JPARC will need to evaluate of the effects of the Gulf of Alaska activities on the short-tailed albatross.

Migratory Birds:

Interior Alaska is significant nationally for its concentrations of migratory birds that breed, nest, and molt here during the brief spring and summer months. The Service has a significant amount of information from systematic aerial surveys since 1957 about the location and timing of nesting birds in Interior Alaska, and we look forward to sharing that information with you for the preparation of your Alternatives and production of your EIS. For example, the Service annually conducts the Alaska-Yukon Waterfowl Breeding Population Survey (for example, Mallek and Groves 2008) and also surveys on specific species, such as the Alaska Trumpeter Swan Status Report (Conant et al. 2007).

For the purposes of this scoping letter, we wish to make you aware of the high concentrations of breeding birds in many of the MOAs and Training Areas within the JPARC. As one example, aerial surveys in 2005 of the Gulkana area (which encompasses most of the Proposed Fox 3 MOA Expansion and New Paxson MOA) detected 2,440 breeding pairs of trumpeter swans, and 1,228 swan cygnets (chicks) (Conant et al. 2007), with Figure 1 showing the density of trumpeter swans during the spring and summer season in that area. Many other waterfowl also nest, molt and raise their young in that area.

The Service has concerns about the proposed low altitude flight training areas and their potential to disturb nesting and molting birds. The Service can provide years of breeding waterfowl survey information for much of the JPARC area, and can make specific timing recommendations for your activities to avoid conflicts with breeding birds.

Eagle Nests:

Bald and Golden Eagles, as well as their nests, are protected from take, including disturbance. The Service maintains a raptor-nest database that can provide an indication of past nest activity in proposed project areas. We would be happy to consult this database for your site-specific projects. This database, however, cannot guarantee future nesting activity, so we recommend conducting nest surveys in the early spring prior to construction and when the nests are active and easily identified. Should an active eagle nest be observed in the project area at any time during the project, we recommend reviewing our eagle permit website

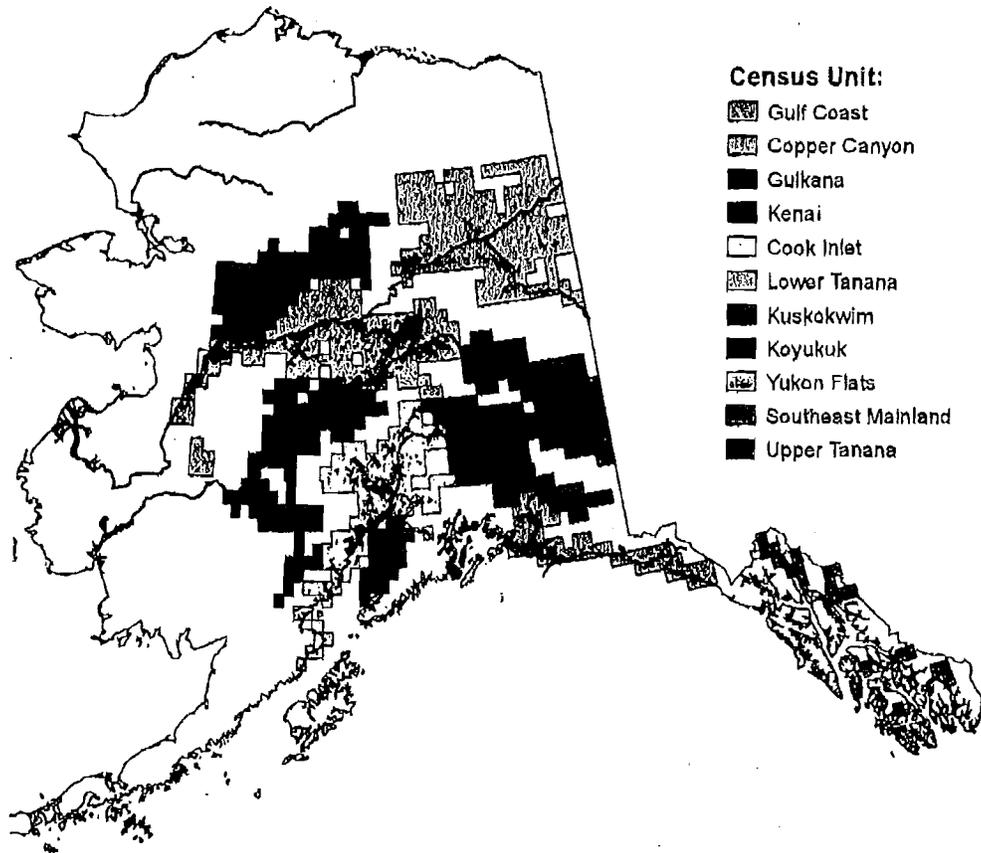


Figure 1. Density of Trumpeter Swans during the spring and summer of 2005 (Conant et al. 2007). Each of the 7,787 points represents a swan observation.

(<http://alaska.fws.gov/eaglepermit/index.htm>), and contacting our Regional Office (permitsR7MB@fws.gov or 907-786-3685) if you have questions.

Land Clearing:

Migratory bird nests, eggs or nestlings could be destroyed if work is conducted in nesting habitats during the spring and summer breeding season. Please refer to our recommended time periods, which vary by region, for avoiding vegetation clearing to protect nesting migratory birds (http://alaska.fws.gov/fisheries/fieldoffice/anchorage/pdf/vegetation_clearing.pdf). The Migratory Bird Treaty Act prohibits the willful killing or harassment of migratory birds. When practical for authorized military readiness activities, and for all other activities, the Service recommends that clearing, excavation and fill activities in potentially suitable nesting habitats be completed prior to

the nesting season to avoid impacts to breeding migratory birds. If this is not possible, then other measures for avoiding impacts to breeding migratory birds should be initiated. For example, vegetated areas could be cleared prior to the nesting season. This would render the area unsuitable for breeding birds prior to their arrival and facilitate work during the breeding season without impacts to birds. However, we do not recommend large areas (greater than 5 acres) be stripped of vegetation more than one month prior to initiating work, which could result in even greater damage caused by excessive erosion.

We no longer recommend conducting nest surveys during the breeding season as a way to avoid adversely impacting breeding birds. Because nesting birds are secretive, identifying active nests is very difficult, so there is a high likelihood that active nests will be undetected. Nests surveys are a poor substitute for project scheduling that avoids threatening nesting birds. If work cannot be conducted outside the nesting season, or the area cannot be made unsuitable for nesting prior to the breeding season, the project sponsor should demonstrate how they are preventing the willful killing or harassment of migratory birds.

Impacts to Wetlands, Fish, Wildlife and Other Habitats:

Quantifying temporary, indirect and permanent impacts for on-the-ground projects such as Proposed Actions 6 and 8 (enhanced access to ground maneuver space, and intermediate staging bases) are not possible at this stage in the planning process, however, we offer the following as ways to avoid and minimize potential adverse impacts.

Wetlands and Riparian Areas: The Service considers fens, emergent wetlands, ponds, sloughs, watercourses, and riparian areas as higher-value habitat types where disturbance should be avoided or minimized. Disturbance should also be avoided or minimized in other habitats, such as the relatively abundant scrub-shrub wetlands, but the impacts to fish and wildlife are relatively less and will be reflected in our recommendations to the Corps for wetland permits.

Fish and Wildlife: We typically recommend wider buffers for anadromous fish streams than for resident fish streams (e.g., http://alaska.fws.gov/fisheries/fieldoffice/fairbanks/pdf/1_nmzcover.pdf). The Service recommends that design criteria for all stream crossings focus on protecting stream health by maintaining riparian and floodplain processes. All new constructed crossings should maintain the normative physical processes within the stream-floodplain-riparian corridor by: 1) promoting natural sediment transport patterns, 2) providing unaltered fluvial (riverine) debris movement, and 3) maintaining or restoring functional continuity and connectivity of the stream-floodplain-riparian corridor.

To avoid and minimize impacts to aquatic and riparian habitats, all crossings should consist of a bridge or culvert that spans the floodplain, thereby providing for long-term dynamic channel stability, retention of existing spawning habitats, maintenance of food (benthic invertebrate) production, and minimization of risk of failure. All crossing designs should be based on site-specific information such as: estimates of peak discharge, flow velocities and patterns; channel stability; suspended sediment and bed load transport; flooding regime (50-year to 100-year flood frequency and magnitude); cross-section profiles of channel morphology; and water surface elevations.

The Service would like to emphasize the importance of providing free and efficient fish passage for all life stages of fish, while also providing for hydrologic functions such as flushing flows, sediment bed loads, channel meandering and wetland integrity. Longitudinal connectivity (between upstream and downstream sections of a river), vertical connectivity (between the surface and ground water), and lateral connectivity (between a river and its floodplain and surrounding slopes) must be sustained to allow for proper hydrologic functioning.

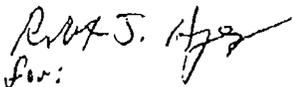
Mitigation:

Service policy regarding impacts to fish and wildlife habitat includes first avoiding, then minimizing, and finally compensating for the remaining unavoidable impacts. These impacts include direct, indirect and temporal impacts. If there are unavoidable impacts for proposed projects, then the Service recommends compensatory mitigation for the unavoidable impacts by restoring or permanently protecting equal or higher-value wetlands nearby. The type and extent of recommended mitigation for these impacts would normally be based upon the scarcity and value of the wetland habitat impacted by the proposed project as well as any associated indirect or temporal impacts caused by the project. For the more common wetlands, like scrub-shrub, we typically recommend lower compensation ratios. For higher-value wetlands, such as wetlands associated with watercourses, the Service recommends a strategy of no net loss when practicable. If this is not possible, then we typically recommend higher compensation ratios. Since habitat protection does not meet our national goal of no net loss of wetlands (i.e., no new wetlands are created or restored to offset the proposed loss of wetlands), we typically recommend higher mitigation ratios to help offset the consequences of not meeting this goal when habitat preservation is used for compensatory mitigation. This includes recommending higher mitigation ratios for in-lieu fee programs that only provide habitat protection.

Conclusion:

We look forward to sharing any information we may have regarding fish and wildlife resources in the vicinity of your activities. If you have any questions regarding this issue please contact Charleen Veach at 907/456-0272 or charleen_veach@fws.gov.

Sincerely,



Jewel Bennett, Chief
Conservation Planning Assistance Branch

cc: Ann Rappoport, USFWS, Anchorage
Christy Everett, USACE, Fairbanks

Citations:

Conant, B., J.I. Hodges, D.J. Groves, and J.G. King. 2007. Alaska Trumpeter Swan Status Report 2005. U.S. Fish and Wildlife Service, Waterfowl Management, Juneau, Alaska. 49 pp.

Mallek, E.J., and D. J. Groves. 2008. Alaska-Yukon Waterfowl Breeding Population Survey.

L.3.2 State of Alaska Department of Fish and Game

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

SEAN PARNELL, GOVERNOR

333 Raspberry Road
Anchorage, AK 99518-1599
PHONE: (907) 267-2228
FAX: (907) 267-2433

March 1, 2011

ALCOM Public Affairs
9480 Pease Ave, Ste 120
JBER, AK 99506

Subject: Issue Identification – Joint Pacific Alaska Range Complex

The Alaska Department of Fish and Game (Department) reviewed the December 8, 2010, "Department of the Air Force and U.S. Army; Notice of Intent To Prepare an Environmental Impact Statement (EIS) for the Modernization and Enhancement of Ranges, Airspace, and Training Areas in the Joint Pacific Alaska Range Complex in Alaska". We understand the intent of the EIS is to analyze the environmental effects and consequences of the proposed changes and their alternatives. This will include the environmental consequences to airspace, noise, safety, biological resources, socioeconomics, transportation, cultural resources, water resources, wetlands, air quality, land use, hazardous materials, recreation and visual resources, environmental justice and risks to children, subsistence, and cumulative impacts.

The Department appreciates the need and importance for the military to conduct training exercises that, as closely as possible, mimic battlefield conditions. The training conducted can save lives and contribute to the success of the military's national defense mission. Through the development of the EIS, we would like to work with the military to provide and assist in the interpretation of data where possible, and in understanding the area for fish, wildlife, their use and management.

The Department has specific concerns related to the potential impacts of the proposal to wildlife, the ability to perform management and research related to the management and research of fish and wildlife, and the ability of the public to access the area for activities related to the use of fish and wildlife for general and subsistence purposes. The expansion of low-level flight training exercises and other large-scale training exercises (including live fire) across the area under consideration could disturb wildlife in Game Management Units (GMU) 13 and 20. This area comprises one of the most popular and productive ecosystems in the state for the purposes of hunting, trapping, fishing and the harvests of trees, plants and other vegetation for subsistence and general use by the public.

The following comments are provided to assist the planning process in identifying issues for analysis during the EIS process.

Potential Effects to Wildlife

The frequency of low-level flights as indicated in the EIS, and other large-scale training related noise could be a disturbance factor for wildlife of all species. Land mammals such as moose, caribou, bears, wolves and Dall sheep can experience reduced productivity due to disturbance during the

critical periods of birthing, breeding and use of wintering areas. Avian species such as waterfowl and raptors are especially vulnerable during spring and fall migration. Repeated low-level flight disturbance may also alter activity patterns, increasing vulnerability of both land and avian species to predation, particularly for young of the year. Additionally, to our knowledge, impacts of F-22 jet over flights to wildlife have not been evaluated, although noise generated by the F-22 is likely comparable to most aircraft of its class and impacts would likely be similar. This presents concerns, especially given the large expansion of the MOA.

The Nelchina Caribou Herd (NCH) has a very large range within Interior Alaska, and encompasses a significant portion of the area under consideration. The calving grounds of the NCH are relatively concentrated, with the Proposed Fox 5 area centered over it. The NCH typically concentrates in the eastern Talkeetna Mountain foothills from May through July. The NCH moves efficiently throughout this area to utilize new, highly nutritious emergent vegetation and to avoid insects. Caribou calves are born during the month of May, and for their first two months are highly vulnerable to disturbance. External stress during this period can affect caribou physical condition, reducing their survival and productivity. Low-level flight training exercises or other large scale training exercises (including live fire exercises, if any) in this mountainous-foothill terrain could affect the conservation of this herd, and impair the ability of those who rely on it for consumptive and other uses.

The proposed Paxson MOA with its floor of 500 ft AGL may create a disturbance for Dall sheep in the Delta River canyon. The mountainous terrain north of Black Rapids is an important Dall sheep lambing area and important ewe/lamb habitat. Low-level jet aircraft flights, large scale training and live-fire exercises through this area could have the potential to increase lamb mortality.

Human generated waste can attract wildlife, particularly bears, cause them to become habituated to humans, and result in negative interactions. With the addition of up to 1000 ground-based troops using the training area, consideration of how to deal with human generated waste and reducing the potential for negative interactions with wildlife should be analyzed in detail.

Potential Effects to the Departments Administrative Activities for Management and Research Purposes.

The Department is responsible for the sustainability of all fish and wildlife in the State of Alaska, regardless of land ownership or designation, and has the authority, jurisdiction, and responsibility to manage, control, and regulate fish and wildlife populations – including for subsistence purposes – unless specifically preempted by federal law. To perform these responsibilities, the Department has extensive management and research programs that include frequent access by staff to the lands, water, and airspace throughout the State, including the proposed JPARC expansion area.

After reviewing the information provided, Department staff identified concerns related to their ability to perform management and research activities for the administration of fish and wildlife resources in the area. These activities could be altered or potentially compromised by implementation of proposed flight and access restrictions and include potential safety issues due to air space and ground level separation and conflicts with military and Department aircraft operating simultaneously in the area. Additional concerns include restrictions related to the access and use of flight corridors, restrictions involving entry into areas for research and management purposes by air and ground access, and the poor radio communications capabilities that currently exist between civilians and the military in remote areas.

These concerns are exemplified by a review of the Department's extensive research and management activities for fish and wildlife in the Nelchina and Copper River basins in GMU 13. This area, almost completely encompassed by the JPARC expansion areas, comprise one of the most

popular and productive ecosystems in the state for the purposes of hunting, trapping, fishing, and berry picking; as well as other traditional and cultural uses. The area is easily accessed from Fairbanks, Anchorage, the Matanuska-Susitna Valley and Copper River basin communities via the Parks, Richardson, Glenn, and Denali highways. Common big game species in this area include black bear, brown bear, wolves, wolverine, moose, caribou, and sheep, and extensive fisheries resources consisting of both resident and anadromous species. Monitoring and managing the vast fish and wildlife resources in this area takes a tremendous amount of aerial survey work using both fixed wing and rotor aircraft throughout the year. Surveys are typically flown between 500' and 7000' above ground level (AGL) and are dependent on being able to rapidly deploy during good weather conditions, when they exist, and the ability to radio track, capture or make direct observations wherever animals of interest are located.

The Department is conducting long-standing, comprehensive management and research projects for moose in portions of GMU 20. Proposed restricted access corridors and expansion within GMU 20 would impair the ability of the Department to continue these projects, increase costs due to the need to circumvent airspace, schedule additional flights and cause researchers to reduce, abandon or forgo future projects monitoring moose or other species if predictable, adequate access to airspace cannot be assured.

Without continued free access to the airspace in the region, particularly below 7,000' (AGL), necessary fish and wildlife population management in this area could be reduced. A reduction in the quantity and quality of data could result in a need to manage species on a more conservative basis, leading to fewer opportunities for harvest, including subsistence harvest. Of particular concern is the active management of the Nelchina Caribou Herd, GMU 13 and 20 moose and wolf populations, and Gulkana River Chinook and sockeye salmon, all of which are highly sought by the public.

Potential Effects to Public Uses

As noted above, the JPARC expansion areas and proposed corridors encompass some of the most popular and productive ecosystems in the state for the purposes of hunting, trapping, fishing, and the harvests of trees, plants and other vegetation for subsistence and general use by the public. The area includes the Nelchina Public Use Area (AS 41.23.040), established by the legislature in 1985 to protect fish and wildlife habitat for continuing purposes, perpetuate and enhance public enjoyment of fish, wildlife and their habitat and to perpetuate and enhance general public recreation in a quality environment.

Public use of this area is an important regional component for outdoor activities. The use is extensive, occurs on a year round basis with access via highway vehicle, ORV, boat, snowmachine and aircraft. In GMU 13, for example, in 1996-97, 6135 hunters sought moose (933 accessing the area by aircraft), and 19,397 caribou hunters used the area. From 2004-08, the annual average angler use was; Chena River – 20,235 days fished, Tangle Lakes complex – 4,108 days fished, Gulkana River (includes Crosswind Lake) – 19,812 days fished, Tyone River drainage (include Lake Louise and Susitna Lake) – 6,630 days fished.

Proposed access restrictions that could accompany the expansion may have a chilling effect on the ability of the public to freely use and enjoy the area. Public access and spontaneous use associated with good weather days could be curtailed, as would public access of desired areas due to corridor closures, the need to request entry authorizations, and other restrictions to airspace, necessitating the public to incur additional costs in fuel and time to avoid military operations. Additionally, Alaska is notorious for poor weather related flying conditions and the ability of private pilots to comply with flight restriction under poor flying conditions may pose a hazard to both military and private pilots operating in the area.

With extensive, widely dispersed, year round public use of the area, low-level jet aircraft flights and large scale training exercises could have the potential to place the general public and the military in close proximity, resulting in concerns for public safety through unintentional contact.

The entire expansion area also encompasses a well-developed remote cabin system, often centered on lakes and rivers, with both year round and seasonal residents. These residents could expect to experience visual and sound disturbance associated with training exercises. Access to these cabins could be disrupted by the proposed flight restrictions.

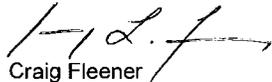
Subsistence uses within the JPARC area is also extensive and consists of the traditional and cultural uses of fish, wildlife and plants harvested throughout the year. The use of these resources is dependent on their continued sustainability and access. Throughout the planning process, we recommend holding meetings in local area communities to understand the effect of the proposed actions on subsistence uses.

Information Development and Analysis

Through the EIS process the Department encourages the development, presentation and analysis of additional data to assist in informing the decision making process. We recommend detailed maps and information be developed showing proposed flight corridors, restricted areas, seasonality of use and areas where air and ground training may be conducted, including live fire exercises. These uses should then be analyzed in relation to the primary issues we have identified; potential affects to wildlife; potential affects to the Departments management and research activities and effects to the public's ability to access and use the area.

We are interested in working with the Department of Defense during the development of the EIS. Department staff have expertise regarding fish, wildlife and their use within the area and may be able to assist in the evaluation of spatial and temporal management options to facilitate the public's use of the area as well as ensuring our continued research and management efforts to ensure the sustainability of the resources in the area. Please contact Brad Palach at brad.palach@alaska.gov or 267-2145 to assist in coordinating your efforts.

Sincerely,



Craig Fleener
Deputy Commissioner
Department of Fish and Game
State of Alaska

L.4 SHPO CONSULTATION



HEADQUARTERS
ALASKAN COMMAND (ALCOM)
JOINT BASE ELMENDORF-RICHARDSON, ALASKA 99506

January 11, 2012

Colonel Nathan C. Mooney II
Headquarters Alaskan Command
9480 Pease Avenue, Suite 303
Joint Base Elmendorf-Richardson Alaska 99506-2200

Ms. Judith Bittner
Alaska State Historic Preservation Officer
Office of History and Archaeology
Department of Natural Resources
550 West 7th Avenue, Suite 1310
Anchorage Alaska 99501

Dear Ms. Bittner

The Alaskan Command (ALCOM) requests your concurrence with the finding of No Historic Properties Affected for three proposed actions: Fox 3 Military Operations Area (MOA) Expansion and New Paxon MOA, Realistic Live Ordnance Delivery (RLOD), and Night Joint Training (NJT).

The military land ranges, maritime training areas, and airspace that compose the Joint Pacific Alaska Range Complex (JPARC) provides a critical training and testing environment to the U.S. Department of Defense (DOD) units based in Alaska. Pursuant to guidance and philosophy found in DOD Directive 1322.18, *Military Training*, and in the U.S. Pacific Command's Alaska Joint Training Program of Excellence, ALCOM has coordinated with the Services (Army, Navy, and Air Force) to develop a strategy to identify joint training opportunities in Alaska, to maximize the utilization of scarce training resources, and to improve joint context training at all levels.

The *Environmental Impact Statement for the Modernization and Enhancement of Ranges, Airspace, and Training Areas in the Joint Pacific Alaska Range Complex in Alaska* contains six definitive proposals. Of the six, the U.S. Army Garrison Fort Wainwright, Alaska will be conducting any needed Section 106 consultation for three of the projects affecting Army-managed lands. The Air Force will be conducting any additional Section 106 consultation for the three remaining projects that are referenced in this letter. The following potential effects have been consolidated from these proposals:

Fox 3 MOA Expansion and New Paxon MOA

Area of Potential Effects: The Area of Potential Effects for this proposal consists of the land beneath the proposed Fox 3 MOA expansion and the proposed new Paxon MOA [Attachment 1].

Noise: Scientific studies of the effects of noise and vibration on historic properties have considered potential impacts on historic buildings, prehistoric structures, water tanks, archaeological cave/shelter sites, and rock art. These studies have concluded that overpressures generated by supersonic overflight were well below established damage thresholds and that

Guardian of the North

subsonic operations would be even less likely to cause damage. Thus, resources are unlikely to be affected by aircraft overflights.

Ground Disturbance: It is expected that there would be minimal ground disturbance associated with the action. The additional dry targets proposed would be trailers and nonfunctional threat vehicles that would be located on existing highway pullouts, campgrounds, gravel pits, or similar temporary locations. No new construction would be associated with this action.

Cultural Resources: There are no National Register-listed properties beneath the proposed Fox 3 expansion or the proposed new Paxon MOA.

Realistic Live Ordnance Delivery

Area of Potential Effects: The Area of Potential Effects for the proposed RLOD undertaking consists of the Oklahoma Impact Area and two new temporary target areas within Donnelly Training Area, the Blair Lakes Impact Area of Tanana Flats Training Area, and the land beneath the existing Eielson MOA where the expanded or new restricted areas would be located [Attachment 2]. Similar to the proposed Fox 3 MOA expansion and the proposed new Paxon MOA described above, the potential for the undertaking (establishment of expanded or new restricted areas and their training use) to have adverse effects on historic properties is very low.

Noise: The annual average noise levels under the proposed action are not expected to noticeably change. Changes in instantaneous noise levels of less than 3 decibels (dB) are typically not noticeable in non-laboratory conditions, nor would the noise be sufficient to damage any archaeological or historical architectural sites. Scientific studies of the effects of noise and vibration on historic properties have considered potential impacts on historic buildings, prehistoric structures, water tanks, archaeological cave/shelter sites, and rock art. These studies have concluded that overpressures generated by supersonic overflight were well below established damage thresholds and that subsonic operations would be even less likely to cause damage.

Ground Disturbance: There would be no significant construction activities associated with the RLOD proposed action. Ground disturbance would result from the establishment of two new target areas within Donnelly Training Area and their training use for the delivery of inert ordnance.

Cultural Resources: There are no National Register-listed properties beneath the Realistic Live Ordnance Delivery proposed action. The general locations of the proposed target areas will be surveyed for the presence of cultural resources, and the final target sites and impact areas will be established where no cultural resources are located. Should resources of cultural significance be discovered, range officers would alert US Army Garrison Fort Wainwright's Cultural Resource Manager.

Night Joint Training

Area of Potential Effects: The Area of Potential Effects for the proposed NJT undertaking consists of the existing Special Use Airspace (SUA) [Attachment 3]. Similar to the proposed undertakings described above, the potential for the NJT undertaking (extending operating hours to allow after-dark events for the Air Force during major exercises) to have adverse effects on historic properties is very low, and identification efforts were limited to searches of the records of the National Register of Historic Places and National Historic Landmarks Program.

Noise: Noise levels experienced on the ground would be exactly the same as noise levels experienced currently, but noise events would occur at later times. Several noise-sensitive areas have been established in areas beneath JPARC SUA, and pilots avoid these areas during training.

Ground Disturbance: There would be no ground effects associated with the NJT proposed undertaking.

Cultural Resources: Several National Register-listed properties underlie JPARC SUAs. However, since the proposal does not involve any changes in the structure or dimensions of military airspace, there would be no new impacts on cultural resources.

Based on the nature of the proposed actions, no historic properties will be affected within the Areas of Potential Effect for the Fox 3 MOA Expansion and New Paxon MOA, Realistic Live Ordnance Delivery, and Night Joint Training proposals. Pursuant to Section 106 of the National Historic Preservation Act of 1966 (16 USC 470), and according to the regulations governing Section 106, 36 CFR Part 800 "Protection of Historic Properties," a determination is made of No Historic Properties Affected.

All correspondence associated with this consultation will be included in the Administrative Record of the EIS. The Draft EIS is scheduled for release on March 30, 2012. If you have any questions regarding the proposals or regarding this request, please feel free to contact Mr. Jamie Spell at (907) 552-1695, LTC Russell Price at (907) 552-3683, or Ms. Erin Marynak at (907) 552-3791.

Sincerely



NATHAN C. MOONEY II, Colonel, USAF
Director for Logistics

Attachments:

1. Fox 3 MOA Expansion and New Paxon MOA Proposal
2. Realistic Live Ordnance Delivery Proposal
3. Night Joint Training Proposal

STATE OF ALASKA

**DEPARTMENT OF NATURAL RESOURCES
DIVISION OF PARKS & OUTDOOR RECREATION
OFFICE OF HISTORY AND ARCHAEOLOGY**

SEAN PARNELL, GOVERNOR

550 WEST 7TH AVENUE, SUITE 1310
ANCHORAGE, ALASKA 99501-3565

PHONE: (907) 269-8721
FAX: (907) 269-8908

January 23, 2012

File No.: 3130-1R AIR FORCE

Nathan C. Mooney II, Colonel, USAF
Director for Logistics
Headquarters Alaskan Command
9480 Pease Avenue, Suite 303
JBER, AK 99506-2200

Subject: Alaskan Command (ALCOM) Three Proposed Actions: Fox 3 Military Operations Area (MOA) Expansion and New Paxon MOA, Realistic Live Ordnance Delivery (RLOD), and Night Joint Training (NJT)

Dear Colonel Mooney:

The Alaska State Historic Preservation Office (AK SHPO) received your correspondence (dated January 11, 2012) on January 12, 2012. We also greatly appreciate the information provided to our staff by Ms. Erin Marynak regarding the subject undertakings during a conference call on January 18.

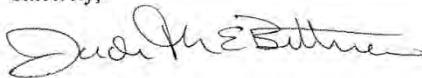
Following our review of the documentation provided, we concur with your determination that a finding of **no historic properties affected** is appropriate for the Fox 3 MOA Expansion and New Paxon MOA and the Night Joint Training. We understand that these undertakings will involve no new ground disturbance and there would be no substantive change in noise levels that could potentially affect historic properties.

As discussed with Ms. Marynak on January 18, we are unable to concur with your proposed finding of effect for the Realistic Live Ordnance Delivery (RLOD) undertaking at this time. As there are plans to survey the proposed target areas for historic properties, we would greatly appreciate receiving the results of that inventory prior to providing our concurrence.

Should unidentified archaeological resources be discovered in the course of the projects, work must be interrupted until the resources have been evaluated in terms of the National Register of Historic Places eligibility criteria (36 CFR 60.4) or the Alaska Landmarks Register in consultation with our office.

Thank you for the opportunity to comment. We look forward to continued consultation on the RLOD undertaking. Please contact Shina duVall at 269-8720 or shina.duvall@alaska.gov if you have any questions or if we can be of further assistance.

Sincerely,



Judith E. Bittner
State Historic Preservation Officer

JEB:sad

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		STAFF SUMMARY		DATE: 7 February 2012
TO Director of Public Works		FROM Environmental Division-Cultural Resources		
SUBJECT: The Unmanned Aerial Vehicle Corridor Development, Digital Multipurpose Training Range Airspace Expansion, and Battle Area Complex Airspace and Footprint Expansion	ACTION OFFICER (SIGNATURE) 		SUSPENSE	
	TYPED NAME, RANK & PHONE Julie Esdale Archaeologist 361-9405			
Reason for Action:				
FACTS/DISCUSSION Section 106 of the National Historic Preservation Act requires federal agencies to consider effects undertakings may have on historic properties and provide Advisory Council on Historic Preservation an opportunity to comment. The attached is a 106 consultation letter for USAG FWA projects: The Unmanned Aerial Vehicle (UAV) Corridor Development, Digital Multipurpose Training Range (DMPTR) Airspace Expansion, and Battle Area Complex (BAX) Airspace and Footprint Expansion on Fort Wainwright, Alaska. The finding for the first two projects is No Historic Properties Adversely Affected and the finding for BAX Airspace Expansion is Historic Properties Adversely Affected .				
RECOMMENDATIONS: Sign attached letter.				
COORDINATION				
OFFICE	SIGNATURE	CONCUR	NONCONCUR	
Cultural Resources Manager		2/7/12		
Chief, Conservation		2/7/12		
Chief, Environmental Division		2/7/12		
ENCLOSURES	APPROVED (SIGNATURE) 	DISAPPROVED (SIGNATURE)		
	TYPED NAME & RANK MICHAEL T. MEEKS Director, Directorate of Public Works	TYPED NAME & RANK MICHAEL T. MEEKS Director, Directorate of Public Works		

USARAK Form 407
1 JAN 95

Office of History and Archaeology: Cultural Resources Report Coversheet
(Must Accompany All Compliance Reports Submitted to OHA/SHPO)



Office of History and Archaeology
Division of Parks & Outdoor Recreation
Alaska Department of Natural Resources
550 W. 7th Ave., Suite 1310
Anchorage, AK 99501-3565

Phone: (907) 269-8721
Fax (907) 269-8908
<http://www.dnr.state.ak.us/parks/oha/index.htm>

Was this survey/investigation (Check one): Negative Positive

Negative = no cultural resource sites were discovered or reported on.

Positive = new sites were discovered or known sites were visited and reported.

Note: Alaska Heritage Resources Survey (AHRs) numbers are **required** for reported cultural resource sites, including buildings. (Assigning an AHRs number is critical for record keeping and does not indicate whether the site has been evaluated for its historic significance. AHRs numbers can be obtained by contacting Joan Dale at 907-269-8718).

Project/Report Information:

- Report Title: USAG FWA Projects: The Unmanned Aerial Vehicle (UAV) Corridor Development, Digital Multipurpose Training Range (DMPTR) Airspace Expansion, and Battle Area Complex (BAX) Airspace and Footprint Expansion
- Report Author(s): Julie Esdale
- Report Date: February 2, 2012
- Submitting Organization/Agency: U.S. Army Garrison Fort Wainwright, Department of Public Works
- Project Name and Project Number: The Unmanned Aerial Vehicle (UAV) Corridor Development, Digital Multipurpose Training Range (DMPTR) Airspace Expansion, and Battle Area Complex (BAX) Airspace and Footprint Expansion
- Principal Investigator (PI) name: Julie Esdale

Geographic Information (attach an extra sheet or cite report page numbers if necessary)

- USGS 1:250,000 Quadrangle(s) Fairbanks, Big Delta, Mount Hayes
- USGS 1:63,360 Mapsheet(s) Fairbanks B1-B4, C1-C4, D1-D4, Big Delta A4-A6, C5-C6, D5-D6, Mount Hayes D3-D6, C4-C5.
- Meridian/Township / Range / Section (MTRS) location: (all affected sections)
Format example: "F021N018E|13-14" See attached maps
- Verbal description of survey area
(for example: "123 Acme Street," "confluence of Fish and Moose creeks," "Milepost 9-16 of the Smithville Highway")
FWA Cantonment, Tanana Flats Training Area, Yukon Training Area, and Donnelly Training Area

- Does this report contain boundary coordinates for the survey area? Yes No Page #(s) _____
- Does this report contain boundary coordinates for reported sites? Yes No Page #(s) _____
- Land owner(s): US Army Garrison Fort Wainwright
- Answer one: Acres Surveyed n/a Hectares Surveyed _____

Cultural Resources Management (CRM) Information

- List AHRs numbers of all investigated or described sites – both within and outside the survey area (attach an extra page if necessary): XMH-00274, 322, 323, 902, 903, 1071, 1333, 1360, 1364, 1365, 1366, 1369, 1377, and 1378
- Is the report part of a National Historic Preservation Act - Section 106 consultation? Yes No
- Is the report part of an Alaska Historic Preservation Act compliance consultation? Yes No
- Does the report's data support a submitting agency's determination of eligibility or effect? Yes No
- Was this report submitted to fulfill State Field Archaeology Permit requirements? Yes No
Permit No.: _____



DEPARTMENT OF THE ARMY
INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON FORT WAINWRIGHT
1060 GAFFNEY ROAD #6000
FORT WAINWRIGHT, ALASKA 99703-6000

REPLY TO
ATTENTION OF:

FEB 07 2012

Directorate of Public Works

SUBJECT: The Unmanned Aerial Vehicle (UAV) Corridor Development, Digital Multipurpose Training Range (DMPTR) Airspace Expansion, and Battle Area Complex (BAX) Airspace and Footprint Expansion

Judith E. Bittner
State Historic Preservation Officer
Office of History and Archaeology
550 West Seventh Avenue, Suite 1310
Anchorage, Alaska 99501-1365

Dear Ms. Bittner:

The US Army Garrison Fort Wainwright, Alaska (USAG FWA) has proposed three separate Joint Pacific Alaska Range Complex (JPARC) Army-related undertakings.

Project 1: UAV Corridor Development - The USAG FWA proposes to establish new restricted airspaces connecting army training areas for UAV's. This undertaking will not require any ground disturbance.

Project 2: DMPTR Airspace Expansion - The USAG FWA proposes to establish a restricted air space over the DMPTR in the Yukon Training Area (YTA) to provide better support for Joint Combined Arms Live Fire training (JCALF). The changes in the restricted airspace have no ground effects.

Project 3: BAX Airspace and Footprint Expansion - The USAG FWA proposes to establish a restricted air space over the BAX in Donnelly Training Area (DTA) east to provide better support for JCALF. The changes in the restricted airspace will require a change in the ground footprint of the BAX Surface Danger Zone.

Section 106 of the National Historic Preservation Act (NHPA) (16 USC § 470, as amended 2000) reviews of these current projects were conducted in January 2012. No historic properties will be affected by the undertakings related to Projects 1 and 2. Application of the Criteria for Adverse Effect [36 CFR 800.5(a)] indicates a finding of "No Historic Properties Adversely Affected" for the UAV Corridor Development and the DMPTR Airspace Expansion. Archaeological sites will be affected by the BAX Airspace and Footprint Expansion undertaking,

in particular, the change in the BAX Surface Danger Zone's ground footprint. Application of the Criteria for Adverse Effect [36 CFR 800.5(a)] indicates a finding of "Historic Properties Adversely Affected" for this project based on the findings outlined below. USAG FWA requests your concurrence with these findings.

Project Setting and Environment

The three proposed projects are located in and around Fort Wainwright's cantonment, YTA, DTA, and Tanana Flats Training Area (TFTA) (Figure 1).

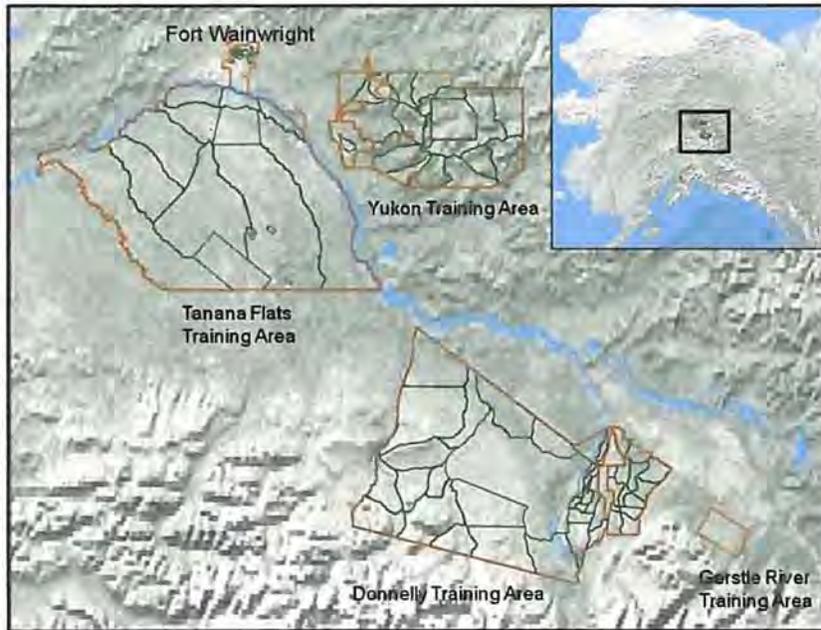


Figure 1. Location of USAG FWA and training areas in central Alaska.

The geology of Fairbanks, Alaska and the surrounding area is characterized by round even-topped, northeast to east trending ridges that rise above adjacent valley floors to an elevation of 450-915 meters above sea level (masl). Bedrock is primarily composed of Precambrian Birch Creek schist with few areas of igneous intrusions, granite and quartz diorite. Most of the area is covered by a thin (1-200 cm) mantle of micaceous aeolian silt (loess) derived from outwash plains south of the Tanana River (Muhs and Budahn 2006). Soils are typically well-drained brown silt loam associated with poorly drained silt loams in depressions and drainages (Natural Cooperative Soil Survey 1999).

Near Delta Junction and the DTA, Precambrian schist's are overlain by Cretaceous granites and Tertiary volcanic rocks. Bedrock is covered with glacial and alluvial deposits. Moraine and outwash fans are among the most common surface sediments (Holmes 1965).

Prehistoric Context

Interior Alaska has been continuously inhabited for the last 14,000 years and evidence of this continuum of human activity has been preserved within and around Fort Wainwright's training lands. Interior Alaska's ice-free status during the last glacial period provided a corridor connecting the Bering Land Bridge and eastern Asia to North America. This allowed small bands of nomadic peoples to colonize Alaska and the rest of the continent and began a period of habitation in Interior Alaska that has persisted through the entire Holocene, the arrival of European traders in the late 1810s, the Klondike gold rush of the late 19th and early 20th centuries, and the military development of the Interior during the middle of the 20th century. Fort Wainwright cantonment and training lands comprise a vast and still relatively un-surveyed region with areas of high potential for yielding evidence of this activity.

Alaska has long been regarded as the gateway to the Americas and has held archaeological interest as the possible location for the oldest archaeological sites in the New World. This is due to more than Alaska's proximity to Asia and ice-free condition at the end of the Pleistocene. Similarities between archaeological assemblages in Siberia and Alaska and the discovery of lanceolate projectile points in the muck deposits around Fairbanks in the early 1900s (which bore a resemblance to Clovis points of some antiquity in the American southwest) also sparked interest in Alaska as a source area for all Native Americans.

After initial colonization, archaeologists generally divide Interior Alaska's prehistory into three broad archaeological themes: the Paleoarctic Tradition (12,000-6,000 years ago¹), the Northern Archaic Tradition (6,000-1,000 years ago), and the Athabaskan Tradition (1,300-800 years ago) (Potter 2008.) Archeological materials from these cultures are generally limited to lithic artifacts such as projectile points, cutting tools, scrapers, waste flakes from tool manufacturing, faunal remains, and hearths.

Reconstructions of paleoecological evidence suggest that the end of the Pleistocene was marked by a warming trend in Interior Alaska that may have contributed to initial colonization of the area (Bigelow and Powers 2001). Several sites in areas surrounding Army lands demonstrate that people began living in Interior Alaska 14,000 years ago. Significant sites in the Tanana Valley dating between 14,000-12,000 years ago include Healy Lake (Bigelow and Powers 2001), Walker Road (Bigelow and Powers 2001), Swan Point (Bigelow and Powers 2001), Mead (Bigelow and Powers 2001), and Broken Mammoth

¹ All dates are given in calendar years before present.

(Bigelow and Powers 2001). There are no sites in Alaska, however, that predate the oldest sites in the contiguous United States, nor do Alaska's oldest sites resemble the Clovis culture (Bigelow and Powers 2001). This makes Alaska's earliest inhabitants questionable ancestors to all Native Americans despite genetic evidence pointing to a north-central Asian homeland (Eshleman et al. 2003). The Younger Dryas cooling event from 13,000-12,000 years ago (Bigelow and Powers 2001) may have led to a temporary population decline (Potter 2008) in the Interior before permanent colonization.

The Paleoarctic Tradition is a term is now generally used by archaeologists to refer to the earliest settled people known from all over Alaska. It was originally defined by Anderson² (Anderson 1968, 1970) as the earliest microblade-using tradition in the American arctic, with a proposed relationship to Northeast Asian late Pleistocene cultures based on similarities in these distinctive artifact types. Archaeological evidence indicates that early settlers camped on terraces, lakeshores, buttes, and bluffs. By using these locations on high ground, they could locate and track prey that included large mammals such as mammoth and bison. Evidence from the Upward Sun River Site, located just 5km southeast of TFTA, for example, demonstrates that hunter-gatherers in Interior Alaska were concentrating on bison and wapiti at the end of the Pleistocene (The Upward Sun River Site is also known for one of the earliest burials in the Americas. (Potter 2008; Potter et al. 2008; Potter et al. 2011)). It is likely that the treeless environment and nomadic nature of these peoples had a direct impact on the kinds of tools they fashioned. Stone, bone, antler, and ivory provided the most abundant material for manufacturing weapons and cutting tools. Artifacts typically associated with this culture include small stone microblades, microblade cores, bifacial projectile points, and unifacial scraping tools.

In Interior Alaska, this tradition historically included two cultural divisions called the Nenana and Denali complexes. The Nenana Complex was identified by Powers and Hoffecker from sites in the Nenana Valley (Powers and Hoffecker 1989). This complex began approximately 11,000 years ago with an artifact assemblage that included triangular or teardrop-shaped, bifacially worked, projectile points ("Chindadn" points (Cook 1969; 1975; Holmes and Cook 1999)), large unifacial chopper-like tools, and flake tools. The Nenana Complex is defined as lacking microblades, microblade cores and burins and was proposed to predate the microblade-rich Denali Complex. Many Nenana Complex archaeological sites are located in the Tanana Valley, adjacent to Fort Wainwright training lands (Broken Mammoth (Holmes 1996; Yesner et al. 1999), Chugwater (Lively 1996), Donnelly Ridge (West 1967; 1996, Donnelly Ridge is located in DTA), Healy Lake (Cook 1989), Mead (Holmes 2007) and Swan Point (Holmes et al. 1996; Holmes 1998; 2007)).

² Anderson called it the "American Palaeoarctic Tradition" but most researchers use the shortened version.

The Denali Complex, dated roughly to 10,500 to 8,000 years ago, was originally defined by West (West 1967; 1975) and includes distinctive wedge-shaped microblade cores, core tablets and their derivative microblades, large blades, biconvex bifacial knives, certain end-scrapers forms, and burins. West later defined the Denali Complex as a regional variant of the American Paleoarctic Tradition (West 1981). Denali sites in the vicinity of Fort Wainwright training lands include Mt. Hayes (West 1996), Swan Point (Holmes et al. 1996; Holmes 1998; 2007), and Gerstle River (Potter 2001). At least one site in the TFTA (XMH-2043) has also been dated to this period.

The relationship between the proposed Nenana and Denali complexes is as of yet unresolved. As discussed above, some researchers view the Nenana Complex as a bifacial industry that predates the microblade-based Denali Complex. However, current research at sites such as Swan Point and Broken Mammoth indicates that microblades and burins were used by the earliest known cultures in Interior Alaska, with a later co-occurrence with Chindadn points—the defining artifact type of the Nenana complex. Although some archaeologists still believe that there is a cultural distinction between the Nenana and Denali complexes (e.g. Dumond 2001), the general understanding from Interior Alaskan archaeologists is that there is a behavioral explanation for the presence or absence of microblades in different assemblages (Holmes 2001; Potter 2008; Yesner and Pearson 2002). Moreover, both Nenana and Denali technology persist in central Alaska throughout the Holocene (Bever 2006).

Site density declined in the areas around Fort Wainwright in the early Holocene, suggesting a slight depopulation during a period of climate change which initiated the widespread establishment of spruce forests (Potter 2008). The boreal forest in Interior Alaska was established by 8000 years ago (Bigelow and Powers 2001). Sites from this time period are less well publicized than the older sites, but include Houdini Creek (circa 8600 years old), Hurricane Bluff (c. 9800 years old), Lucky Strike (c. 8500 years old), Gerstle River (c. 10,000 years old), and the Campus Site (c. 7700 years old) (Pearson and Powers 2001, Potter et al. 2007, Potter 2008). Bison, wapiti, and birds were the most important subsistence game during this period (Potter 2007; Potter 2008).

Site density increased again after about 6000 years ago in Interior Alaska (Potter 2008). This population increase coincides roughly with the Northern Archaic tradition and the appearance of side-notched projectile points. Anderson originally defined the Northern Archaic tradition to specifically address notched point bearing stratigraphic horizons that did not contain microblades at the Onion Portage site in northern Alaska (Anderson 1968). Alaskan notched points were generally similar to Archaic-age dart points in the contiguous United States. Time has shown middle Holocene assemblages in Alaska to be quite diverse, however, and it is questionable whether this trait is related to southern forms or if it is a reliable indicator of cultural affiliation (Clark 1992; Cook and Gillespie 1986). Artifact assemblages associated with this culture can vary but generally

contain myriad tools ranging from bifacial knives and microblades to end scrapers and side-notched points. Middle Holocene hunter-gatherers had a subsistence economy focused on seasonally abundant game including caribou, fish, and as moose (Potter 2008). Notched point assemblages occur in many sites in interior Alaska including over one dozen on Army lands (XBD-277, XMH-277, XMH-283, XMH-303, XMH-309, XMH-874, XMH-950, XMH-1130, XMH-1168, XMH-1300, Robertson et al. 2004; Raymond-Yakoubian and Robertson 2005.) Several sites (XBD-270, XMH-915, XMH-925), including the excavated Banjo Lake site in DTA (XMH-874) have also produced middle Holocene dates from hearth charcoal. The 6300-6700 year old dates from Banjo Lake were also associated with a microblade component (Robertson et al. 2008).

Utilization of microblade and burin-based industries appears to continue through the middle and late Holocene in interior Alaska (Esdale 2008; Potter 2004). By the late Holocene, archaeologists see a shift from seasonal large mammal hunting with a nomadic lifestyle to a focus on seasonally overabundant resources, use of storage, and more permanent settlements (Potter 2008b). Artifact assemblages do not drastically change until the last millennium of the Holocene when microblades disappear from the archaeological record (Potter 2008).

Linguistic evidence suggests that the Athabaskan culture may have appeared in the Tanana Valley as early as 2,500 years ago. Through ethnography, oral history, and a broad array of cultural items, much has been learned about Athabaskan culture and history in the region. Artifacts associated the Athabaskan culture are exceptionally diverse and include bone and antler projectile points, fishhooks, beads, buttons, birch bark trays, and bone gaming pieces. In the Upper Tanana region copper was available and was used in addition to the traditional material types to manufacture tools such as knives, projectile points, awls, ornaments, and axes (Clark 1981). A late prehistoric Athabaskan occupation is recognized at several sites in and around Fort Wainwright's training lands (Andrews 1975; Andrews 1987; Cook 1989; Mishler 1986; Sheppard et al. 1991; Shinkwin 1979; Yarborough 1978). Of particular interest in this regard is a copper projectile point recently found in a buried context at DTA (XBD-272) (Robertson, et al. 2009).

The Athabaskan Tradition includes late prehistoric and proto-historic cultures generally believed to be the ancestors of Athabascan tribes who currently inhabit Interior Alaska. Excavated Athabaskan sites are rare, but the limited body of evidence allows for several generalizations. Raw material usage was reorganized in the Athabaskan Tradition which de-emphasizing stone tool making and increasing the emphasis on the manufacture of items from native copper and organic materials (Dixon 1985). Assemblages include ground and pecked stone artifacts and an increased use of expedient tools. There was a broadening and diversification of the resource base at this time to include small mammal and freshwater marine animals such as fish and mollusks (McFadyen

Clark 1981; McFadyen Clark 1996; Ream 1986; Sheppard et al. 1991; Shinkwin 1979). Athabaskan sites tend to occur in resource-rich areas near lakes, streams and rivers, and are generally characterized by large house pit and cache pit features. Proto-historic Athabaskan assemblages include Euro-American trade goods such as glass beads and iron implements. Sites of this time period reflect an increased reliance on outside trade and include log cabins co-occurring with traditional house pits, as well as a change in site location to maximize trading opportunities (Andrews 1975; Andrews 1977; Andrews 1987; McFadyen Clark 1981; VanStone and Goddard 1981).

Athabaskan settlement patterns depended greatly on the availability of subsistence resources, and Interior bands lived a nomadic lifestyle. They often traversed vast areas to support themselves and spent considerable time engaged in subsistence activities. It was often necessary for bands to divide into smaller groups to find game, and preserved fish were used as a staple of the diet in addition to fresh game (Andrews. 1975).

Four Athabaskan linguistic and geographic groups have inhabited the Tanana Valley; the Upper Tanana, Tanacross, Tanana and Koyukon. Each group is further distinguished according to geographic location. Bands of the Tanana and Tanacross groups are historically associated with the geographic area that embodies Forts Wainwright and Greely. Salcha, Chena, Wood River, Goodpaster, and Healy Lake bands have inhabited the region since protohistoric times and possibly even prehistoric times (Andrews 1975). Use of the region varied from one band to the next. The Salcha, Chena, Goodpaster, and Wood River bands of the Tanana Athabascans and the Healy Lake band of the Tanacross Athabascans used certain parts of what are now Fort Wainwright and Fort Greely (McKenna 1981). Several villages have been reported on or near Fort Wainwright. One occupied by the Wood River band is said to have been located in the southern part of Fort Wainwright but has not been found (Dixon 1980; Reynolds 1986). The Blair Lakes Archaeological District (FAI-335) on USAG FWA may relate to the prehistory of the Athabaskan tradition. Euro-American historic archaeological sites are also present (Gamza 1995; Phillips 1984).

Historic Context

With the beginning of Euro-American contact in Interior Alaska in the early 19th century, trade influences and influxes of new populations began to change life in the region. Land use patterns shifted from traditional indigenous uses to activities based on Euro-American economic and political systems. Fort Wainwright training lands fall within an area occupied at the time of Euro-American contact by Lower-Middle Tanana Athabascans, including 'bands' described generally as the Salcha, Big Delta-Goodpaster, Wood River, and Chena bands (McKenna 1981; Andrews 1975; Mishler 1986). Historical accounts document traditional settlement patterns that were focused on a widely

mobile season round, with the fall caribou hunt playing a pivotal role in subsistence preparations for the winter and summer activities focused at fish camps, berry and root collecting and in sheep hunting. These activities were frequently communal, with several local bands connected by common interest, geography and intermarriage. Despite anthropological attempts to define boundaries for the peoples living in the lower Tanana River valley, natural terrain served as the only definable boundary to settlement patterns (McKenna 1981).

As Euro-American traders, miners, missionaries and explorers moved into the Tanana River valley, the traditional life ways of local Athabaskan groups were disrupted. Access to trade goods and the development of the fur trade not only affected traditional material culture, but also began to dramatically affect subsistence activities and settlement patterns. Similarly, the arrival of missionaries in the Alaskan interior profoundly influenced traditional social organization. The introduction of mission schools for Native children and the doctrine of new religious beliefs contributed to an erosion of traditional practices (McKenna 1981).

Russian fur traders began settling Interior Alaska starting in the 1810s, establishing a post at Nulato on the Yukon River and one at Taral on the Copper River. British traders established Fort Yukon in 1847. Trade goods from these posts may have passed to Tanana Athabascans and Upper Tanana Athabascans through intra-Native trade networks. Direct contact between Tanana Athabascans and white traders increased after the 1860s. With the U.S. purchase of Alaska in 1867, control of trading stations and the fur trade passed to Americans. Through the 1880s, American traders established several additional posts on the Yukon and Tanana Rivers, including locations at Nuklukayet (modern day Tanana), Belle Isle (modern day Eagle), and Fort Yukon.

Trade goods introduced by Euro-American settlers influenced the Native lifestyle. Clothing, staples, tools, and other necessities could be obtained through trade. Guns allowed hunters to obtain game with greater efficiency. Gradually, Athabaskan Native groups began to alter their traditional nomadic patterns in favor of more permanent settlements. However, while significant, this contact would not have as dramatic an impact on the region as the discovery of gold in the Interior during the last decades of the 19th century. The towns established by Euro-American settlers at the turn of the 20th century, in response to the Klondike Gold Rush and the eventual military development of the region, would rapidly and permanently change the demography and economy of Interior Alaska.

Gold strikes in the Forty mile River region, Birch Creek area, and the Canadian Klondike began drawing miners and prospectors north in the 1880s and 1890s. In response to this gold rush, E.T. Barnette established a trading post on the Chena River in 1901. The following year, prospector Felix Pedro

discovered gold nearby and a new gold rush soon led to the founding of Fairbanks at the site of Barnette's original trading post. Most mining activities in the region occurred on creeks north of Fairbanks with the town serving as a supply center. Agricultural and other commercial activities, such as lumber, also developed to support mining activities in the Fairbanks area. Homesteads existed on parts of what is today the main post of Fort Wainwright as early as 1904.

In 1898, the discovery of gold in the Tanana uplands began a rush of Euro-American settlement into the Tanana River valley. As the economic importance of the Tanana Valley increased, the need for reliable transportation routes and communication systems rose in tandem. Existing trails, such as the Bonnifield, Donnelly-Washburn and Valdez-Fairbanks trails, saw increased use and development in the first decade of the 20th century. This increase in activity also resulted in the establishment of several roadhouses and posts. In 1906, Congressional appropriations led to improvement of the Valdez-Fairbanks trail, crossing the Alaska Range south of Delta Junction, following the Tanana River to Fairbanks. Completion of the Alaska Railroad in 1923 was followed two decades later by construction of the Alaska Highway in 1942, firmly tying the Alaskan interior to the outside.

As Fairbanks grew in the first decade of the 20th century, several agricultural homesteads were developed on lands now encompassed by sections of the Fort Wainwright cantonment area. These homesteads provided Fairbanks with a variety of agricultural products and wood for fuel, but were subsumed when lands were withdrawn for the creation of Ladd Field, which later became Fort Wainwright (Price 2002.)

Riverboats were the primary means of getting people and supplies into the Interior at the turn of the 20th century. The Fairbanks town site was located at the upper limit of navigation for stern-wheeler riverboats on the Chena River. Upriver from that point, residents navigated the river using shallow-draft boats in summer and sleds in the winter. As commerce in the area increased, roads and trails were constructed, sometimes following earlier indigenous routes. The major overland route to tidewater was the Valdez-Fairbanks Trail, which began as a military trail from Valdez to Eagle in 1899.

Transportation and communication networks including the Alaska Railroad were developed to serve new settlements in Interior Alaska. A branch of the railroad route was extended to Fairbanks in 1904. Roadhouses along the route catered to travelers (However, roadhouses were located out on what are now Fort Wainwright training lands. One property was on the Bonnifield Trail in the TFTA while two roadhouses and a seasonal tent operation existed along the Donnelly-Washburn Trail in the current Donnelly Training Area). Secondary routes connected Fairbanks to the surrounding mining districts.

By 1910, most of the easily accessible placer gold deposits were exhausted and capital-intensive technologies became necessary to extract remaining deposits. These methods were not possible with the existing transportation infrastructure. The completion of the Alaska Railroad in 1923, expanded transportation options for the region connecting Fairbanks to the tidewater at Seward, making large-scale dredging operations economically feasible. Aviation also became a key component of Interior transportation beginning in earnest in the 1920s. However, it was not until 1931, that Weeks Field, originally constructed in 1923 was officially dedicated as an airfield. Industrialized, corporate activity became the hallmark of the region's mining in the remaining years before World War II.

Development in the Alaskan interior increased dramatically with the advent of World War II and subsequent military build-up in Alaska. Of particular significance was the development of airfields near Delta Junction (Fort Greely), Fairbanks (Ladd Field, later Fort Wainwright), and 26 miles southeast of Fairbanks (Eielson Air Force Base). These locations began as lend-lease bases and cold weather testing centers, but soon expanded with the increased need for military support during World War II and later during the Cold War.

Full historic contexts of early mining, transportation, and homesteads on Fort Wainwright have been completed. These studies have determined that there are no properties eligible for the National Register under these contexts. Several village sites associated with the early contact period have been reported near Fort Wainwright. One was reported near Wood River Buttes, two just northwest of the installation's boundary and one near Fairbanks (Reynolds 1986). None have been reported or located on the Main Post.

Status of Archaeological Resources

Archaeological research on Fort Wainwright training areas has resulted in numerous technical reports (Bacon 1979; Bacon and Holmes 1979; Dixon et al. 1980; Esdale and Robertson 2007; Espenshade 2010; Bradley et al. 1973; Gaines 2009; Gaines et al. 2010, 2010; Hedman et al. 2003; Higgs et al. 1999; Holmes 1979; Johnson and Bozarth 2008; Marshal 2007; Potter 2005; Potter et al. 2000; Rabich and Reger 1978; Raymond-Yakoubian 2006; Raymond-Yakoubian and Robertson 2005; Robertson 2010; Robertson et al. 2004, 2006, 2007, 2008, 2009; Staley 1993) and several scientific papers (Holmes and Anderson 1986; West 1967, 1975).

Fort Wainwright and its training lands contain 636 known archaeological sites and four archaeological districts. Sixty sites are eligible for the National Register of Historic Properties (NRHP), 512 sites have not been evaluated, and 64 additional sites have been determined ineligible for the NRHP. Of the eligible or un-evaluated sites, 13 are historic sites and 559 are prehistoric sites.

Archaeological surveys of Fort Wainwright's main post area began in 1979. Jim Dixon surveyed the north side of the Chena River and Birch Hill area, discovering and relocating several prehistoric archaeological sites (FAI-40, 41, 42, 43, 199, and 200) (Dixon et al. 1980). Surveys of the main post building areas continued in the 1980s by Julia Steele (Steele 1992, 1983) and Georgeanne Reynolds (Reynolds 1983, 1985). No sites were found in these previously disturbed areas. John Cook surveyed the River Road pond in 1996 and found one site (FAI-509), which has failed to be relocated in subsequent attempts. In 2001, the Army began contracting cultural resource surveys and evaluations with Colorado State University's Center for Environmental Management of Military Lands (CEMML). Surveys by several different principles investigators have targeted areas of construction undertakings. Two historic sites (FAI-1603 and 1604) and one additional prehistoric site (FAI-1990) were found in these investigations. In 2011, CEMML completed survey of the entire cantonment, north and south of the Chena River, discovering one additional historic site (FAI-2117). Of the 11 archaeological sites known from the Fort Wainwright cantonment area, 2 (FAI-1603 and 1604) have been determined not eligible. The remaining sites have not yet been evaluated.

Archaeological sites were first identified in the TFTA in 1973 by Zorro Bradley and others who conducted a survey in the Blair Lakes area (Bradley et al. 1973). James Dixon continued surveys for archaeological district designations in the regions of Blair Lakes (District FAI-335), Clear Creek Butte (District FAI-336), and Wood River Buttes (District FAI-337) (Dixon et al. 1980). In 1993, proposed work in the Clear Creek Butte area prompted a contract to relocate several archaeological sites (Staley 1993.) These three districts have been revisited by CEMML archaeologists a few times over the last decade, and notably 92 new sites were found in 2009-2010 during survey of the Wood River Buttes, Salmon Loaf, and north and east of Blair Lakes. In total, archaeologists have identified 147 archaeological sites in the TFTA. Of these sites, 11 have been determined eligible for inclusion in the National Register (FAI-44, 45, 46, 48, 49, 54, and 194 to 198), 2 are not eligible (FAI-1607 and 2046), and 134 remain to be evaluated for eligibility.

The road system in the YTA was the first of many areas to be investigated. Charles Holmes discovered 8 sites in a 1978 road survey (Holmes 1979). John Cook conducted a DOE evaluation on one of these sites in 1979 (Cook 1979.) Michael Kunz surveyed the Stuart Creek Area in 1992 but discovered no archaeological sites and Northern Land Use Research's (NLUR) 1999 survey of Stuart Creek and the YTA road system uncovered 1 historic site (Higgs et al. 1999). CEMML archaeologists have been surveying portions of the YTA in conjunction with construction projects on an annual basis since 2001. Currently, North Beaver Creek, Skyline, Johnson, Quarry, Brigadier, and Manchu Roads in the YTA are almost entirely surveyed, as is the area east of Skyline Road outside of the Stuart Creek Impact Area, McMahon Trench, the Manchu Range, and the majority of training areas 307 and 310 north and south of Manchu and Quarry

Roads. Twenty-one archaeological sites have been identified in the YTA. Ten of the sites have been determined not eligible for listing in the National Register (FAI-157, XBD-93, 94, 95, 103, 104, 186, 260, 264, and 266) and 11 have not been evaluated. XBD-162 will not be evaluated due to its location in a heavily used portion of the Stuart Creek Impact Area.

Archaeological investigations in what is now the DTA began in the 1960s, when Frederick West was searching for sites related to the first Americans (West 1967). He excavated the Donnelly Ridge Site (XMH-5) in 1964 and found an assemblage containing microblade core technology similar to early Holocene Denali Complex sites. Several surveys of Fort Greely and adjacent training lands in the late 1970's documented 64 new sites (Rabich and Reger 1977, Bacon 1979, Holmes 1979, Bacon and Holmes 1979). Julia Steele surveyed various locations in DTA from 1980-1983, finding 4 additional new sites, (Steele 1980, 1980, 1982, 1982, 1983, and 1983) and Georgianne Reynolds surveyed the Donnelly Dome area in 1988, locating one more (Reynolds 1988). Investigations in DTA from 1992-2002 were by D. Staley (Staley 1993), T. Gamza (Gamza 1995), A. Higgs (Higgs et al. 1999), and D. Odess (Odess 2002). Sixteen new sites were found during this decade of fieldwork and attempts were made to relocate old sites.

Concentrated efforts to expand survey coverage of DTA East began with CEMML archaeologists in 2002. Over 200 new sites were located in the Texas Range, Donnelly Drop Zone, and Eddy Drop Zone in the first half of the decade. In 2007, one site was found in the northernmost portion of DTA West by Ben Potter and others during survey for the Alaska Railroad Northern Rail Extension Project (Potter et al. 2007). In recent years, CEMML research aimed to evaluate many known archaeological sites in DTA for inclusion in the National Register in conjunction with use of the Battle Area Complex (BAX) and its surface danger zone. Sites have also been discovered during surveys for road and trail maintenance. Potential expansions into DTA West, west of the Delta River, have prompted recent surveys into new areas such as Molybdenum Ridge, where 21 new sites were discovered in 2011. Because of its remote setting, however, the archaeology of Donnelly West is still poorly understood and represents a gap in USAG FWA's inventory of cultural properties. The Cold Regions Test Center (CRTC) has also contracted with CEMML and others since the last ICRMP to survey areas in DTA West, east of the Little Delta River, and many new archaeological sites have been recorded (Espenshade 2010).

To date, 454 archaeological sites have been identified within DTA. Forty-nine sites have been found to be eligible for the National Register, and 50 were found not eligible. An additional 355 sites remain to be evaluated. Historic archaeology sites are poorly represented in this region, with only 6 currently known to exist. The Donnelly Ridge District (XMH-388) encompasses Denali sites identified by Frederick West, south and west of Donnelly Dome.

The Gerstle River and Black Rapids Training Areas, also managed by Fort Wainwright, have been infrequently utilized by training activities and very few surveys or identification of archaeological sites have occurred these areas. CEMML archaeologists surveyed two small portions of the GRTA in 2011. One prehistoric site (XMH-1359) is previously known from this training area. Two sites, which have not been evaluated for the NRHP, have been discovered in the BRTA (XMH-317, 318).

Project 1: UAV Corridor Development

Description of Undertaking (36 CFR 800.11 (d) (1))

USAG FWA plans to develop access corridors between launch sites and restricted areas for UAV, in consultation with the Federal Aviation Administration (FAA). The corridors proposed are new controlled airspaces, separate from civilian air corridors. The corridors are located between Fort Wainwright, TFTA, YTA, DTA, and FGA (Figure 2).

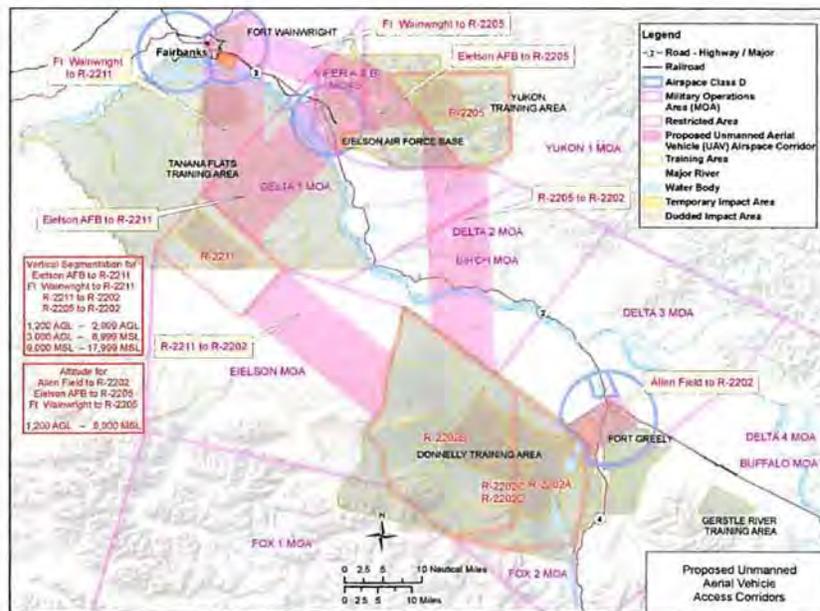


Figure 2. Proposed restricted airspace for UAV's (thick pink lines connecting Fort Wainwright training areas).

Steps Taken to Identify Historic Properties (36 CFR 800.11 (d) (2))

Much of the area beneath the proposed restricted airspaces is not on USAG FWA managed land. Review of the Alaska Heritage Resource Survey identified approximately two dozen archaeological sites under the restricted airspaces. Not all of the area appears to have been surveyed.

Determination of Effect (36 CFR 800.11 (d) (3)) - No Historic Properties Adversely Affected

The time-averaged noise levels in the corridors generated by the proposed UAV operations would be approximately 41 decibels DNL (day-night average sound level) in corridors with a floor altitude of 1,000 above ground level (AGL) and approximately 33 decibels DNL in corridors with a floor altitude of 3,000 AGL. These noise levels would not be sufficient to damage any archaeological or historic sites. No new ground disturbance is associated with the creation of these new restricted airspaces. Because of this, USAG FWA suggests a finding of "No Historic Properties Adversely Affected" for the UAV corridor undertaking.

Project 2: DMPTR Airspace Expansion

Description of Undertaking (36 CFR 800.11 (d) (1))

The USAG FWA proposes to expand the existing restricted airspace over the DMPTR area in YTA. This airspace would be of sufficient size to encompass hazardous activities and weapons footprints for ordnances used in this area. Two airspace alternatives are shown in Figures 3 and 4.

Steps Taken to Identify Historic Properties (36 CFR 800.11 (d) (2))

Although the ground area beneath the possible restricted airspaces has not been surveyed in its entirety, 10 archaeological sites are known to exist.

Determination of Effect (36 CFR 800.11 (d) (3)) - No Historic Properties Adversely Affected

Noise levels generated by munitions firing exceeding 62 decibels CDNL(C-weighted day-night average sound level) would not extend beyond range boundaries and would not be sufficient to damage any archaeological or historic sites. Moreover, there is no ground disturbance related to this undertaking. USAG FWA recommends a finding of "No Historic Properties Adversely Affected" for the expansion of the DMPTR restricted airspace.

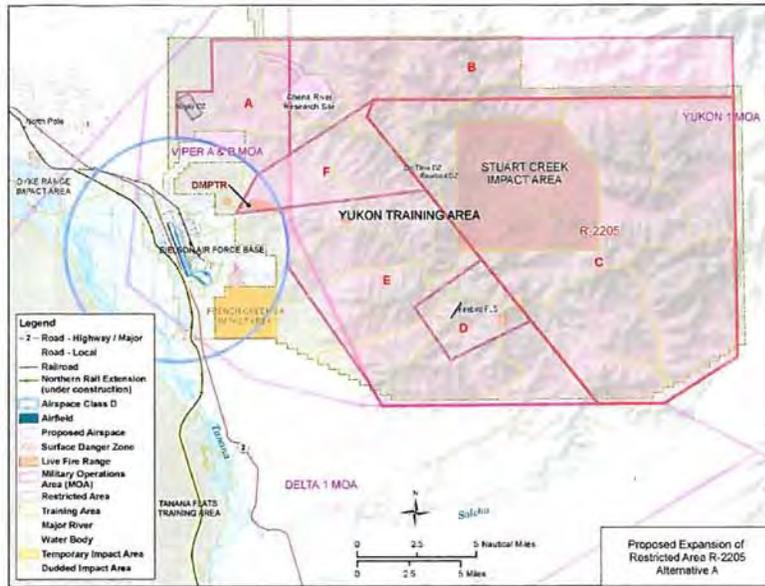


Figure 3. Restricted airspace proposed for over the DMPTR area (Alternative A)

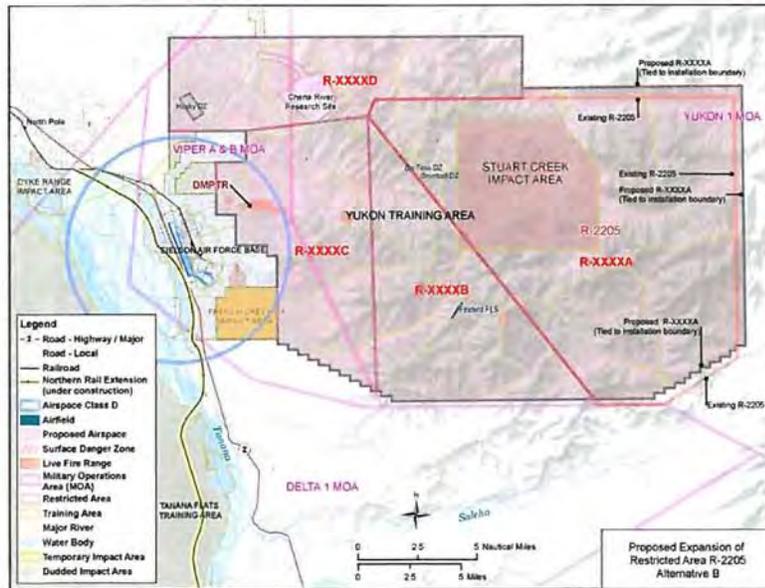


Figure 4. Restricted airspace proposed for over the DMPTR area (Alternative B)

Project 3: BAX Airspace and Footprint Expansion

Description of the Undertaking (36 CFR 800.11 (d) (1))

The US Army proposes to establish a new restricted airspace over the BAX in DTA East, in one of two overlapping locations (Figure 5 and 6). This airspace is proposed to be of sufficient size to encompass hazardous activities and weapons footprints for the types of ordnance used in the area. The expansion of the airspace will not have any ground effect, but a subpart of this overall project includes the expansion of the BAX Surface Danger Zone. A surface danger zone is an "off-limits" downrange safety buffer zone that covers the maximum distance stray rounds may travel, established for the purposes of protecting human health and safety.

The BAX Surface Danger Zone Programmatic Agreement (FWA-PA-1003) was established and signed by the SHPO on February 5, 2010. On-the-ground training has demonstrated that the boundaries of the BAX Surface Danger Zone should be altered slightly from those originally proposed and consulted on in 2009 and 2010. The undertaking, therefore, also includes a change expansion in the boundaries of the surface danger zone (Figure 7) which will affect an additional known fourteen archaeological sites and require additional archaeological survey.

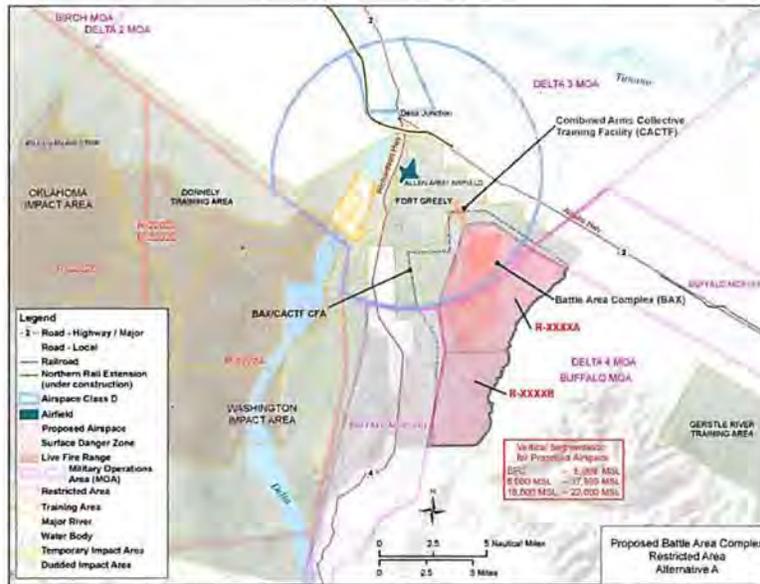


Figure 5. Restricted airspace proposed for over the BAX area (Alternative A)

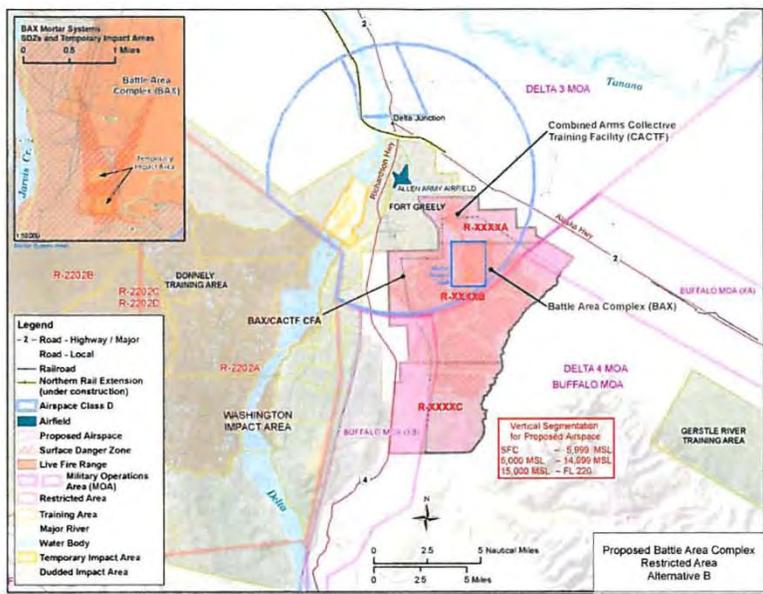


Figure 6. Restricted airspace proposed for over the BAX area (Alternative A)



Figure 7. Original and expanded BAX surface danger zone footprints.

Steps Taken to Identify Historic Properties (36 CFR 800.11 (d) (2))

There are 153 archaeological sites located under the entire restricted airspace. One hundred and thirty sites are located within the original boundaries of the BAX surface danger zone (not all sites are eligible for the NRHP). An additional 14 sites are known from the expanded portions of the BAX footprint in the northwest corner and southern end (Figure 8, Table 1). To comprehensively

identify all archaeological sites in the expanded footprint of the BAX surface danger zone, an additional 1182 acres needs to be surveyed.

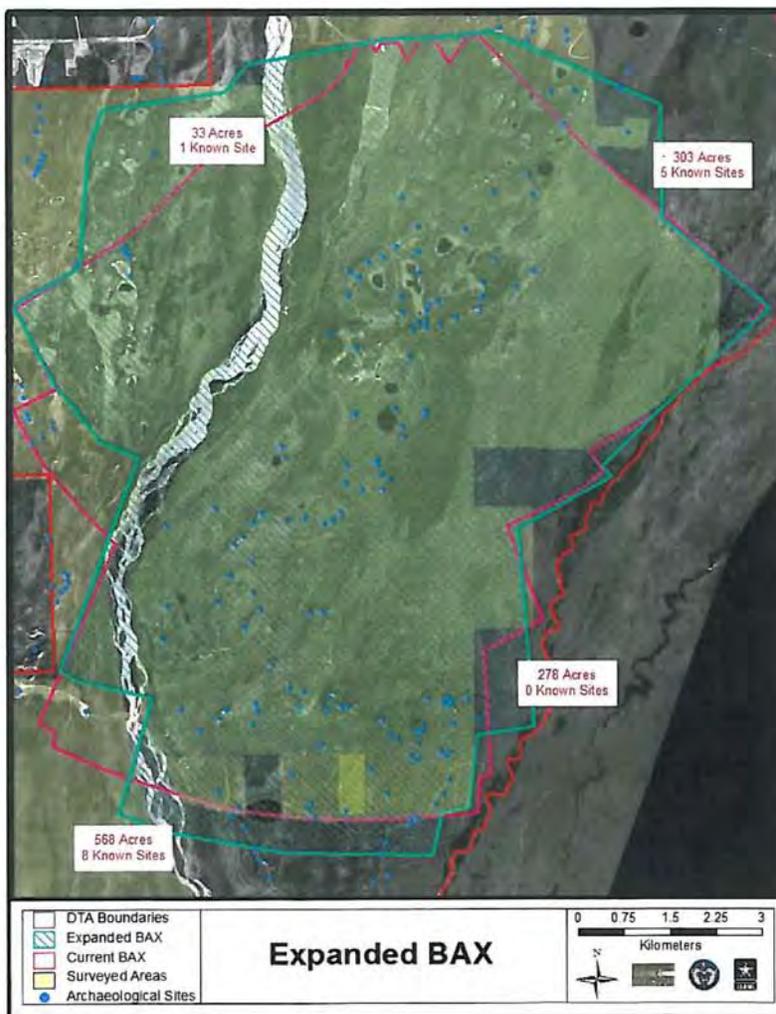


Figure 8. Survey locations in BAX SDZ expansion.

Table 1. Known archaeological sites in the expanded BAX footprint

Site Number	Latitude	Longitude	Eligibility	Site Type
XMH-00274	63°49'48"	-145°39'02"	Not evaluated	Surface lithic scatter
XMH-00322	63°55'47"	-145°31'00"	Not evaluated	Surface lithic scatter
XMH-00323	63°55'52"	-145°32'00"	Not evaluated	Surface lithic scatter
XMH-00902	63°56'16"	-145°32'39"	Not evaluated	Subsurface lithic scatter
XMH-00903	63°56'13"	-145°32'05"	Not evaluated	Subsurface lithic scatter
XMH-01071	63°55'44"	-145°40'39"	Not evaluated	Subsurface lithic scatter
XMH-01333	63°56'13"	-145°31'19"	Not evaluated	Surface lithic scatter
XMH-01360	63°49'54"	-145°39'25"	Not evaluated	Surface lithic scatter
XMH-01364	63°49'48"	-145°35'53"	Not evaluated	Surface lithic scatter
XMH-01365	63°49'50"	-145°35'52"	Not evaluated	Surface lithic scatter
XMH-01366	63°49'51"	-145°35'45"	Not evaluated	Surface lithic scatter
XMH-01369	63°49'37"	-145°38'57"	Not evaluated	Surface lithic scatter
XMH-01377	63°49'32"	-145°36'27"	Not evaluated	Surface lithic scatter
XMH-01378	63°49'39"	-145°36'20"	Not evaluated	Surface lithic scatter

Determination of Effect (36 CFR 800.11 (d) (3)) - Historic Properties Adversely Affected

Although 153 archaeological sites are located under the training airspace, no significant impacts are anticipated to cultural resources from the airspace reclassification and its training use. Flying operations are not conducted at a frequency sufficient to result in time-averaged noise levels exceeding 65 DNL. In addition, noise levels generated by munitions firing exceeding 62 decibels CDNL would not extend beyond range boundaries and would not be sufficient to damage any archaeological or historic sites.

USAG FWA recommends a finding of "Historic Properties Adversely Affected" for the known archaeological sites within the expanded footprint of the BAX. We also suggest to amend the existing BAX Surface Danger Zone PA to include the 14 sites mentioned above (Table 1) and any sites found during surveys of the previously un-surveyed areas (Figure 8) bounded by the expanded BAX surface danger zone footprint.

Summary and Recommendations (36 CFR 800.11 (d) (3))

Based on reviews of the UAV Corridor Development and the DMPTR Airspace Expansion, there is no reason to believe that any of these projects warrant any further fieldwork or consideration under Section 106 of the NHPA (16 USC § 470, as amended 2000), and regulations codified in 36 CFR 800 (as amended 2004). USAG FWA has determined findings of **No Historic Properties Adversely Affected** for the UAV Corridor Development and the DMPTR Airspace Expansion.

Further fieldwork in the form of archaeological survey of previously un-surveyed areas and phase two research to determine the eligibility of existing sites is recommended for the BAX footprint expansion undertaking. USAG FWA has determined a finding of **Historic Properties Adversely Affected** for this undertaking and suggests that amendments are made to the existing FWA-PA-1003 to protect and monitor archaeological sites within the expanded BAX footprint. No indications of burials or other human remains are known from within the surveyed area; therefore, barring an unforeseen discovery during the survey, there are no further considerations expected under the NAGPRA (25 USC § 3001 *et seq.*).

Copies of this letter will be sent to federally recognized tribes (Village of Dot Lake, Native Village of Eagle, Healy Lake Village, Nenana Native Association, Northway Village, Native Village of Tanacross, and Native Village of Tetlin). If you have any questions or require additional information, please contact Julie Esdale, USAG FWA Archaeologist at (907) 361-9405 or at julie.a.esdale.ctr@mail.mil.

Sincerely,



Michael T. Meeks
Director, Directorate of Public Works

References

- Anderson, D.D. Stone Age Campsite at the Gateway to America. *Scientific American* 218(6), 1968: 24-33.
- Anderson, D.D. Microblade Traditions in Northwestern Alaska. *Arctic Anthropology* 7(2), 1970: 2-16.
- Andrews, E.F. Archaeological Evidence of European Contact: The Han Athabascans Near Eagle, Alaska. *High Plains Applied Anthropologist* 7(2), 1987: 51-64.
- Andrews, E.F. *Report on the Cultural Resources of the Doyon Region, Central Alaska: Volumes I and II*. Fairbanks: Anthropology and Historic Preservation, Cooperative Park Studies Unit, University of Alaska Occasional Paper No. 5, 1977.
- Andrews, E.F. *Salcha: an Athabaskan Band of the Tanana River and its Culture*. M.A. Thesis, Fairbanks: Department of Anthropology, University of Alaska, 1975.
- Bacon, G.H. *Final Report on the Archaeological Survey of the XM-1 Tank Range, Fort Greely, Alaska*. Prepared by Alaskaarctic, Fairbanks, 1970..
- Bacon, G.H. and C.E. Homes. *Archaeological Survey and Inventory of Cultural Resources at Fort Greely*. Prepared by Alaskaarctic, Fairbanks, 1979.
- Bever, M.R. An Overview of Alaskan Late Pleistocene Archaeology: Historical Themes and Current Perspectives. *Journal of World Prehistory* 15(2), 2001: 125-191.
- Bever, M.R. Stone Tool Technology and the Mesa Complex: Developing a Framework of Alaska Paleoindian Prehistory. *Arctic Anthropology* 38(2), 2001: 98-118.
- Bever, M.R. Too Little, Too Late? The Radiocarbon Chronology of Alaska and the Peopling of the New World. *American Antiquity* 71(4), 2006: 595-620.
- Bigelow, N.H., and W.R. Powers. Climate, Vegetation, and Archaeology 14,000-9000 Cal Yr B.P. In Central Alaska. *Arctic Anthropology* 38(2), 2001: 171-195.
- Bradley, Z., J. Cook, and A. Frizzera. *Preliminary Survey Report, Blair Lakes Alaska*. Fairbanks, Alaska: University of Alaska Fairbanks, Anthropology Department, 1973.
- Buchanan, B., and M. Collard. Phenetics, Cladistics, and the Search for the Alaskan Ancestors of the Paleoindians: a Reassessment of Relationships Among the Clovis, Nenana, and Denali Archaeological Complexes. *Journal of Archaeological Science* 35, 2008: 1683-1694.

- Clark, D.W. Prehistory of the Western Subarctic. In *The Handbook of North American Indians: Subarctic, Volume 6*, by J. Helm, p. 120. Washington, D.C.: Smithsonian Institution, 1981.
- Clark, D.W. The Archaic in the Extreme Northwest of North America. *Revista de Arqueologia Americana* 5, 1992: 71-99.
- Clark, D.W. Microblade-Culture Systematics in the Far Interior Northwest. *Arctic Anthropology* 38(2), 2001: 64-80.
- Cook, J.P. *The Early Prehistory of Healy Lake, Alaska*. Ph.D. Dissertation, Madison: Department of Anthropology, University of Wisconsin, 1969.
- Cook, J.P. Archaeology of Interior Alaska. *Western Canadian Journal of Anthropology* 3, 1975: 125-133.
- Cook, J.P. *Site XBD-094: Aircraft Assault Strip Fort Wainwright, Alaska*. Final Report to U.S. Army Corps of Engineers. Fairbanks, Alaska: University of Alaska Fairbanks, 1979.
- Cook, J.P., and T.E. Gillespie. Notched Points and Microblades. Paper presented at the *13th Annual Meeting of the Alaska Anthropological Association*. Fairbanks: Alaska, 1986.
- Cook, J. Historic Archeology and Ethnohistory at Healy Lake, Alaska. *Arctic* 42(3), 1989: 109-118.
- Cook, J. Healy Lake. In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by Frederick H. West, p. 323-327. Chicago: University of Chicago Press, 1996.
- Dixon, E.J. Cultural Chronology of Central Interior Alaska. *Arctic Anthropology* 22, 1985: 47-66.
- Dixon, E.J., G.S. Smith, and D. Plaskett. *Archeological Survey and Inventory of Cultural Resources, Fort Wainwright, Alaska*. Prepared for the U.S. Army Corps of Engineers, Alaska District, 1980.
- Dumond, D.E. The Archaeology of Eastern Beringia: Some Contrasts and Connections. *Arctic Anthropology* 38(2), 2001: 196-2005.
- Esdale, J.A. A Current Synthesis of the Northern Archaic. *Arctic Anthropology* 45(2), 2008: 3-38.
- Esdale, J.A. and A.C. Robertson. *Final Report: Archaeological Data Recovery for Sites XMH-00284 and XMH-00881, 33-Mile Loop Road Gravel Source Mitigation: Donnelly Training Area, Fort Wainwright, Alaska 2007*. Prepared by the Center for Environmental Management of Military Lands, Fort Collins, 2007.

Eshleman, J.A., R.S. Malhi, and D.G. Smith. Mitochondrial DNA Studies of Native Americans: Conceptions and Misconceptions of the Population Prehistory of the Americas. *Evolutionary Anthropology* 12, 2003: 7-18.

Espenshade, C.T. *Archaeological Investigations, Donnelly Training Area near Delta Junction, Alaska*. Prepared by New South Associates. Technical Report 1922, 2010.

Gaines, E.P. *Report: Archaeological Survey and Evaluation Fort Wainwright and Fort Richardson, Alaska 2008*. Prepared by the Center for Environmental Management of Military Lands, Fort Collins, 2009.

Gaines, E.P., H. Hardy, and H. Brown. *Final Report: Determination of National Register Eligibility for Eleven Archaeological Sites at Fort Greely, Alaska 2010*. Prepared by the Center for Environmental Management of Military Lands, Fort Collins, 2010.

Gaines, E.P., K.S. Yeske, and S.J. McGowan. *Annual Report: Cultural Resources Survey and Evaluation, Fort Wainwright, Alaska 2009*. Prepared by the Center for Environmental Management of Military Lands, Fort Collins, 2010.

Gamza, T. *Excavation and Evaluation of Sullivan's Roadhouse (XBD-061), Fort Greely, Alaska 1994*. Anchorage: Final Report, Prepared for the Office of History and Archaeology, Division of Parks and Recreation, Alaska Department of Natural Resources, 1995.

Goebel, T., W.R. Powers, N.H. Bigelow, and A.S. Higgs. Walker Road. In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by Frederick H. West, p. 356-363. Chicago: University of Chicago Press, 1996.

Hedman, W., A. Robertson, N. Fichter and K. Anderson. *Report: Archaeological Survey and Evaluation, Fort Richardson and Fort Wainwright, 2002*. Prepared by the Center for Environmental Management of Military Lands, Fort Collins, 2003.

Higgs, A. S., B. A. Potter, P. M. Bowers and O. K. Mason. *Cultural Resource Survey Report of the Yukon Training Area and Fort Greely Army Lands Withdrawal, Alaska*. 2 Volumes Prepared for ABR, Inc. and U.S. Army Cold regions Research and Engineering Laboratory and U.S. Army Alaska. Fairbanks, Alaska: Northern Land Use Research, Inc., 1999.

Holmes, C.E. *Report on Archeological Reconnaissance: Yukon Training Command Withdrawal Area. Ft. Wainwright*. Report prepared for the U.S. Army Corps of Engineers under Contract DACA85-79-M-0001, 1979.

Holmes, C.E. *Archeological Reconnaissance Report for Fort Wainwright, Fort Greely, and Fort Richardson Withdrawal Lands, Alaska*. Report Prepared for the 172nd Infantry Brigade, 1979.

Holmes, C.E. New Data Pertaining to Swan Point, the Oldest Micoblade Site Known in Alaska. *Current Research in the Pleistocene* 15, 1998: 21-22.

Holmes, C.E. The East Beringian Tradition and the Transitional Period: New Data from Swan Point. Paper presented at the *34th Annual Meeting of the Alaskan Anthropological Association*. Fairbanks, 2007.

Holmes, C.E. Broken Mammoth. In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by Frederic H. West, p. 312-318. Chicago: University of Chicago Press, 1996.

Holmes, C.E. Tanana River Valley Archaeology Circa 14,000 to 9,000 B.P. *Arctic Anthropology* 38(2), 2001: 154-170.

Holmes, C.E., and J. Anderson. *Archaeology and Paeoecology of the Delta River Area, Interior Alaska*. National Science Foundation Project Summary Manuscript on file a the State Historic Preservation Office, Anchorage, 1986.

Holmes, C.E., and J.P. Cook. Tanana Valley Archaeology Circa 12,000 to 8,500 Yrs. B.P. Paper presented at the *64th Annual Meeting of the Society for American Archaeology*. Chicago, 1999.

Holmes, C.E., R. VanderHoek, and T.E. Dilley. Swan Point. In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by Frederick H. West, p. 319-323. Chicago: University of Chicago Press, 1996.

Holmes, G.W. Geologic Reconnaissance along the Alaska Highway. Delta River to Tok Junction, Alaska. *Geological Survey Bulletin* 1181-H, 1965.

Johnson, W.C. and S.R. Bozarth. *Geoarchaeology and Environmental Reconstruction at XMH-874, Fort Wainwright Donnelly Training Area*. Prepared by the Center for Environmental Management of Military Lands, Fort Collins, 2008.

Lively, R.A. Chugwater. In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by Frederick H. West, p. 308-311. Chicago: University of Chicago Press, 1996.

Marshall, Tim. *Archaeological Survey and Evaluation: Fort Wainwright, 2006*. Prepared by the Center for Environmental Management of Military Lands, Fort Collins, 2007.

McFadyen Clark, A. Koyukon. In *Handbook of North American Indians, Volume 6: Subarctic*, by J. Helm, p. 582-601. Washington, D.C.: Smithsonian Institution, 1981.

- McFadyen Clark, A. *Who Lived in This House? A Study of Koyukuk River Semi Subterranean Houses*. Hull: Mercury Series Archaeological Survey of Canada Paper 153. Canadian Museum of Civilization, 1996.
- McKenna, R.A. Tanana. In *Handbook of North American Indians, Volume 6: Subarctic*, by J. Helm. Washington, D.C.: Smithsonian Institution, 1981.
- Meltzer, D.J. Late Pleistocene Cultural and Technological Diversity of Beringia: A View from Down Under. *Arctic Anthropology* 38(2), 2001: 206-213.
- Mishler, C.W. *Born With the River: An Ethnographic History of Alaska's Goodpaster and Big Delta Indians*. Fairbanks: Alaska Department of Natural Resources, Division of Geological and Geophysical Surveys Reports, Public Data File 68-14, 1986.
- Muhs, D.R. and J.R. Budahn. Geochemical evidence for the origin of late Quaternary loess in central Alaska. *Canadian Journal of Earth Science* 43, 2006: 323-337.
- Odess, D. *Preliminary Report of Archaeological Investigations on Military Lands in the Vicinity of Donnelly Dome, Alaska Under TCC Contract #DAPC49=01-D-0004*. Report on file with the Tanana Chiefs Conference, Fairbanks, 2002.
- Odess, D., and J.T. Rasic. Toolkit Composition and Assemblage Variability: The Implications of Nogahabara I, Northern Alaska. *American Antiquity* 72(4), 2007: 691-717.
- Pearson, G.A., and W.R. Powers. The Campus Site Re-Excavation: New Efforts to Unravel Its Ancient and Recent Past. *Arctic Anthropology* 38(1), 2001: 100-119.
- Phillips, W.T., Sr. *Roadhouses of the Richardson Highway, the First Quarter Century: 1898-1923*. Anchorage.: State of Alaska, Alaska Historical Commission, 1984.
- Potter, B.A. Modeling Intersite Variability in Interior Alaska: Overcoming Conceptual Ambiguity Through Pattern Recognition. Paper presented at the 60th Annual Meeting of the Society for American Archaeology. Montreal, 2004.
- Potter, B.A. Exploratory Models of Intersite Variability in Mid to Late Holocene Central Alaska. *Arctic* 61(4), 2008: 407-425.
- Potter, B.A. Models of Faunal Processing and Economy in Early Holocene Interior Alaska. *Environmental Archaeology* 12(1), 2007: 3-23.
- Potter, B.A. Radiocarbon Chronology of Central Alaska: Technological Continuity and Economic Change. *Radiocarbon* 50(2), 2008: 181-204.

- Potter, B. A. Recent Investigations at the Gerstle River Site, a Multicomponent Site in Central Alaska. *Current Research in the Pleistocene* 18, 2001: 52-54.
- Potter, B. *Site Location Model and Survey Strategy for Cultural Resources in the Alaska Railroad Northern Rail Extension Project Area*. Report submitted by Northern Land Use Research, Inc. and ICF Consulting Services, LLC, 2005.
- Potter, B.A., S.C. Gerlach, A.S. Higgs, and P.M. Bowers. *Final Cultural Resource Survey: Fort Greeley, Yukon Training Area (Fort Wainwright), Alaska for the National Missile Defense Program, for USAR Space and Missile Defense Command*. Report prepared by Northern Land Use Research, Inc. Fairbanks, 2000.
- Potter, B.A., J.D. Irish, J.D. Reuther, C. Gelvin-Reymiller, and V.T. Holliday. A Terminal Pleistocene Child Cremation and Residential Structure from Eastern Beringia. *Science* 331, 2011: 1058-1062.
- Potter, B.A., J.D. Reuther, P.M. Bowers, and C. Gelvin-Reymiller. *Results of the 2007 Cultural Resource Survey of Proposed Alaska Railroad Northern Rail Extension Routes, Alaska*. Report submitted by Northern Land Use Research, Inc. Fairbanks, Alaska 2007.
- Potter, B.A., J.D. Reuther, P.M. Bowers, and C. Gelvin-Reymiller. Little Delta Dune Site: A Late-Pleistocene Multicomponent Site in Central Alaska. *Current Research in the Pleistocene* 25, 2008: 132-135.
- Potter, B.A., P.M. Bowers, J.D. Reuther, and O.K. Mason. Holocene Assemblage Variability in the Tanana Basin: NLUR Archaeological Research, 1994-2004. *Alaska Journal of Anthropology* 5(1), 2007: 23-42.
- Powers, W. R., and J.F. Hoffecker. Late Pleistocene Settlement in the Nenana Valley, Central Alaska. *American Antiquity* 54(2), 1989: 263-287.
- Price, K. *Homesteads on Fort Wainwright, Alaska*. Fort Collins: Center for Environmental Management of Military Lands, Colorado State University, 2002.
- Rabich, J.C., and D.R. Reger. *Archaeological Excavations at the Gerstle River Quarry Site*. In *Archaeological Survey Projects 1977*. OHA Miscellaneous Publication 18. Anchorage, Alaska: Office of History and Archaeology, 1977.
- Raymond-Yakoubian, J. *Annual Report: Archaeological Survey and Evaluation, Fort Richardson and Fort Wainwright, 2005*. Prepared by the Center for Environmental Management of Military Lands, Fort Collins, 2006.
- Raymond-Yakoubian, J., and A. Robertson. *Annual Report: Archaeological Survey and Evaluation, Fort Richardson and Fort Wainwright, 2004*. Annual Report, Fort Collins: Center for Environmental Management of Military Lands (CEMML), 2005.

Ream, B.A. *Old Fish Camp: an Ethnohistoric and Archeological Analysis of a Lower Yukon Koyukon Athapaskan Winter Village, Khotol River, Alaska*. M.A. Thesis, Department of Anthropology, Western Washington University, 1986.

Reynolds, G.L. *Archaeological Reconnaissance of Four Borrow Pits, Fort Wainwright, Alaska*. Anchorage, Alaska: Corps of Engineers, 1983.

Reynolds, G.L. *Survey of Construction Projects, Fort Wainwright Cantonment*. Manuscript on file at the Office of History and Archaeology, Anchorage, 1985.

Reynolds, G. *Inventory of Cultural Resources and Overview, Phase I*. Prepared for the 172nd Infantry Brigade by Georgeanne Reynolds, Fairbanks: Alaska Heritage Group, Inc., 1986.

Reynolds, G.L. *Archeological Site Report Fort Greely Cantonment Area*. Manuscript on file at the Office of History and Archaeology, Anchorage, 1998.

Robertson, A.C., J. Esdale, W.C. Johnson, S.R. Bozarth, M. Proue, C.K. Paraso, S. Shirar, and P. Gilbert. *Final Report: 2006-2007 Archaeological Data Recovery for Site XMH-00874 Battle Area Complex (BAX) Mitigation, Donnelly Training Area, Fort Wainwright, Alaska*. Prepared by the Center for Environmental Management of Military Lands, Fort Collins, 2009.

Robertson, A.C., M. Proue, P. Hall, S. Shirar, and C.K. Paraso. *Archaeological Survey, Evaluation, and Mitigation: Donnelly Training Area, Fort Wainwright, Alaska 2006*. Prepared by the Center for Environmental Management of Military Lands, Fort Collins, 2007.

Robertson, A.C., M. Proue, C.K. Paraso, S. Shirar, and P. Gilbert. *Archaeological Data Recovery for Site XMH-00874, Battle Area Complex (BAX) Mitigation, Donnelly Training Area, Fort Wainwright, Alaska, 2007*. Annual Report, Fort Collins: Center for Environmental Management of Military Lands (CEMML), Colorado State University, and the US Army Alaska Garrison Fort Wainwright, Alaska, 2008.

Robertson, A.C., N. Fichter, and K. Anderson. *Annual Report: Archaeological Survey and Evaluation, Fort Richardson and Fort Wainwright 2003*. Annual Report, Ft. Collins: Center for Environmental Management of Military Lands (CEMML), Colorado State University and US Army Garrison Fort Wainwright, 2004.

Robertson, A.C., S.J. Meitl, D. White, P. Gilbert, and C. Ciancibelli. *Archaeological Survey and Evaluation: Donnelly Training Area, Fort Wainwright*. Annual Report, Ft. Collins: Center for Environmental Management of Military Lands (CEMML), Colorado State University, and US Army Garrison Fort Wainwright, Alaska, 2009.

Sheppard, W., A.F. Seffian, D.P. Staley, and N.H. Bigelow. *Late Holocene Occupations at the Terrace Site, Tok, Alaska*. Final Report, Fairbanks: Prepared for U.S. Air Force Over-the-Horizon Backscatter Radar Program, 1991.

Shinkwin, A.D. *Dakah De'nin's Village and the Dixthada Site: a Contribution to Northern Alaskan Prehistory*. National Museum of Man Mercury Series NO. 91, 1979.

Staley, D.P. *A Phase 1 Cultural Resources Survey of 19 Locations for the Proposed Yukon Measurement and Debriefing System in Interior Alaska*. Albuquerque, New Mexico: Mariah and Associates, 1993.

Steele, J.L. *Fort Greely Bison Trail Archaeological Survey, Fort Greely, Alaska*. Anchorage, Alaska: Alaska District, U.S. Army Corps of Engineers, 1980.

Steele, J.L. *Archaeological Assessment of Squad Assault Range, Powerline Extension, and M-16 Record Fire Range, Fort Greely, Alaska*. Anchorage, Alaska: Alaska District, U.S. Army Corps of Engineers, 1980.

Steele, J.L. *Cultural Resource Assessment of a Powerline Extension: Fort Greely, Alaska*. Manuscript on file at the U.S. Army Corps of Engineers, Alaska District., 1983.

Steele, J.L. *Archeological Assessment of Proposed Range Control Headquarters Building, Fort Wainwright, Alaska*. Manuscript on file at the U.S. Army Corps of Engineers, Alaska District, 1982.

Steele, J.L. *Cultural Resource Assessment for a Quarry Site at Donnelly Dome, Fort Greely, Alaska*. Manuscript on file at the U.S. Army Corps of Engineers, Alaska District, 1982.

Steele, J.L. *Cultural Resources Assessment of Proposed Borrow Area, Fort Wainwright, Alaska*. Manuscript on File at the U.S. Army Corps of Engineers, Alaska District, 1983.

VanStone, J.W., and I. Goddard. Territorial Groups of West-Central Alaska Before 1898. In *Handbook of North American Indians, Volume 6: Subarctic*, by J. Helm, 556-561. Washington D.C.: Smithsonian Institution, 1981.

West, F.H. The Donnelly Ridge Site and the Definition of an Early Core and Blade Complex in Central Alaska. *American Antiquity* 32(2), 1967: 360-382.

West, F.H. Dating the Denali Complex. *Arctic Anthropology* 12, 1975: 76-81.

West, F.H. Other Sites in the Tangle Lakes. In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by F.H. West, p. 403-408. Chicago: University of Chicago Press, 1996.

West, F.H. *The Archaeology of Beringia*. New York: Columbia Press, 1981.

West, F.H. Donnelly Ridge. In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by Frederick H. West, p. 302-307. Chicago: University of Chicago Press, 1996.

Yarborough, L.F. *Chena River Lakes Project Cultural Resource Investigation*. Final Report, Fairbanks: Prepared for the U.S. Army Corps of Engineers, Alaska District, 1978.

Yesner, D.R., and G.A. Pearson. Microblades and Migrations: Ethnic and Economic Models in the peopling of the Americas. In *Thinking Small: Global Perspectives on Microlithization*, by R.G. Elston and S.L. Kuhn, 133-161. Arlington: Archaeological Papers of the American Anthropological Association Number 12, 2002.

Yesner, D.R., C.E. Holmes, and G. Pearson. Recent Excavations at the Broken Mammoth Site, Big Delta, Alaska: Reflections on Activity Patterning and Artifact Assemblages. Paper presented at the *64th Annual Meeting of the Society of American Archaeology*. Chicago, 1999.

Yesner, D.R. Human Dispersal into Interior Alaska: Antecedent Conditions, Mode of Colonization, and Adaptations. *Quaternary Science Reviews*, 2001: 315-327.

STATE OF ALASKA

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF PARKS & OUTDOOR RECREATION
OFFICE OF HISTORY AND ARCHAEOLOGY

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March 9, 2012

MAR 21 2012

File No.: 3130-1R ARMY

Michael T. Meeks
Director, Directorate of Public Works
Department of the Army
Headquarters, U.S. Army Garrison Fort Wainwright
1060 Gaffney Road, #6000
Fort Wainwright, Alaska 99703-6000

Subject: The Unmanned Aerial Vehicle (UAV) Corridor Development, Digital Multipurpose Training Range (DMPTR) Airspace Expansion, and Battle Area Complex (BAX) Airspace and Footprint Expansion

Dear Mr. Meeks:

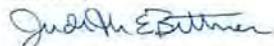
The Alaska State Historic Preservation Office (AK SHPO) received your correspondence (dated February 7, 2012) on February 13, 2012. Following our review of the documentation provided, we concur with your determination that a finding of **no adverse effect** is appropriate for the following undertakings addressed in the cultural resource inventory report:

- Project 1: UAV Corridor Development
- Project 2: DMPTR Airspace Expansion

We concur that a finding of **adverse effect** is appropriate for the BAX Airspace and Footprint Expansion project. As noted within the documentation provided, there are 14 known sites within the expanded BAX footprint. We agree that an amendment to the *Programmatic Agreement Between the United States Department of the Army and the Alaska State Historic Preservation Officer Regarding Monitoring and Treatment Plan of Archaeological Sites Located within the Surface Danger Zone (SDZ) of the Battle Area Complex (BAX) Training Facility at Fort Wainwright, Donnelly Training Area* is appropriate in order to incorporate these sites. Further, we agree with the management recommendations provided, including inventory of previously unsurveyed areas and research to determine the eligibility of sites located within the BAX footprint expansion area. We look forward to receiving a proposed amended draft Programmatic Agreement (PA). Upon receipt, we will review the draft and provide any additional comments so that it may be expeditiously amended.

Thank you for the opportunity to comment. Please contact Shina duVall at 269-8720 or shina.duvall@alaska.gov if you have any questions or if we can be of further assistance.

Sincerely,



Judith E. Bittner
State Historic Preservation Officer

JEB:sad





REPLY TO
ATTENTION OF:

1-11-2012
2480 ARMY PAX SDZ
FW-PA-1207
DEPARTMENT OF THE ARMY
INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, U.S. ARMY GARRISON, FORT WAINWRIGHT
1060 GAFFNEY ROAD #6000
FORT WAINWRIGHT, ALASKA 99703-6000

FW-PA-1207

SEP 09 2012

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10/1/2012

**FIRST AMENDED PROGRAMMATIC AGREEMENT
BETWEEN
THE UNITED STATES DEPARTMENT OF THE ARMY
AND
THE ALASKA STATE HISTORIC PRESERVATION OFFICER
REGARDING
MONITORING AND TREATMENT PLAN OF ARCHAEOLOGICAL SITES LOCATED
WITHIN THE SURFACE DANGER ZONE OF THE BATTLE AREA COMPLEX
TRAINING FACILITY AT FORT WAINWRIGHT, DONNELLY TRAINING AREA**

Amendment 1

WHEREAS, the original *Programmatic Agreement between the United States Department of the Army and the Alaska State Historic Preservation Officer regarding the Monitoring and Treatment Plan of Archaeological Sites located within the Surface Danger Zone (SDZ) of the Battle Area Complex (BAX) Training Facility at Fort Wainwright, Donnelly Training Area* was executed on the 5th day of February, 2010; and

WHEREAS, in 2009, the United States Department of the Army (the "Army"), acting through the United States Army Garrison Fort Wainwright (USAG FW), proposed to establish a Surface Danger Zone (SDZ) associated with the Battle Area Complex (BAX) and Combined Arms Collective Training Facility (CACTF) at Fort Wainwright's Donnelly Training Area (DTA) (hereafter referred to as "the Undertaking"); and

WHEREAS, the Undertaking originally entailed establishing 23,741 acres downrange of the BAX complex as a restricted area in order to protect human health and safety from potential stray rounds resulting from live fire exercises at the BAX; and

WHEREAS, this first amendment incorporates an additional 3,252 acres down range of the BAX which will be established in 2012 and surveyed for archaeological sites within 5 years as part of the Joint Pacific Alaska Range Complex restricted airspace expansion (a separate undertaking from the original establishment of the BAX SDZ); and

WHEREAS, this first amendment serves to incorporate the above mentioned additional acreage down range of the BAX which has been established since the original Programmatic Agreement (PA) was executed; and

WHEREAS, due to the removal of ineligible sites, this first amendment also corrects the number of archaeological sites (also known as historic properties per 36 C.F.R. § 800) within the SDZ from the original 136 sites to 124 sites that are eligible or may be eligible for listing in the National Register of Historic Places (National Register) and identified in Exhibit 2 hereto; and

FW-PA-1207

WHEREAS, with this first amendment, the BAX SDZ monitoring schedule will be changed to more closely match military live-fire training schedules; and

WHEREAS, being no construction will take place in the SDZ, no targets will be set up within the SDZ and no archaeological sites are within the direct line of fire; potential adverse effects to historic properties will likely be limited to impacts of stray rounds from live fire training activities at the BAX; and

WHEREAS, during the 2009 field season, the USAG FW completed the archaeological excavation of the 29 archaeological sites closest to the BAX in accordance with the research design and methods detailed in *U.S. Army Alaska's Monitoring and Data Recovery Plan for Cultural Resources within the Battle Area Complex Surface Danger Zone, Fort Wainwright, Donnelly Training Area, 2009* (Section 8.0); and

WHEREAS, the USAG FW has consulted with the Alaska State Historic Preservation Officer (SHPO) pursuant to 36 C.F.R. § 800, regulations implementing Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470 f) and the SHPO has concurred with a finding of no adverse effect provided that a monitoring and data recovery program is implemented; and

WHEREAS, the USAG FW invited the Advisory Council on Historic Preservation (ACHP) to participate, and the Council declined; and

WHEREAS, the USAG FW consulted the FW Cultural Resources Working Group including the Tanana Yukon Historical Society; and

WHEREAS, the USAG FW consulted with Alaska Native tribes from the Village of Dot Lake, Native Village of Eagle, Healy Lake Village, Northway Village, Native Village of Tanacross, and Native Village of Tetlin; and will continue to consult during the duration of this PA; and

WHEREAS, this PA has been prepared in consultation with the SHPO and in accordance with 36 C.F.R. § 800.14 (b)(1)(v); and

NOW, THEREFORE, the USAG FW and SHPO agree that the USAG FW shall ensure that the following stipulations are implemented in order to take into account the effects of the Undertaking on historic properties and to satisfy the USAG FW's NHPA Section 106 responsibilities.

STIPULATIONS

The USAG FW shall ensure that the following stipulations are implemented:

I. SURVEY

a. Survey: Systematic Phase I archaeological survey of all areas added to the BAX SDZ with this first amendment will take place over a period of no more than 5 years from date of execution of this amended PA. Any archaeological sites found will be added to the monitoring program. If a Determination of Eligibility (DOE) is conducted on any archaeological site within the SDZ resulting in a site being found to not be eligible for the National Register, that site will be removed from the monitoring plan once the SHPO concurs with the DOE.

b. If, in the future, the BAX SDZ is expanded beyond its current anticipated boundary up to 20% in additional area (5,400 acres), the USAG FW will notify the SHPO prior to the expansion being formalized and will develop a plan to survey the added area.

(1) Any archaeological sites found during the survey will be added to the monitoring program.

(2) Any expansion beyond the 20% of the original size of the BAX SDZ will be treated as a new undertaking.

II. MONITORING

a. Monitoring: Monitoring will be conducted in accordance with the research design and methods detailed in Exhibit 1 *U.S. Army Alaska's Monitoring and Data Recovery Plan for Cultural Resources within the Battle Area Complex Surface Danger Zone, Fort Wainwright, Donnelly Training Area, 2009* (Section 7.0). Monitoring started in August of 2009, and will last for a period of no longer than 10 years, to be determined in consultation with the SHPO.

(1) All sites will be visited at least once each year.

(2) Site visits will be conducted after the completion of training episodes, up to 6 times a year provided regular use and training on BAX occurs. If no training occurs on BAX, sites will not be monitored more than once annually.

b. If monitoring activities identify adverse effects to any of the 124 known archaeological sites, or any other historic properties, located within the BAX SDZ, then the SHPO will be contacted directly via email or telephone within seven days. A report of the sites affected, as well as nature and extent of effects, will be submitted to the SHPO within 60 days. The USAG FW will then develop a plan to mitigate adverse effects to affected archaeological sites in consultation with the SHPO and interested Alaska Native tribes.

FW-PA-1207

c. If mortar full range training rounds are used in the BAX, the USAG FW Cultural Resources will help site the impact area and monitor the retrieval of rounds within the BAX SDZ¹.

III. DATA RECOVERY

Data Analysis: Data analysis of recovered materials from the 2009 fieldwork will be completed in accordance with the research design and methods detailed in *U.S. Army Alaska's Monitoring and Data Recovery Plan for Cultural Resources within the Battle Area Complex Surface Danger Zone, Fort Wainwright, Donnelly Training Area, 2009* (Section 8.0).

IV. CULTURAL RESOURCE AWARENESS TRAINING

To prevent disturbance of archaeological sites by Soldiers training at the BAX range complex, as well as other Army lands in Alaska, the USAG FW will develop an educational program designed to increase soldier awareness of cultural resources on Army lands and the laws that protect these resources. This Soldier educational program will consist of three parts:

a. Updating the USAG FW Archaeological Resource Protection Act (ARPA) tri-fold handout, and ensuring that they are available to Soldiers at newcomer briefings.

b. Development of a graphical and textual display to increase Soldiers' awareness of cultural resources on the BAX SDZ and other Army lands. This display will be presented in the form of, at a minimum, one poster to be displayed at Range Control, and one interpretive panel placard to be displayed at an informational kiosk located at the BAX range.

c. Development of a Cultural Resource Awareness Powerpoint presentation to be given to Soldiers and contractors to increase knowledge of cultural resource concerns and responsible actions, and knowledge of Alaskan Native communities. The presentation will be given to relevant personnel at newcomer briefings, and prior to training or working on the BAX range. This presentation will be given throughout the duration of this PA.

V. SUBMITTALS

a. Report of Monitoring Findings: The USAG FW will submit to the SHPO, the results of monitoring on an annual basis. This will be included as part of the USAG FW Annual Cultural Resources Report.

(1) The BAX SDZ monitoring section of the annual report will include: a list of sites monitored; dates of site monitoring activities; a detailed description of the current overall site condition and integrity; a comparison of the site's current condition to past condition assessments; and photographs of the site. Reports of monitoring findings will include data obtained from the field site monitoring form detailed in *U.S. Army Alaska's Monitoring and Data Recovery Plan for Cultural Resources within the Battle Area Complex Surface Danger Zone, Fort Wainwright, Donnelly Training Area, 2009* (Appendix 1).

¹ Currently, USAG FW has no plans to use long range rounds. Mortar training crews plan to use short range training rounds that do not have the range to leave the BAZ construction footprint to impact the SDZ.

(2) Provided that no adverse effects occur to the sites in question as a result of use of the BAX SDZ, the FW DTA monitoring report will be submitted to the SHPO, Bureau of Land Management (BLM)² and interested Alaska Native tribes no later than May of the year following monitoring activities. If adverse effects are noted, they will be reported to the SHPO.

b. Report of Excavation Findings: the USAG FW will submit to the SHPO the results of the data recovery and subsequent data analysis. The following reports will be submitted:

(1) A preliminary interim report detailing the field work and initial findings will be submitted to the SHPO no later than April 2010. If data recovery extends past 2009, then an interim report will be submitted to the SHPO by the April following each year of fieldwork. Upon receipt of the documentation, the SHPO shall provide the USAG FW with review comments no later than 45 days. [Amendment 1 Update: Stipulation b.(1) is completed; Submitted to the SHPO in 2010]

(2) A final report will be submitted to the SHPO no later than June 2 years following the end of all data recovery fieldwork. Upon receipt of the documentation, the SHPO shall provide the USAG FW with review comments no later than 45 days. Final submittal, taking into consideration the SHPO comments, shall be no later than 60 days after receipt of review comments.

c. Submittal of updated the USAG FW ARPA tri-fold, poster, and placard: as each mitigation project is funded and subsequently initiated the USAG FW will provide drafts of the updated ARPA tri-fold, poster, and placard to the SHPO within two years of the execution of this PA. All products will be complete within 3 years of the execution of this PA.

(1) The SHPO shall have 30 days from hard copy receipt of each draft document to review and provide input.

(2) The USAG FW shall consider any timely input received in developing a second submittal of the draft mitigation projects within 45 days from the close of the review period.

d. All reports will be provided to the BLM cultural resources staff. Copies of the reports with redacted site location information will be sent to interested Alaska Native tribes and be made available to the public on the Army's website.

VI. INADVERTENT DISCOVERIES

a. If cultural remains are inadvertently discovered or there are inadvertent adverse effects as a result of training or other activities associated with this Undertaking, the USAG FW shall initiate consultation pursuant to 36 C.F.R. § 800.13 to resolve unforeseen the effect.

b. If any sacred objects, funerary objects, or objects of cultural patrimony are inadvertently encountered, the area will be avoided. Training will cease in the vicinity of the find, measures will be taken to protect objects, and the Cultural Resource Manager will be notified immediately so that appropriate action can be taken in order to follow regulations set forth in 43 C.F.R. § 10 Native

² Army Standard Operating Procedures requires exchange of information between the Army and BLM; BLM oversees third party permitting on Army lands.

FW-PA-1207

American Graves Protection and Repatriation Act (NAGPRA).

c. If human remains are encountered, then the following actions will be taken:

(1) Training/work will be stopped immediately in the locality and the USAG FW, SHPO, and Alaska State Troopers (AST) shall be contacted immediately (Alaska Statutes 12.65.5);

(2) If the remains appear recent in the judgment of the anthropologist, the USAG FW shall defer to the opinion of the AST and Alaska State Medical Examiner (SME) for a determination of whether the remains are of a forensic nature and/or subject to criminal investigation;

(3) If the ethnic/cultural identity of any human remains is in question, a qualified anthropologist experienced in human remains analysis shall examine the remains. This examination will take place within 30 days of discovery;

(4) If Native American remains are encountered in the archaeological excavations, the USAG FW will follow NAGPRA regulations set forth 43 C.F.R. § 10;

(5) If the remains are not Native American and a determination is made by the AST and Alaska SME that a death investigation is not warranted, then The USAG FW, in consultation with the Alaska SME, will inform the known descendents of the deceased. If no descendents are found, then the remains shall be re-interred in a designated area.

VII. CURATION OF MATERIALS

All recovered artifacts will be curated at the University of Alaska Museum of the North in accordance with an existing Memorandum of Agreement. Data processing of artifacts will follow curation guidelines set by Department of Defense and the University of Alaska Museum of the North.

VIII. PROFESSIONAL STANDARDS

All work pursuant to this PA will be developed by or under the supervision of a person or persons meeting the minimum professional qualifications of an archaeologist as included in "Secretary of the Interior's Historic Preservation Professional Qualification Standards" (Federal Register Vol. 62, No.119, pp. 33719).

IX. DISPUTE RESOLUTION

a. Should any Signatory to this PA object to the manner in which the terms of this PA are implemented, the USAG FW shall consult with the objecting party to resolve the objection. If the USAG FW cannot resolve the objection, the following shall apply:

(1) The USAG FW shall forward all documentation concerning the dispute to the SHPO. The SHPO shall provide the USAG FW with a proposed resolution to the dispute within 30 days of

receiving adequate documentation. If the USAG FW agrees with the SHPO's resolution, then the Undertaking may proceed accordingly;

(2) If the SHPO does not provide its advice regarding the dispute within the 30 days time period, or the USAG FW and the SHPO cannot resolve the dispute, then the USAG FW shall forward all documentation relevant to the dispute, including the USAG FW's proposed resolution, to the ACHP. The ACHP shall provide the USAG FW with its advice on the resolution of the objection within 45 days of receiving adequate documentation;

(3) If the ACHP does not provide its advice regarding the dispute within the 45 days time period, the USAG FW may make a final decision on the dispute and proceed accordingly;

(4) Prior to reaching a final decision on the dispute, the USAG FW shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the SHPO, the ACHP, and Concurring Parties, and provide them with a copy of this written response.

(5) The USAG FW's responsibilities to carry out all other actions subject to the terms of this PA that are not the subject of the dispute remain unchanged.

b. Should any signatory to this PA object in writing to the USAG FW regarding any action carried out or proposed with respect to the implementation of this PA, the USAG FW shall consult with the objecting party. If after initiating such consultation the USAG FW determines that the objection cannot be resolved through consultation, it shall forward all documentation relevant to the objection to the ACHP, including the USAG FW's proposed response to the objection. Within thirty calendar days after receipt of all pertinent documentation, the ACHP shall provide recommendation or comment on the objection.

c. Should the ACHP not provide comment within thirty calendar days after receipt of the pertinent documentation, the USAG FW may assume the ACHP's concurrence in its proposed response to the objections.

d. The USAG FW shall take into account any the ACHP recommendation or comment provided in accordance with this stipulation with reference only to the subject of the objection; the USAG FW responsibility to carry out actions under this PA not the subject of the objection shall remain unchanged.

e. At any time during implementation of any stipulation in this PA, should an objection to any such stipulation or its manner of implementation be raised by a member of the public, the USAG FW shall take the objection into account and consult as needed with the objecting party and the SHPO to address the objection.

FW-PA-1207

X. NOTICES

All notices, submissions, consents, demands, requests, or other communications which may or are required to be given hereunder to any Signatory shall be sent by (a) hand delivery (which shall be deemed to have been received upon delivery), (b) reputable overnight courier (which shall be deemed to have been received one business day after the date sent), (c) United States mail, registered or certified, return receipt requested, postage prepaid (which shall be deemed to have been received upon receipt by the sender of the return receipt), (d) facsimile, with a copy sent by reputable overnight courier (which shall be deemed to have been received when the sender receives a confirmation of successful transmission of the facsimile) or (e) electronic mail (which shall be deemed to have been received when the sender received a confirmation of successful transmission). Such documents shall be sent to the following addresses:

If to USAG FW:

Garrison Commander
U.S. Army Garrison Fort Wainwright
Fort Wainwright, AK 99703
With a copy to:

Directorate of Public Works
Attn: IMFW- PWE (CR Manager)
1060 Gaffney Road, #4500
Fort Wainwright, AK 99703-4500

If to SHPO:

State Historic Preservation Officer
Office of History and Archaeology
550 West 7th Avenue, Suite 1310
Anchorage, AK 99501

XI. AMENDMENT

The USAG FW or SHPO may request that this PA be amended, whereupon they will consult in accordance with 36 C.F.R. § 800 to consider such amendment. In particular, they will consider the information developed in the USAG FW's reports under Stipulations I and II to determine if the USAG FW can effectively or efficiently carry out activities to support its mission through revisions to this PA. No amendment shall take effect until it has been executed by the USAG FW and the SHPO.

XII. TERMINATION

The USAG FW or SHPO may propose to terminate this PA by providing thirty calendar days notice to the other explaining the reasons for the proposed termination. The SHPO and USAG FW will consult during this period to seek agreement on amendments or other actions that will avoid termination. In the event of termination, the USAG FW will comply with 36 C.F.R. §800 with regard to individual undertakings covered by this PA and not completed at time of termination.

XIII. FAILURE TO CARRY OUT AGREEMENT

In the event the USAG FW does not carry out the terms of this PA or if the ACHP determines under 36 C.F.R. § 800 that the terms of this PA are not being carried out, the USAG FW will comply with 36 C.F.R. § 800.3 through § 800.7 with regard to individual undertakings covered by this PA.

XIV. ANTI-DEFICIENCY ACT

a. All requirements set forth in this PA requiring the expenditure of the USAG FW funds are expressly subject to the availability of appropriations and the requirements of the Anti-Deficiency Act (31 U.S.C. §1341). No obligation undertaken by the USAG FW under the terms of this PA will require or be interpreted to require a commitment to expend funds not obligated for a particular purpose.

b. If the USAG FW cannot perform any obligations set forth in the PA due to the unavailability of funds, the USAG FW and SHPO intend the remainder of the agreement to be executed. In the event that any obligation under the PA cannot be performed due to the unavailability of funds, the USAG FW agrees to utilize its best efforts to renegotiate the provision, and may require that the parties initiate consultation to develop an amendment to this PA when appropriate.

XV. DURATION

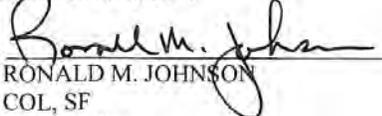
This PA shall become effective upon execution by the USAG FW and SHPO and shall remain in effect until terminated in accordance with Stipulation XII or 7 years after it becomes effective. If training activities on the BAX are ongoing during that time, then the USAG FW and SHPO will review and extend this PA as necessary.

EXECUTION AND IMPLEMENTATION of this Programmatic Agreement evidences that the USAG FW has satisfied its Section 106 and Section 110(f) responsibilities for this Undertaking.

FW-PA-1207

Signatories:

UNITED STATES DEPARTMENT OF THE ARMY
FORT WAINWRIGHT

By: 
RONALD M. JOHNSON
COL, SF
Commanding

Date: 4 September 2012

ALASKA STATE HISTORIC PRESERVATION OFFICER

By: 
JUDITH E. BITTNER
deputy State Historic Preservation Officer

Date: September 19, 2012

FW-PA-1207

Concurring Parties:

BUREAU OF LAND MANAGEMENT, CENTRAL YUKON FIELD OFFICE

By: _____

Name:

Title:

Date: _____

FW-PA-1207

Exhibit 1

Robertson, A.R.

2009 *U.S. Army Alaska's Monitoring and Data Recovery Plan for Cultural Resources within the Battle Area Complex Surface Danger Zone, Fort Wainwright, Donnelly Training Area, 2009*. Edited by E.P. Gaines. Colorado State University, Center for Environmental Management of Military Lands

[Submitted to the SHPO April 22, 2009]

Exhibit 2

2012 Adjusted site list and monitoring schedule (all ineligible sites were removed)

[Submitted to the SHPO with this PA]

SITE #	NRHP Status	Monitoring Visits
XMH-00274	Not Evaluated	Annual
XMH-00277/00879	Eligible	Annual
XMH-00278	Not Evaluated	Annual + After Training
XMH-00279/00918	Eligible	Annual + After Training
XMH-00284/00882	Eligible (excavated)	Annual
XMH-00292/00885	Eligible	Annual + After Training
XMH-00322	Not Evaluated	Annual + After Training
XMH-00323/00893	Not Evaluated	Annual + After Training
XMH-00874	Eligible (excavated)	Annual
XMH-00878/00908	Eligible	Annual + After Training
XMH-00881	Eligible	Annual
XMH-00886	Not Evaluated	Annual + After Training
XMH-00887	Eligible	Annual + After Training
XMH-00890	Eligible	Annual + After Training
XMH-00891	Eligible	Annual + After Training
XMH-00894	Not Evaluated	Annual + After Training
XMH-00902	Not Evaluated	Annual + After Training
XMH-00903	Not Evaluated	Annual + After Training
XMH-00904	Eligible	Annual + After Training
XMH-00905	Not Evaluated	Annual + After Training
XMH-00906	Not Evaluated	Annual + After Training
XMH-00907	Not Evaluated	Annual + After Training
XMH-00909	Not Evaluated	Annual + After Training
XMH-00910/00911	Not Evaluated	Annual + After Training
XMH-00913	Not Evaluated	Annual + After Training
XMH-00914	Not Evaluated	Annual + After Training
XMH-00915	Not Evaluated	Annual + After Training

XMH-00917	Not Evaluated	Annual + After Training
XMH-00919	Not Evaluated	Annual + After Training
XMH-00920	Eligible	Annual + After Training
XMH-00921	Not Evaluated	Annual + After Training
XMH-00923/00922	Not Evaluated	Annual + After Training
XMH-00924	Not Evaluated	Annual + After Training
XMH-00925	Not Evaluated	Annual + After Training
XMH-00926	Not Evaluated	Annual + After Training
XMH-00927	Not Evaluated	Annual + After Training
XMH-00928	Not Evaluated	Annual + After Training
XMH-00929	Not Evaluated	Annual + After Training
XMH-00945	Eligible	Annual + After Training
XMH-00983	Not Evaluated	Annual
XMH-01070	Not Evaluated	Annual
XMH-01071	Not Evaluated	Annual + After Training
XMH-01074	Not Evaluated	Annual + After Training
XMH-01075	Not Evaluated	Annual + After Training
XMH-01076	Not Evaluated	Annual + After Training
XMH-01077	Not Evaluated	Annual + After Training
XMH-01078	Not Evaluated	Annual
XMH-01084	Not Evaluated	Annual
XMH-01085	Not Evaluated	Annual + After Training
XMH-01086	Not Evaluated	Annual + After Training
XMH-01087	Not Evaluated	Annual + After Training
XMH-01088	Not Evaluated	Annual + After Training
XMH-01089	Not Evaluated	Annual
XMH-01090	Not Evaluated	Annual
XMH-01091	Not Evaluated	Annual
XMH-01092	Eligible	Annual + After Training
XMH-01093	Eligible	Annual
XMH-01095/01142	Not Evaluated	Annual + After Training
XMH-01096	Not Evaluated	Annual
XMH-01097	Not Evaluated	Annual
XMH-01098	Not Evaluated	Annual
XMH-01099	Not Evaluated	Annual
XMH-01100	Not Evaluated	Annual
XMH-01104	Not Evaluated	Annual
XMH-01105	Not Evaluated	Annual
XMH-01106	Not Evaluated	Annual
XMH-01107	Eligible	Annual
XMH-01108	Not Evaluated	Annual
XMH-01109	Eligible	Annual
XMH-01110	Eligible	Annual
XMH-01111	Not Evaluated	Annual
XMH-01114	Not Evaluated	Annual
XMH-01115/01117	Eligible	Annual

FW-PA-1207

XMH-01365	Not Evaluated	Annual
XMH-01366	Not Evaluated	Annual
XMH-01367	Not Evaluated	Annual
XMH-01368	Not Evaluated	Annual
XMH-01377	Not Evaluated	Annual
XMH-01378	Not Evaluated	Annual
XMH-01384	Not Evaluated	Annual



THE STATE
of **ALASKA**
GOVERNOR SEAN PARNELL

Department of Natural Resources

DIVISION OF PARKS AND OUTDOOR RECREATION
Office of History and Archaeology

550 West 7th Avenue, Suite 1310
Anchorage, Alaska 99501-3565
Web: <http://dnr.alaska.gov/parks/oha>
Phone: 907.269.8721
Fax: 907.269.8908

September 19, 2012

File No.: 3480 ARMY BAX SDZ

Michael T. Meeks
Director, Directorate of Public Works
Department of the Army
Headquarters, U.S. Army Garrison Fort Wainwright
1060 Gaffney Road, #6000
Fort Wainwright, Alaska 99703-6000

Subject: First Amended Programmatic Agreement Between the United States Department of the Army and the Alaska State Historic Preservation Officer Regarding Monitoring and Treatment Plan of Archaeological Sites Located within the Surface Danger Zone (SDZ) of the Battle Area Complex (BAX) Training Facility at Fort Wainwright, Donnelly Training Area

Dear Mr. Meeks:

The Alaska State Historic Preservation Office (AK SHPO) received your correspondence (dated September 9, 2012) on September 11, 2012.

Following our review of the documentation provided, we have signed the amended Programmatic Agreement (PA) and are returning a copy with the original SHPO signature for your records. Once fully executed, we look forward to receiving a copy for our records.

Thank you for the opportunity to comment. Please contact Shina duVall at 269-8720 or shina.duvall@alaska.gov if you have any questions or if we can be of further assistance.

Sincerely,

A handwritten signature in blue ink that reads "Judith E. Bittner".

Deputy Judith E. Bittner
State Historic Preservation Officer

JEB:sad



DEPARTMENT OF THE AIR FORCE
PACIFIC AIR FORCES

OCT 03 2012

Colonel Patrick O. Moylan
Vice Commander, Eleventh Air Force
9480 Pease Ave Ste 101
Joint Base Elmendorf-Richardson Alaska 99506-2101

Ms. Judith Bittner
Alaska State Historic Preservation Officer
Office of History and Archaeology
Department of Natural Resources
550 West 7th Avenue, Suite 1310
Anchorage Alaska 99501

Dear Ms. Bittner

The Alaskan Command (ALCOM) requests your concurrence with the finding of No Historic Properties Affected for the *Environmental Impact Statement for the Modernization and Enhancement of Ranges, Airspace, and Training Areas in the Joint Pacific Alaska Range Complex in Alaska* Realistic Live Ordnance Delivery (RLOD) proposed action.

Based on the nature of the proposed action, no historic properties will be affected within the Areas of Potential Effect for the Realistic Live Ordnance Delivery proposal. Pursuant to Section 106 of the National Historic Preservation Act of 1966 (16 USC § 470), and according to the regulations governing Section 106, 36 CFR Part 800 "Protection of Historic Properties," a determination is made of No Historic Properties Affected.

Survey results are attached to support a finding of No Historic Properties Affected. The U.S. Army Garrison Fort Wainwright, Alaska will be conducting any additional Section 106 consultation necessary for the definitive projects affecting Army-managed lands.

All correspondence associated with this consultation will be included in the Administrative Record of the EIS. If you have any questions regarding the proposals or regarding this request, please feel free to contact Mr. Jamie Spell at (907) 552-1695, LTC Russell Price at (907) 552-3683, or Ms. Erin Marynak at (907) 552-3791.

Sincerely


PATRICK O. MOYLAN
Colonel, USAF
Vice Commander

Attachment:
Realistic Live Ordnance Delivery Proposal Survey Results

Introduction

This document fulfills the interim reporting requirements for the Archaeological Studies for Realistic Live Ordnance Delivery (RLOD) and Battle Area Complex (BAX) portion of Contract W911KB-10-12-0001, Task Order 89, and can be used to begin Section 106 correspondence with the State Historic Preservation Officer (SHPO) for the construction and use of RLOD targets.

As part of the Joint Pacific Alaska Range Complex (JPARC), the Air Force has proposed to establish two temporary target areas in Donnelly Training Area (DTA) West.

The Section 106 of the National Historic Preservation Act (NHPA) (16 USC § 470, as amended 2000) review of the current project was conducted in August 2012. No historic properties will be affected by the undertaking. Application of the Criteria for Adverse Effect [36 CFR 800.5(a)] indicates a finding of "No Historic Properties Affected" for the RLOD target construction and use.

Project Setting and Environment

The proposed project is located on Fort Wainwright's DTA (Figure 1) south of Delta Junction, Alaska. The terrain of the area is characterized by round, even-topped, west to east oriented ridges that rise above adjacent valley floors to an elevation of 600-1500 m above sea level (masl). The surface topography has been carved by multiple glacial events and subdued further in some areas by the addition of moraine and outwash (Pink 2005). DTA lies within the Northern Foothills of the Alaska Range. The foothills are largely unglaciated, but past glaciations widened valleys and valley glaciers extend onto the installation. In the eastern portion of the training area elevation rises abruptly and steep slopes are incised by Holocene creeks and rivers.

Bedrock is primarily composed of Precambrian schist overlain by Cretaceous granites and Tertiary volcanic rocks. The volcanic rocks were an important raw material source for prehistoric peoples living in this area. Glacial moraine and alluvial outwash fans are among the most common surface sediments (Holmes 1965). The parent materials for soils in DTA are glacial and aeolian in origin, and profiles typically contain an organic layer above loess above till (Natural Resource Conservation Service 2010).

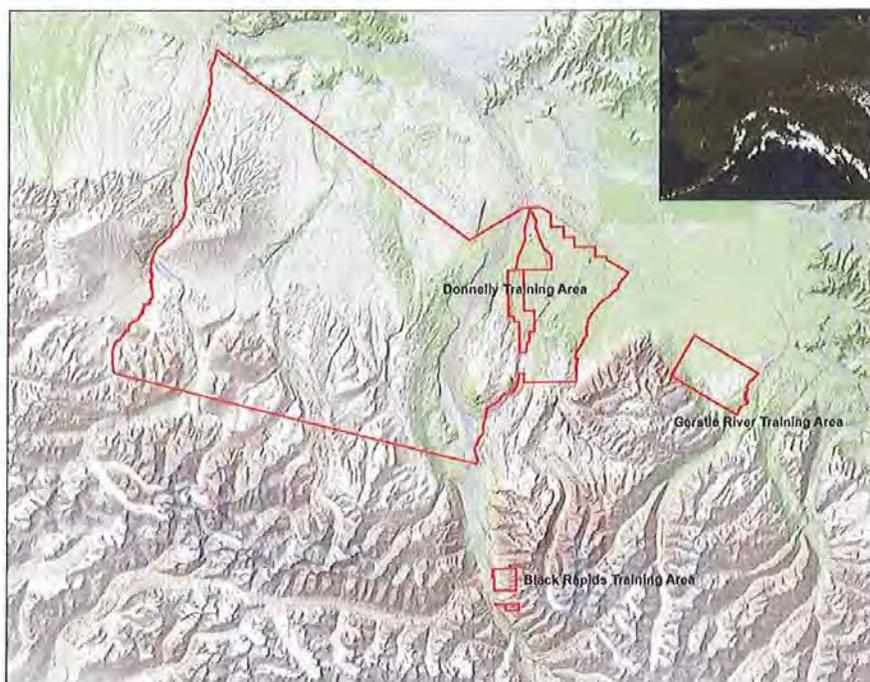


Figure 1. Location of the USAG FWA's DTA in central Alaska.

Historic Background

Prehistoric Context

Interior Alaska has been continuously inhabited for the last 14,000 years, and evidence of this continuum of human activity has been preserved within and around FWA's training lands. Interior Alaska's ice-free status during the last glacial period provided a corridor connecting the Bering Land Bridge and eastern Asia to North America. This allowed small bands of nomadic peoples to colonize Alaska and the rest of the continent and began a period of habitation in Interior Alaska that has persisted through the entire Holocene, the arrival of European traders in the late 1810s, the Klondike gold rush of the late 19th and early 20th centuries, and the military development of the Interior during the middle of the 20th century. FWA's cantonment and training lands comprise a vast and still relatively unsurveyed region with areas of high potential for yielding evidence of this activity.

Alaska has long been regarded as the gateway to the Americas and has held archaeological interest as the possible location for the oldest archaeological sites in the New World. This is due to more than Alaska's proximity to Asia and ice-free condition at the end of the Pleistocene. Similarities between archaeological assemblages in Siberia and Alaska and the discovery of lanceolate projectile points in the muck deposits around

Fairbanks in the early 1900s (which bore a resemblance to Clovis points of some antiquity in the American Southwest) also sparked interest in Alaska as a source area for all Native Americans.

After initial colonization, archaeologists generally divide Interior Alaska's prehistory into three broad archaeological themes: the Paleoarctic Tradition (12,000-6,000 years ago¹), the Northern Archaic Tradition (6,000-1,000 years ago), and the Athabaskan Tradition (1,300-800 years ago) (Potter 2008). Archeological materials from these cultures are generally limited to lithic artifacts such as projectile points, cutting tools, scrapers, waste flakes from tool manufacturing, faunal remains, and hearths.

Reconstructions of paleoecological evidence suggest that the end of the Pleistocene was marked by a warming trend in Interior Alaska that may have contributed to initial colonization of the area (Bigelow and Powers 2001). Several sites in areas surrounding Army lands demonstrate that people began living in Interior Alaska 14,000 years ago. Significant sites in the Tanana Valley dating between 14,000-12,000 years ago include Healy Lake (Bigelow and Powers 2001), Walker Road (Bigelow and Powers 2001), Swan Point (Bigelow and Powers 2001), Mead (Bigelow and Powers 2001), and Broken Mammoth (Bigelow and Powers 2001). There are no sites in Alaska, however, that predate the oldest sites in the contiguous United States, nor do Alaska's oldest sites resemble the Clovis culture (Bigelow and Powers 2001). The Younger Dryas cooling event from 13,000-12,000 years ago (Bigelow and Powers 2001) may have led to a temporary population decline (Potter 2008) in the Interior before permanent colonization.

The Paleoarctic Tradition is a term now generally used by archaeologists to refer to the earliest settled people known from all over Alaska. It was originally defined by Anderson² (Anderson 1968, 1970) as the earliest microblade-using tradition in the American Arctic, with a proposed relationship to northeast Asian late Pleistocene cultures based on similarities in these distinctive artifact types. Archaeological evidence indicates that early settlers camped on terraces, lakeshores, buttes, and bluffs. By using these locations on high ground, they could locate and track prey that included large mammals such as mammoth and bison. Evidence from the Upward Sun River Site, located just 5 km southeast of TFTA, for example, demonstrates that hunter-gatherers in Interior Alaska were concentrating on bison and wapiti at the end of the Pleistocene (The Upward Sun River Site is also known for one of the earliest burials in the Americas [Potter 2008; Potter et al. 2008; Potter et al. 2011]). It is likely that the treeless environment and nomadic nature of these peoples had a direct impact on the kinds of tools they fashioned. Stone, bone, antler, and ivory provided the most abundant material for manufacturing weapons and cutting tools. Artifacts typically associated with this culture include small stone microblades, microblade cores, bifacial projectile points, and unifacial scraping tools.

In Interior Alaska, this tradition historically included two cultural divisions called the Nenana and Denali complexes. The Nenana Complex was identified by Powers and

¹ All dates are given in calendar years *before present*.

² Anderson called it the "American Palaeoarctic Tradition," but most researchers use the shortened version.

Hoffecker from sites in the Nenana Valley (Powers and Hoffecker 1989). This complex began approximately 11,000 years ago with an artifact assemblage that included triangular or teardrop-shaped, bifacially worked projectile points (“Chindadn” points [Cook 1969; 1975; Holmes and Cook 1999]); large unifacial chopper-like tools; and flake tools. The Nenana Complex is defined as lacking microblades, microblade cores, and burins, and was proposed to predate the microblade-rich Denali Complex. Many Nenana Complex archaeological sites are located in the Tanana Valley, adjacent to FWA training lands (Broken Mammoth [Holmes 1996; Yesner et al. 1999], Chugwater [Lively 1996], Donnelly Ridge [West 1967; 1996, Donnelly Ridge is located in DTA], Healy Lake [Cook 1989], Mead [Holmes 2007] and Swan Point [Holmes et al. 1996; Holmes 1998; 2007]).

The Denali Complex, dated roughly to 10,500 to 8,000 years ago, was originally defined by West (West 1967; 1975) and includes distinctive wedge-shaped microblade cores, core tablets and their derivative microblades, large blades, biconvex bifacial knives, certain end-scraper forms, and burins. West later defined the Denali Complex as a regional variant of the American Paleoarctic Tradition (West 1981). Denali sites in the vicinity of FWA’s training lands include Mt. Hayes (West 1996), Swan Point (Holmes et al. 1996; Holmes 1998, 2007), and Gerstle River (Potter 2001). At least one site in TFTA (FAI-2043) has also been dated to this period.

The relationship between the proposed Nenana and Denali complexes is as of yet unresolved. As discussed above, some researchers view the Nenana Complex as a bifacial industry that predates the microblade-based Denali Complex. However, current research at sites such as Swan Point and Broken Mammoth indicates that microblades and burins were used by the earliest known cultures in Interior Alaska, with a later co-occurrence with Chindadn points—the defining artifact type of the Nenana Complex. Although some archaeologists still believe that there is a cultural distinction between the Nenana and Denali complexes (e.g., Dumond 2001), the general understanding from Interior Alaskan archaeologists is that there is a behavioral explanation for the presence or absence of microblades in different assemblages (Holmes 2001; Potter 2008; Yesner and Pearson 2002). Moreover, both Nenana and Denali technology persist in central Alaska throughout the Holocene (Bever 2006).

Site density declined in the areas around FWA in the early Holocene, suggesting a slight depopulation during a period of climate change that initiated the widespread establishment of spruce forests (Potter 2008). The boreal forest in Interior Alaska was established by 8,000 years ago (Bigelow and Powers 2001). Sites from this time period are less well publicized than the older sites, but include Houdini Creek (circa 8,600 years old), Hurricane Bluff (c. 9,800 years old), Lucky Strike (c. 8,500 years old), Gerstle River (c. 10,000 years old), and the Campus Site (c. 7,700 years old) (Pearson and Powers 2001; Potter et al. 2007; Potter 2008). Bison, wapiti, and birds were the most important subsistence game during this period (Potter 2007, 2008).

Site density increased again after about 6,000 years ago in Interior Alaska (Potter 2008). This population increase coincides roughly with the Northern Archaic Tradition and the appearance of side-notched projectile points. Anderson originally defined the

Northern Archaic Tradition to specifically address notched point-bearing stratigraphic horizons that did not contain microblades at the Onion Portage site in northern Alaska (Anderson 1968). Alaskan notched points were generally similar to Archaic-age dart points in the contiguous United States. Time has shown middle Holocene assemblages in Alaska to be quite diverse, however, and it is questionable whether this trait is related to southern forms or if it is a reliable indicator of cultural affiliation (Clark 1992; Cook and Gillespie 1986). Artifact assemblages associated with this culture can vary but generally contain myriad tools ranging from bifacial knives and microblades to end scrapers and side-notched points. Middle Holocene hunter-gatherers had a subsistence economy focused on seasonally abundant game including caribou, fish, and moose (Potter 2008). Notched point assemblages occur in many sites in Interior Alaska, including over one dozen on Army lands (XBD-277, XMH-277, XMH-283, XMH-303, XMH-309, XMH-874, XMH-950, XMH-1130, XMH-1168, XMH-1300, Robertson et al. 2004, Raymond-Yakoubian and Robertson 2005.) Several sites (XBD-270, XMH-915, XMH-925), including the excavated Banjo Lake site in DTA (XMH-874), have also produced middle Holocene dates from hearth charcoal. The 6,300-6,700-year-old dates from Banjo Lake were also associated with a microblade component (Robertson et al. 2008).

Utilization of microblade and burin-based industries appears to continue through the middle and late Holocene in Interior Alaska (Esdale 2008; Potter 2004). By the late Holocene, archaeologists see a shift from seasonal large mammal hunting with a nomadic lifestyle to a focus on seasonally over-abundant resources, use of storage, and more permanent settlements (Potter 2008b). Artifact assemblages do not drastically change until the last millennium of the Holocene when microblades disappear from the archaeological record (Potter 2008).

Linguistic evidence suggests that the Athabaskan culture may have appeared in the Tanana Valley as early as 2,500 years ago. Through ethnography, oral history, and a broad array of cultural items, much has been learned about Athabaskan culture and history in the region. Artifacts associated with the Athabaskan culture are exceptionally diverse and include bone and antler projectile points, fishhooks, beads, buttons, birch bark trays, and bone gaming pieces. In the Upper Tanana region, copper was available and used in addition to the traditional material types to manufacture tools such as knives, projectile points, awls, ornaments, and axes (Clark 1981). A late prehistoric Athabaskan occupation is recognized at several sites in and around FWA's training lands (Andrews 1975; Andrews 1987; Cook 1989; Mishler 1986; Sheppard et al. 1991; Shinkwin 1979; Yarborough 1978). Of particular interest in this regard is a copper projectile point recently found in a buried context at DTA (XBD-272) (Robertson et al. 2009).

The Athabaskan Tradition includes late prehistoric and proto-historic cultures generally believed to be the ancestors of Athabaskan tribes who currently inhabit Interior Alaska. Excavated Athabaskan sites are rare, but the limited body of evidence allows for several generalizations. Raw material usage was reorganized in the Athabaskan Tradition, which de-emphasized stone tool-making and increased the emphasis on the manufacture of items from native copper and organic materials (Dixon 1985). Assemblages include ground and pecked stone artifacts and an increased use of expedient

tools. There was a broadening and diversifying of the resource base at this time to include small mammal and freshwater marine animals such as fish and mollusks (McFadyen Clark 1981; McFadyen Clark 1996; Ream 1986; Sheppard et al. 1991; Shinkwin 1979). Athabaskan sites tend to occur in resource-rich areas near lakes, streams and rivers, and are generally characterized by large house pit and cache pit features. Proto-historic Athabaskan assemblages include Euro-American trade goods such as glass beads and iron implements. Sites of this time period reflect an increased reliance on outside trade and include log cabins co-occurring with traditional house pits, as well as a change in site location to maximize trading opportunities (Andrews 1975; Andrews 1977; Andrews 1987; McFadyen Clark 1981; VanStone and Goddard 1981).

Athabaskan settlement patterns depended greatly on the availability of subsistence resources, and Interior bands lived a nomadic lifestyle. They often traversed vast areas to support themselves and spent considerable time engaged in subsistence activities. It was often necessary for bands to divide into smaller groups to find game, and preserved fish were used as a staple of the diet in addition to fresh game (Andrews 1975).

Four Athabaskan linguistic and geographic groups have inhabited the Tanana Valley: the Upper Tanana, Tanacross, Tanana and Koyukon. Each group is further distinguished according to geographic location. Bands of the Tanana and Tanacross groups are historically associated with the geographic area that embodies Forts Wainwright and Greely. Salcha, Chena, Wood River, Goodpaster, and Healy Lake bands have inhabited the region since protohistoric times and possibly even prehistoric times (Andrews 1975). Use of the region varied from one band to the next. The Salcha, Chena, Goodpaster, and Wood River bands of the Tanana Athabascans and the Healy Lake band of the Tanacross Athabascans used certain parts of what are now Forts Wainwright and Greely (McKenna 1981). Several villages have been reported on or near FWA. One occupied by the Wood River band is said to have been located in the southern part of FWA but has not been found (Dixon 1980; Reynolds 1986). The Blair Lakes Archaeological District (FAI-335) on FWA may relate to the prehistory of the Athabaskan Tradition. Euro-American historic archaeological sites are also present (Gamza 1995; Phillips 1984).

Historic Context

With the beginning of Euro-American contact in Interior Alaska in the early 19th century, trade influences and influxes of new populations began to change life in the region. Land use patterns shifted from traditional indigenous uses to activities based on Euro-American economic and political systems. FWA's training lands fall within an area occupied at the time of Euro-American contact by Lower-Middle Tanana Athabascans, including bands described generally as the Salcha, Big Delta-Goodpaster, Wood River, and Chena bands (McKenna 1981; Andrews 1975; Mishler 1986). Historical accounts document traditional settlement patterns that were focused on a widely mobile season round, with the fall caribou hunt playing a pivotal role in subsistence preparations for the winter and summer activities focused at fish camps, berry and root collecting, and in sheep hunting. These activities were frequently communal, with several local bands connected by common interest, geography, and intermarriage. Despite anthropological attempts to define boundaries for the peoples living in the lower Tanana River Valley,

natural terrain served as the only definable boundary to settlement patterns (McKenna 1981).

As Euro-American traders, miners, missionaries, and explorers moved into the Tanana River Valley, the traditional life ways of local Athabaskan groups were disrupted. Access to trade goods and the development of the fur trade not only affected traditional material culture, but also began to dramatically affect subsistence activities and settlement patterns. Similarly, the arrival of missionaries in the Alaskan Interior profoundly influenced traditional social organization. The introduction of mission schools for Native children and the doctrine of new religious beliefs contributed to an erosion of traditional practices (McKenna 1981).

Russian fur traders began settling Interior Alaska starting in the 1810s, establishing a post at Nulato on the Yukon River and one at Taral on the Copper River. British traders established Fort Yukon in 1847. Trade goods from these posts may have passed to Tanana Athabascans and Upper Tanana Athabascans through intra-Native trade networks. Direct contact between Tanana Athabascans and white traders increased after the 1860s. With the U.S. purchase of Alaska in 1867, control of trading stations and the fur trade passed to Americans. Through the 1880s, American traders established several additional posts on the Yukon and Tanana Rivers, including locations at Nuklukayet (modern day Tanana), Belle Isle (modern day Eagle), and Fort Yukon.

Trade goods introduced by Euro-American settlers influenced the Native lifestyle. Clothing, staples, tools, and other necessities could be obtained through trade. Guns allowed hunters to obtain game with greater efficiency. Gradually, Athabaskan Native groups began to alter their traditional nomadic patterns in favor of more permanent settlements. However, while significant, this contact would not have as dramatic an impact on the region as the discovery of gold in the Interior during the last decades of the 19th century. The towns established by Euro-American settlers at the turn of the 20th century, in response to the Klondike Gold Rush and the eventual military development of the region, would rapidly and permanently change the demography and economy of Interior Alaska.

Gold strikes in the Fortymile River region, Birch Creek area, and the Canadian Klondike began drawing miners and prospectors north in the 1880s and 1890s. In response to this gold rush, E.T. Barnette established a trading post on the Chena River in 1901. The following year, prospector Felix Pedro discovered gold nearby, and a new gold rush soon led to the founding of Fairbanks at the site of Barnette's original trading post. Most mining activities in the region occurred on creeks north of Fairbanks, with the town serving as a supply center. Agricultural and other commercial activities, such as logging, also developed to support mining activities in the Fairbanks area. Homesteads existed on parts of what is today the main post of FWA as early as 1904.

In 1898, the discovery of gold in the Tanana uplands began a rush of Euro-American settlement into the Tanana River Valley. As the economic importance of the Tanana Valley increased, the need for reliable transportation routes and communication systems rose in tandem. Existing trails, such as the Bonfield, Donnelly-Washburn, and Valdez-

Fairbanks trails, saw increased use and development in the first decade of the 20th century. This increase in activity also resulted in the establishment of several roadhouses and posts. In 1906, Congressional appropriations led to improvement of the Valdez-Fairbanks Trail, crossing the Alaska Range south of Delta Junction, following the Tanana River to Fairbanks. Completion of the Alaska Railroad in 1923 was followed two decades later by construction of the Alaska Highway in 1942, firmly tying the Alaskan Interior to the outside.

As Fairbanks grew in the first decade of the 20th century, several agricultural homesteads were developed on lands now encompassed by sections of the FWA cantonment. These homesteads provided Fairbanks with a variety of agricultural products and wood for fuel, but were subsumed when lands were withdrawn for the creation of Ladd Field, which later became FWA (Price 2002).

Riverboats were the primary means of getting people and supplies into the Interior at the turn of the 20th century. The Fairbanks town site was located at the upper limit of navigation for stern-wheeler riverboats on the Chena River. Upriver from that point, residents navigated the river using shallow-draft boats in summer and sleds in winter. As commerce in the area increased, roads and trails were constructed, sometimes following earlier indigenous routes. The major overland route to the coast was the Valdez-Fairbanks Trail, which began as a military trail from Valdez to Eagle in 1899.

Transportation and communication networks, including the Alaska Railroad, were developed to serve new settlements in Interior Alaska. A branch of the railroad route was extended to Fairbanks in 1904. Roadhouses along the route catered to travelers. Some were located on what are now Fort Wainwright training lands. One property was on the Bonifield Trail in TFTA, and two roadhouses and a seasonal tent operation existed along the Donnelly-Washburn Trail in the current Donnelly Training Area. Secondary routes connected Fairbanks to the surrounding mining districts.

By 1910, most of the easily accessible placer gold deposits were exhausted, and capital-intensive technologies became necessary to extract remaining deposits. These methods were not possible with the existing transportation infrastructure. The completion of the Alaska Railroad in 1923 expanded transportation options for the region, connecting Fairbanks to Seward and making large-scale dredging operations economically feasible. Aviation also became a key component of Interior transportation, beginning in earnest in the 1920s. However, it was not until 1931 that Weeks Field, originally constructed in 1923, was officially dedicated as an airfield. Industrialized corporate activity became the hallmark of the region's mining in the remaining years before World War II.

Development in the Alaskan Interior increased dramatically with the advent of World War II and subsequent military build-up in Alaska. Of particular significance was the development of airfields near Delta Junction (Fort Greely), Fairbanks (Ladd Field, later FWA), and North Pole (Eielson Air Force Base). These locations began as Lend-Lease bases and cold weather testing centers, but soon expanded with the increased need for military support during World War II and later during the Cold War.

Full historic contexts of early mining, transportation, and homesteads on FWA have been completed. These studies have determined that there are no properties eligible for the National Register under these contexts. Several village sites associated with the early contact period have been reported near FWA. One was reported near Wood River Buttes, two just northwest of the installation's boundary and one near Fairbanks (Reynolds 1986). None have been reported or located on the Main Post.

Status of Archaeological Resources

Archaeological research on FWA training areas has resulted in numerous technical reports (Bacon 1979; Bacon and Holmes 1979; Dixon et al. 1980; Esdale and Robertson 2007; Espenshade 2010; Bradley et al. 1973; Gaines 2009; Gaines et al. 2010, 2010; Hedman et al. 2003; Higgs et al. 1999; Holmes 1979; Johnson and Bozarth 2008; Marshal 2007; Potter 2005; Potter et al. 2000; Rabich and Reger 1978; Raymond-Yakoubian 2006; Raymond-Yakoubian and Robertson 2005; Robertson 2010; Robertson et al. 2004, 2006, 2007, 2008, 2009; Staley 1993) and several scientific papers (Holmes and Anderson 1986; West 1967, 1975).

FWA and its training lands contain 636 known archaeological sites and 4 archaeological districts. Sixty sites are eligible for the National Register of Historic Places (NRHP), 512 sites have not been evaluated, and 64 additional sites have been determined ineligible for the NRHP. Of the eligible or un-evaluated sites, 12 are historic sites and 560 are prehistoric sites.

Archaeological surveys of the FWA main post area began in 1979. Jim Dixon surveyed the north side of the Chena River and Birch Hill area, discovering and relocating several prehistoric archaeological sites (FAI-40, 41, 42, 43, 199, and 200) (Dixon et al. 1980). Surveys of the main post building areas continued in the 1980s by Julia Steele (Steele 1992, 1983) and Georgeanne Reynolds (Reynolds 1983, 1985). No sites were found in these previously disturbed areas. John Cook surveyed the River Road pond in 1996 and found one site (FAI-509), which has failed to be relocated in subsequent attempts. In 2001, the Army began partnering cultural resource surveys and evaluations with Colorado State University's Center for Environmental Management of Military Lands (CEMML). Surveys by several different principal investigators have targeted areas of construction undertakings. Two historic sites (FAI-1603 and 1604) and one additional prehistoric site (FAI-1990) were found in these investigations. In 2011, CEMML completed survey of the entire cantonment, north and south of the Chena River, discovering one additional historic site (FAI-2117). Of the 11 archaeological sites known from the FWA cantonment, 2 (FAI-1603 and 1604) have been determined not eligible. The remaining sites have not yet been evaluated.

Archaeological sites were first identified in the Tanana Flats Training Area (TFTA) in 1973 by Zorro Bradley and others who conducted a survey in the Blair Lakes area (Bradley et al. 1973). James Dixon continued surveys for archaeological district designations in the regions of Blair Lakes (District FAI-335), Clear Creek Butte (District FAI-336), and Wood River Buttes (District FAI-337) (Dixon et al. 1980). In 1993, proposed work in the Clear Creek Butte area prompted a contract to relocate several

archaeological sites (Staley 1993.) These three districts have been revisited by CEMML archaeologists a few times over the last decade, and notably 92 new sites were found in 2009-2010 during survey of the Wood River Buttes, Salmon Loaf, and north and east of Blair Lakes. In total, archaeologists have identified 147 archaeological sites in TFTA. Of these sites, 11 have been determined eligible for inclusion in the National Register (FAI-44, 45, 46, 48, 49, 54, and 194 to 198), 2 are not eligible (FAI-1607 and 2046), and 134 remain to be evaluated for eligibility.

The road system in the Yukon Training Area (YTA) was the first of many areas to be investigated. Charles Holmes discovered eight sites in a 1978 road survey (Holmes 1979). John Cook conducted a Determination of Eligibility (DOE) evaluation on one of these sites in 1979 (Cook 1979.) Michael Kunz surveyed the Stuart Creek area in 1992 but discovered no archaeological sites, and Northern Land Use Research's 1999 survey of Stuart Creek and the YTA road system uncovered one historic site (Higgs et al. 1999). CEMML archaeologists have been surveying portions of YTA in conjunction with construction projects on an annual basis since 2001. Currently, North Beaver Creek, Skyline, Johnson, Quarry, Brigadier, and Manchu roads in YTA are almost entirely surveyed, as is the area east of Skyline Road outside of the Stuart Creek Impact Area, McMahon Trench, the Manchu Range, and the majority of Training Areas 307 and 310, north and south of Manchu and Quarry roads. Twenty archaeological sites have been identified in YTA. Ten of the sites have been determined not eligible for listing in the National Register (FAI-157, XBD-93, 94, 95, 103, 104, 186, 260, 264, and 266) and ten have not been evaluated. XBD-162 will not be evaluated due to its location in a heavily used portion of the Stuart Creek Impact Area.

Archaeological investigations in what is now the DTA began in the 1960s, when Frederick West was searching for sites related to the first Americans (West 1967). He excavated the Donnelly Ridge site (XMH-5) in 1964 and found an assemblage containing microblade core technology similar to early Holocene Denali Complex sites. Several surveys of Ft. Greely and adjacent training lands in the late 1970s documented 64 new sites (Rabich and Reger 1977, Bacon 1979; Holmes 1979; Bacon and Holmes 1979). Julia Steele surveyed various locations in DTA from 1980-1983, finding four additional new sites (Steele 1980, 1980, 1982, 1982, 1983, and 1983), and Georgianne Reynolds surveyed the Donnelly Dome area in 1988, locating one more (Reynolds 1988). Investigations in DTA from 1992-2002 were by D. Staley (Staley 1993), T. Gamza (Gamza 1995), A. Higgs (Higgs et al. 1999), and D. Odess (Odess 2002). Sixteen new sites were found during this decade of fieldwork and attempts were made to relocate old sites.

Concentrated efforts to expand survey coverage of DTA East began with CEMML archaeologists in 2002. Over 200 new sites were located in the Texas Range, Donnelly Drop Zone, and Eddy Drop Zone in the first half of the decade. In 2007, one site was found in the northernmost portion of DTA West by Ben Potter and others during survey for the Alaska Railroad Northern Rail Extension Project (Potter et al. 2007). In recent years, CEMML research aimed to evaluate many known archaeological sites in DTA for inclusion in the National Register in conjunction with use of the Battle Area Complex and its surface danger zone. Sites have also been discovered during surveys for road and

trail maintenance. Potential expansions into DTA West, west of the Delta River, have prompted recent surveys into new areas such as Molybdenum Ridge, where 21 new sites were discovered in 2011. Because of its remote setting, however, the archaeology of Donnelly West is still poorly understood and represents a gap in USAG FWA's inventory of cultural properties. The Cold Regions Test Center (CRTC) has also contracted with CEMML and others since the last ICRMP to survey areas in DTA West, east of the Little Delta River, and many new archaeological sites have been recorded (Espenshade 2010).

To date, 455 archaeological sites have been identified within DTA. Forty-nine sites have been found to be eligible for the National Register, and 50 were found not eligible. An additional 356 sites remain to be evaluated. Historic archaeology sites are poorly represented in this region, with only six currently known to exist. The Donnelly Ridge District (XMH-388) encompasses Denali sites identified by Frederick West, south and west of Donnelly Dome. Future archaeological studies in DTA will concentrate on completing survey of 100% of the land in DTA East, conducting DOEs on archaeological sites in high traffic areas, and exploring parts of DTA West that are opening up for expansion of military training activities.

Despite its incomplete nature, the archaeological record known from DTA represents all of the currently recognized prehistoric cultures of the Alaskan Interior. Of significance is the role played by sites located on DTA in the definition of the Denali Complex of the American Paleoarctic Tradition (Anderson 1970; West 1967, 1981). The oldest date for human habitation at DTA is roughly 10,100 years at site XBD-00167 (Higgs et al. 1999); however, undisturbed stratigraphic deposits 12,800-12,930 years old indicate the potential for intact archaeological occupations of this age. Sites yielding Northern Archaic side-notched points are common (Robertson et al. 2004, 2005; Raymond-Yakoubian and Robertson 2005). At DTA, site XMH-874 yielded an AMS date of 5720 +/- 50 BP from hearth charcoal associated with a microblade component (Robertson et al. 2008). A late prehistoric Athabaskan occupation is recognized at several sites (e.g. Andrews 1975, 1987; Cook 1989; Mishler 1986; Sheppard et al. 1991; Shinkwin 1979; Yarborough 1978). Of particular interest in this regard is a copper projectile point recently found in a buried context at DTA at site XBD-00272 (Robertson et al. 2009). Euro-American historic archaeological sites are also present (Gamza 1995; Phillips 1984).

The Gerstle River and Black Rapids Training Areas (GRTA and BRTA), also managed by FWA, have been infrequently utilized for training activities, and very few surveys or identification of archaeological sites have occurred in these areas. CEMML archaeologists surveyed two small portions of GRTA in 2011. One prehistoric site (XMH-1359) is previously known from this training area. Two sites, which have not been evaluated for the NRHP, have been discovered in BRTA (XMH-317, 318). Future research is planned for GRTA where military activities are planned to take place in the next five years.

Description of Undertaking (36 CFR 800.11 (d) (1))

In order to facilitate realistic live ordnance delivery training for pilots, the Air Force has proposed to establish two target locations for inert ordnance dropping events outside of established impact areas in DTA West. Temporary targets (such as conex containers) would be placed at two locations with little to no ground disturbance (Figure 2).

Specifically under this proposal, the Air Force would establish:

- A new target area in northeast Donnelly Training Area (DTA) in Training Area (TA) 544 for new run-in headings, release points, and hazard zones from Joint Base Elmendorf-Richardson (JBER) to the south
- A new target area in southwest DTA in TA 533 for new run-in headings, release points, and hazard zones from Eielson AFB from the north.

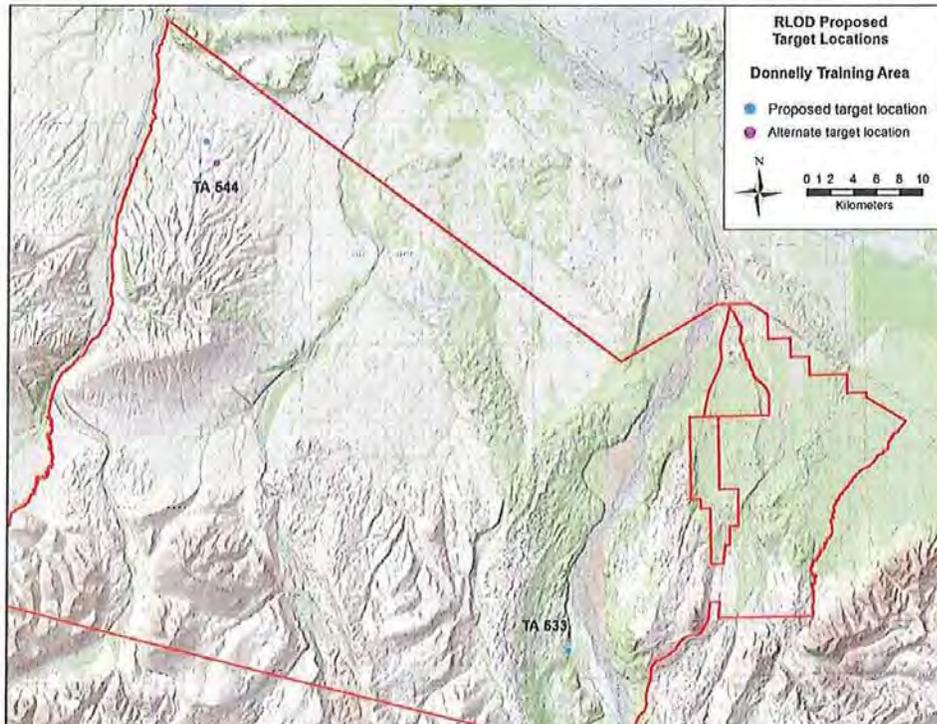


Figure 2. Proposed target locations in DTA West.

Steps Taken to Identify Historic Properties (36 CFR 800.11 (d) (2))

Archaeological surveys of the two proposed target locations were conducted by CEMML on 16 July 2012. Helicopter survey identified non-wetland localities in the vicinity of the target locations. The proposed target area, 64°09'23.39"N 146°39'01.73"W, in TA544 had wetland and black spruce (Figure 3). The closest non-wetland locality to this site, 64°08'27.71", 146°37'49.64"W, is represented by the purple dot in Figure 2. This preferred location was a spruce covered knoll above the wetland areas (Figure 4). Pedestrian surface survey covered a 50 m diameter area of potential effect (APE) around the coordinate location. Two shovel tests were excavated. No cultural material was discovered.

The proposed target location in TA 533, 63°45'31.35"N 146°01'00.72", is a high river terrace not inundated by wetland vegetation (Figure 5). A pedestrian surface survey covered a 50 m diameter APE around this coordinate. Two shovel tests were excavated in a birch and alder-treed area (Figure 6). No cultural material was discovered.



Figure 3. Proposed TA 544 target area.



Figure 4. Preferred TA 544 target area.



Figure 5. Proposed TA 533 target area.



Figure 6. Shovel test location in TA 533.

Only two archaeological sites are known from within 5 km of either of the target locations (Figure 7). Both are located in TA 533 near the southern target. XMH-00018 is an isolated artifact found on the north slope of a hill overlooking Jarvis Creek. It was originally discovered by Frederick Hadleigh West in 1967 and the site has not been reevaluated since that time. It is located across the Delta River from the proposed target location and would not be impacted by construction associated with this undertaking. XMH-00238 consists of a single chert flake found by Charles Holmes in 1979 on the top of a glacial moraine knoll west of the Delta River. Test pits in the vicinity of the flake encountered no other cultural material. Neither of the sites have had further evaluations for the NHRP, but they are both isolated finds and located far from the project areas.

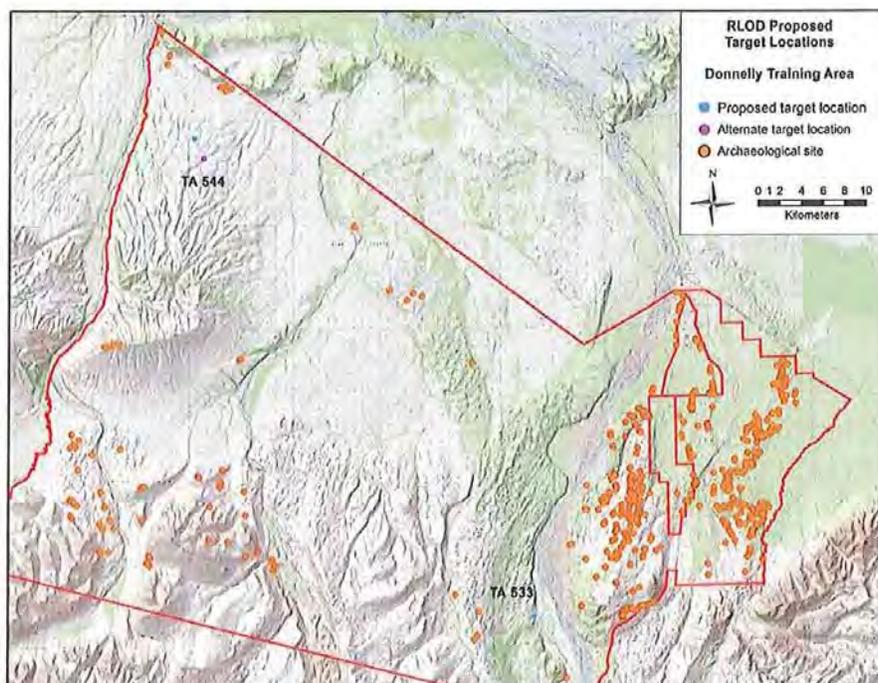


Figure 7. Location of archaeological sites in DTA in relation to proposed target areas.

Determination of Effect (36 CFR 800.11 (d) (3)) - No Historic Properties Affected

No archaeological sites were discovered during pedestrian survey and shovel testing in DTA West for RLOD target construction. Therefore, there is no reason to believe that this project warrants any further fieldwork or consideration under Section 106 of the NHPA (16 USC § 470, as amended 2000), and regulations codified in 36 CFR 800 (as amended 2004). The Air Force has determined a finding of **No Historic Properties Affected** for the RLOD target undertaking.

Copies of this letter will be sent to federally recognized tribes (Village of Dot Lake, Native Village of Eagle, Healy Lake Village, Nenana Native Association, Northway Village, Native Village of Tanacross, and Native Village of Tetlin). If you have any questions or require additional information, please contact Julie Esdale, USAG FWA Archaeologist at (907) 361-9405 or at julie.a.esdale.ctr@mail.mil.

Sincerely,

References

- Anderson, D.D. 1968. "A Stone Age Campsite at the Gateway to America." *Scientific American* 218(6): 24-33.
- Anderson, D.D. 1970. "Microblade Traditions in Northwestern Alaska." *Arctic Anthropology* 7(2): 2-16.
- Andrews, E.F. 1987. "Archaeological Evidence of European Contact: The Han Athabascans near Eagle, Alaska." *High Plains Applied Anthropologist* 7(2): 51-64.
- Andrews, E.F. 1977. *Report on the Cultural Resources of the Doyon Region, Central Alaska: Volumes I and II*. Fairbanks: Anthropology and Historic Preservation, Cooperative Park Studies Unit, University of Alaska Occasional Paper No. 5.
- Andrews, E.F. 1975. *Salcha: an Athabaskan Band of the Tanana River and its Culture*. M.A. Thesis, Fairbanks: Department of Anthropology, University of Alaska.
- Bacon, G.H. 1978. *Final Report on the Archeological Survey of the XM-1 Tank Range, Fort Greely, Alaska*. Fairbanks: Prepared for the U.S. Army Corps of Engineers, Alaska District, by Alaskaarctic.
- Bacon, G.H., and C.E. Holmes. 1979. *Archaeological Survey and Inventory of Cultural Resources at Fort Greely*. Fairbanks: Prepared by Alaskaarctic.
- Bever, M.R. 2001. "An Overview of Alaskan Late Pleistocene Archaeology: Historical Themes and Current Perspectives." *Journal of World Prehistory* 15(2): 125-191.
- Bever, M.R. 2001. "Stone Tool Technology and the Mesa Complex: Developing a Framework of Alaska Paleoindian Prehistory." *Arctic Anthropology* 38(2): 98-118.
- Bever, M.R. 2006. "Too Little, Too Late? The Radiocarbon Chronology of Alaska and the Peopling of the New World." *American Antiquity* 71(4): 595-620.
- Bigelow, N.H., and R.W.M. Powers. 2001. "Climate, Vegetation, and Archaeology 14,000-9000 Cal Yr B.P. in Central Alaska." *Arctic Anthropology* 38(2): 171-195.
- Bradley, Z., J. Cook, and A. Frizzera. 1973. *Preliminary Survey Report, Blair Lakes Alaska*. Fairbanks: University of Alaska Fairbanks, Anthropology Department.
- Buchanan, B., and M. Collard. 2008. "Phenetics, Cladistics, and the Search for the Alaskan Ancestors of the Paleoindians: a Reassessment of Relationships Among the Clovis, Nenana, and Denali Archaeological Complexes." *Journal of Archaeological Science* 35: 1683-1694.

- Clark, D.W. 2001. "Microblade-Culture Systematics in the Far Interior Northwest." *Arctic Anthropology* 38(2): 64-80.
- Clark, D.W. 1981. "Prehistory of the Western Subarctic." In *The Handbook of North American Indian: Subarctic, Volume 6*, by J. Helm, 120. Washington, D.C.: Smithsonian Institution.
- Clark, D.W. 1992. "The Archaic in the Extreme Northwest of North America." *Revista de Arqueologia Americana* 5: 71-99.
- Cook, J.P. 1975. "Archaeology of Interior Alaska." *Western Canadian Journal of Anthropology* 3: 125-133.
- Cook, J.P. 1996. "Healy Lake." In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by F.H. West, 323-327. Chicago: University of Chicago Press.
- Cook, J.P. 1989. "Historic Archeology and Ethnohistory at Healy Lake, Alaska." *Arctic* 42(3): 109-118.
- Cook, J.P. 1979. *Site XBD-094: Aircraft Assault Strip Fort Wainwright, Alaska*. Fairbanks: Final Report to U.S. Army Corps of Engineers.
- Cook, J.P. 1969. *The Early Prehistory of Healy Lake, Alaska*. Ph.D. Dissertation, Madison: Department of Anthropology, University of Wisconsin.
- Cook, J.P., and T.E. and Gillespie. 1986. "Notched Points and Microblades." 13th Annual Meeting of the Alaska Anthropological Association. Fairbanks: Alaska.
- Dixon, E.J. 1985. "Cultural Chronology of Central Interior Alaska." *Arctic Anthropology* 22: 47-66.
- Dixon, E.J., G.S. Smith, and D. Plaskett. 1980. *Archeological Survey and Inventory of Cultural Resources, Fort Wainwright, Alaska*. Prepared for the U.S. Army Corps of Engineers, Alaska District.
- Dumond, D.E. 2001. "The Archaeology of Eastern Beringia: Some Contrasts and Connections." *Arctic Anthropology* 38(2): 196-2005.
- Esdale, J.A. 2008. "A Current Synthesis of the Northern Archaic." *Arctic Anthropology* 45(2): 3-38.
- Esdale, J.A., and A.C. Robertson. 2007. *Final Report: Archaeological Data Recovery for Sites XMHI-00284 and XMHI-00881, 33-Mile Loop Road Gravel Source Mitigation*.

Donnelly Training Area, Fort Wainwright, Alaska 2007. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Eshleman, J.A., R.S. Malhi, and D.G. Smith. 2003. "Mitochondrial DNA Studies of Native Americans: Conceptions and Misconceptions of the Population Prehistory of the Americas." *Evolutionary Anthropology* 12: 7-18.

Espenshade, C.T. 2010. *Archaeological Investigations, Donnelly Training Area near Delta Junction, Alaska.* Greensboro: Prepared by New South Associates. Technical Report 1922.

Gaines, E.P. 2009. *Report: Archaeological Survey and Evaluation Fort Wainwright and Fort Richardson, Alaska 2008.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Gaines, E.P., H. Hardy, and H. Brown. 2010. *Final Report: Determination of National Register Eligibility for Eleven Archaeological Sites at Fort Greely, Alaska 2010.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Gaines, E.P., K.S. Yeske, and S.J. McGowan. 2010. *Annual Report: Cultural Resources Survey and Evaluation, Fort Wainwright, Alaska 2009.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Gamza, T. 1995. *Excavation and Evaluation of Sullivan's Roadhouse (XBD-061), Fort Greely, Alaska 1994.* Anchorage: Final Report, Prepared for the Office of History and Archaeology, Division of Parks and Recreation, Alaska Department of Natural Resources.

Goebel, T., W.R. Powers, N.H. Bigelow, and A.S. Higgs. 1996. "Walker Road." In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by Frederick H. West, 356-363. Chicago: University of Chicago Press.

Hedman, W., A. Robertson, N. Fichter, and K. Anderson. 2003. *Report: Archaeological Survey and Evaluation, Fort Richardson and Fort Wainwright, 2002.* Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Higgs, A.S., B.A. Potter, P.M. Bowers, and O.K. Mason. 1999. *Cultural Resource Survey Report of the Yukon Training Area and Fort Greely Army Lands Withdrawal, Alaska. Vol. 2.* Fairbanks: Prepared by Northern Land Use Research, Inc.

Holmes, C.E. 1979. *Report on Archeological Reconnaissance: Yukon Training Command Withdrawal Area. Ft. Wainwright.* Report prepared for the U.S. Army Corps of Engineers under Contract DACA85-79-M-0001.

- Holmes, C.E. 1979. *Archaeological Reconnaissance Report for Fort Wainwright, Fort Greely, and Fort Richardson Withdrawal Lands, Alaska*. Fairbanks: Prepared for the 172nd Infantry Brigade.
- Holmes, C.E. 1998. "New Data Pertaining to Swan Point, the Oldest Micoblade Site Known in Alaska." *Current Research in the Pleistocene* 15: 21-22.
- Holmes, C.E. 2007. "The East Beringian Tradition and the Transitional Period: New Data from Swan Point." 34th Annual Meeting of the Alaskan Anthropological Association. Fairbanks.
- Holmes, C.E. 1996. "Broken Mammoth." In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by F.H. West, 312-318. Chicago: University of Chicago Press.
- Holmes, C.E. 2001. "Tanana River Valley Archaeology Circa 14,000 to 9,000 B.P." *Arctic Anthropology* 38(2): 154-170.
- Holmes, C.E., and J. Anderson. 1986. *Archaeology and Paleocology of the Delta River Area, Interior Alaska*. Anchorage: National Science Foundation Project Summary Manuscript on file at the State Historic Preservation Office.
- Holmes, C.E., and J.P. Cook. 1999. Tanana Valley Archaeology Circa 12,000 to 8,500 Yrs. B.P. Paper presented at the 64th Annual Meeting of the Society for American Archaeology. Chicago.
- Holmes, C.E., R. VanderHoek, and T.E. Dilley. 1996. "Swan Point." In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by F.H. West, 319-323. Chicago: University of Chicago Press.
- Holmes, G.W. 1965. *Geologic Reconnaissance Along the Alaska Highway, Delta River to Tok Junction, Alaska. Bulletin B 1181-H*. Anchorage: U.S. Geological Survey.
- Johnson, W.C., and S.R. Bozarth. 2008. *Geoarchaeology and Environmental Reconstruction at XMH-874, Fort Wainwright Donnelly Training Area*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.
- Lively, R.A. 1996. "Chugwater." In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by F.H. West, 308-311. Chicago: University of Chicago Press.
- Marshall, T. 2007. *Archaeological Survey and Evaluation: Fort Wainwright, 2006*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

- McFadyen Clark, A. 1981. "Koyukon." In *Handbook of North American Indians, Volume 6: Subarctic*, by J. Helm, 582-601. Washington, D.C.: Smithsonian Institution.
- McFadyen Clark, A. 1996. *Who Lived in This House? A Study of Koyukuk River Semi Subterranean Houses*. Hull: Mercury Series Archaeological Survey of Canada Paper 153. Canadian Museum of Civilization.
- McKenna, R.A. 1981. "Tanana." In *Handbook of North American Indians, Volume 6: Subarctic*, by J. Helm. Washington, D.C.: Smithsonian Institution.
- Meltzer, D.J. 2001. "Late Pleistocene Cultural and Technological Diversity of Beringia: A View from Down Under." *Arctic Anthropology* 38(2): 206-213.
- Mishler, C.W. 1986. *Born With the River: An Ethnographic History of Alaska's Goodpaster and Big Delta Indians*. Fairbanks: Alaska Department of Natural Resources, Division of Geological and Geophysical Surveys Reports, Public Data File 68-14.
- Muhs, D.R. and J.R. Budahn. 2006. Geochemical evidence for the origin of late Quaternary loess in central Alaska. *Canadian Journal of Earth Science* 43: 323-337.
- Odess, D. 2002. *Preliminary Report of Archaeological Investigations on Military Lands in the Vicinity of Donnelly Dome, Alaska, Under TCC Contract #DAPC49=01-D-0004*. Fairbanks: Report on file with the Tanana Chiefs Conference.
- Odess, D., and J.T. Rasic. 2007. "Toolkit Composition and Assemblage Variability: The Implications of Nogahabara I, Northern Alaska." *American Antiquity* 72(4): 691-717.
- Pearson, G.A., and W.R. Powers. 2001. "The Campus Site Re-Excavation: New Efforts to Unravel Its Ancient and Recent Past." *Arctic Anthropology* 38(1): 100-119.
- Phillips, W.T., Sr. 1984. *Roadhouses of the Richardson Highway, the First Quarter Century: 1898-1923*. Anchorage: State of Alaska, Alaska Historical Commission.
- Potter, B.A. 2008. "Exploratory Models of Intersite Variability in Mid to Late Holocene Central Alaska." *Arctic* 61(4): 407-425.
- Potter, B.A. 2004. "Modeling Intersite Variability in Interior Alaska: Overcoming Conceptual Ambiguity Through Pattern Recognition." 60th Annual Meeting of the Society for American Archaeology. Montreal.
- Potter, B.A. 2007. "Models of Faunal Processing and Economy in Early Holocene Interior Alaska." *Environmental Archaeology* 12(1): 3-23.
- Potter, B.A. 2008. "Radiocarbon Chronology of Central Alaska: Technological Continuity and Economic Change." *Radiocarbon* 50(2): 181-204.

- Potter, B.A. "Recent Investigations at the Gerstle River Site, a Multicomponent Site in Central Alaska." *Current Research in the Pleistocene* 18 2001: 52-54.
- Potter, B.A. *Site Location Model and Survey Strategy for Cultural Resources in the Alaska Railroad Northern Rail Extension Project Area*. Fairbanks: Report submitted by Northern Land Use Research, Inc. and ICF Consulting Services, LLC. 2005.
- Potter, B.A., J.D. Irish, J.D. Reuther, C.I. Gelvin-Reymiller, and V.T. Holliday. 2011. "A Terminal Pleistocene Child Cremation and Residential Structure from Eastern Beringia." *Science* 331: 1058-1062.
- Potter, B.A., J.D. Reuther, P.M. Bowers, and C. Gelvin-Reymiller. 2008. "Little Delta Dune Site: A Late-Pleistocene Multicomponent Site in Central Alaska." *Current Research in the Pleistocene* 25: 132-135.
- Potter, B.A., J.D. Reuther, P.M. Bowers, and C. Gelvin-Reymiller. 2007. *Results of the 2007 Cultural Resource Survey of Proposed Alaska Railroad Northern Rail Extension Routes, Alaska*. Fairbanks: Report submitted by Northern Land Use Research, Inc.
- Potter, B.A., P.M. Bowers, J.D. Reuther, and O.K. Mason. 2007. "Holocene Assemblage Variability in the Tanana Basin: NLUR Archaeological Research, 1994-2004." *Alaska Journal of Anthropology* 5(1): 23-42.
- Potter, B.A., S.C. Gerlach, A.S. Higgs, and P.M. Bowers. 2000. *Final Cultural Resources Survey: Fort Greeley, Yukon Training Area (Fort Wainwright), Alaska for the National Missile Defense Program, for USAR Space and Missile Defense Command*. Fairbanks: Report prepared by Northern Land Use Research, Inc.
- Powers, W.R., and J.F. Hoffecker. 1989. "Late Pleistocene Settlement in the Nenana Valley, Central Alaska." *American Antiquity* 54(2): 263-287.
- Price, K. 2002. *Homesteads on Fort Wainwright, Alaska*. Fort Collins: Center for Environmental Management of Military Lands, Colorado State University.
- Rabich, J.C., and D.R. Reger. 1977. *Archaeological Excavations at the Gerstle River Quarry Site. In, Archaeological Survey Projects 1977*. Anchorage: OHA Miscellaneous Publications 18, Office of History and Archaeology.
- Raymond-Yakoubian, J., and A. Robertson. 2005. *Annual Report: Archaeological Survey and Evaluation, Fort Richardson and Fort Wainwright, 2004*. Annual Report, Fort Collins: Center for Environmental Management of Military Lands (CEMML).
- Raymond-Yakoubian, J., and A. Robertson. 2006. *Annual Report: Archaeological Survey and Evaluation, Fort Richardson and Fort Wainwright, 2005*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Ream, B.A. 1986. *Old Fish Camp: an Ethnohistoric and Archeological Analysis of a Lower Yukon Koyukon Athapaskan Winter Village, Khotol River, Alaska*. M.A. Thesis, Department of Anthropology, Western Washington University.

Reynolds, G.L. 1983. *Archaeological Reconnaissance of Four Borrow Pits, Fort Wainwright, Alaska*. Anchorage: Submitted to the U.S. Army Corps of Engineers.

Reynolds, G.L. 1998. *Archaeological Site Report Fort Greely Cantonment Area*. Anchorage: Manuscript on file at the Office of History and Archaeology.

Reynolds, G.L. 1986. *Inventory of Cultural Resources and Overview, Phase I*. Prepared for the 172nd Infantry Brigade by Georgeanne Reynolds, Fairbanks: Alaska Heritage Group, Inc.

Reynolds, G.L. 1985. *Survey of Construction Projects, Fort Wainwright Cantonment*. Anchorage: Manuscript on file at the Office of History and Archaeology.

Robertson, A.C., J. Esdale, W.C. Johnson, S.R. Bozarth, S. McGowan, M. Proue, C.K. Paraso, S. Shirar, and P. Gilbert. 2009. *Final Report: 2006-2007 Archaeological Data Recovery for Site XMH-00874 Battle Area Complex (BAX) Mitigation, Donnelly Training Area, Fort Wainwright, Alaska*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Robertson, A.C., M. Proue, C.K. Paraso, S. Shirar, and P. Gilbert. 2008. *Archaeological Data Recovery for Site XMH-00874, Battle Area Complex (BAX) Mitigation, Donnelly Training Area, Fort Wainwright, Alaska, 2007*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Robertson, A.C., M. Proue, P. Hall, S. Shirar, and C.K. Paraso. 2007. *Archaeological Survey, Evaluation, and Mitigation: Donnelly Training Area, Fort Wainwright, Alaska 2006*. Fort Collins: Prepared by the Center for Environmental Management of Military Lands.

Robertson, A.C., N. Fichter, and K. Anderson. 2004. *Annual Report: Archaeological Survey and Evaluation, Fort Richardson and Fort Wainwright 2003*. Ft. Collins: Prepared by the Center for Environmental Management of Military Lands.

Robertson, A.C., S.J. Meitl, D. White, P. Gilbert, and C. Ciancibelli. 2009. *Archaeological Survey and Evaluation: Donnelly Training Area, Fort Wainwright*. Ft. Collins: Prepared by the Center for Environmental Management of Military Lands.

Sheppard, W., A.F. Seffian, D.P. Staley, and N.H. Bigelow. 1991. *Late Holocene Occupations at the Terrace Site, Tok, Alaska*. Final Report, Fairbanks: Prepared for U.S. Air Force Over-the-Horizon Backscatter Radar Program.

- Shinkwin, A.D. 1979. *Dakah De'nin's Village and the Dixthada Site: a Contribution to Northern Alaskan Prehistory*. National Museum of Man Mercury Series NO. 91.
- Staley, D.P. 1993. *A Phase 1 Cultural Resources Survey of 19 Locations for the Proposed Yukon Measurement and Debriefing System in Interior Alaska*. Albuquerque: Mariah and Associates.
- Steele, J.L. 1982. *Archaeological Assessment of Proposed Range Control Headquarters Building, Fort Wainwright, Alaska*. Anchorage: Alaska District, U.S. Army Corps of Engineers.
- Steele, J.L. 1980. *Archaeological Assessment of Squad Assault Range, Powerline Extension, and M-16 Record Fire Range, Fort Greely, Alaska*. Anchorage: Alaska District, U.S. Army Corps of Engineers.
- Steele, J.L. 1982. *Cultural Resource Assessment for a Quarry Site at Donnelly Dome, Fort Greely, Alaska*. Anchorage: Alaska District, U.S. Army Corps of Engineers.
- Steele, J.L. 1983. *Cultural Resource Assessment of a Powerline Extension: Fort Greely, Alaska*. Anchorage: Alaska District, U.S. Army Corps of Engineers.
- Steele, J.L. 1983. *Cultural Resources Assessment of Proposed Borrow Area, Fort Wainwright, Alaska*. Anchorage: Report on file at the Office of History and Archaeology.
- Steele, J.L. 1980. *Fort Greely Bison Trail Archaeological Survey, Fort Greely, Alaska*. Anchorage: Alaska District, U.S. Army Corps of Engineers.
- VanStone, J.W., and I. Goddard. 1981. "Territorial Groups of West-Central Alaska Before 1898." In *Handbook of North American Indians, Volume 6: Subarctic*, by J. Helm, 556-561. Washington D.C.: Smithsonian Institution.
- West, F.H. 1975. "Dating the Denali Complex." *Arctic Anthropology* 12: 76-81.
- West, F.H. 1996. "Donnelly Ridge." In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by F.H. West, 302-307. Chicago: University of Chicago Press.
- West, F.H. 1996. "Other Sites in the Tangle Lakes." In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by F.H. West, 403-408. Chicago: University of Chicago Press.
- West, F.H.. 1981. *The Archaeology of Beringia*. New York: Columbia Press.
- West, F.H. 1967. "The Donnelly Ridge Site and the Definition of an Early Core and Blade Complex in Central Alaska." *American Antiquity* 32(2): 360-382.

Yarborough, L.F. 1978. *Chena River Lakes Project Cultural Resource Investigation*. Final Report, Fairbanks: Prepared for the U.S. Army Corps of Engineers, Alaska District.

Yesner, D.R. 2001. "Human Dispersal into Interior Alaska: Antecedent Conditions, Mode of Colonization, and Adaptations." *Quaternary Science Reviews*: 315-327.

Yesner, D.R., and G.A. Pearson. 2002. "Microblades and Migrations: Ethnic and Economic Models in the peopling of the Americas." In *Thinking Small: Global Perspectives on Microlithization*, by R.G. Elston and S.L. Kuhn, 133-161. Arlington: Archaeological Papers of the American Anthropological Association Number 12.

Yesner, D.R., C.E. Holmes, and G. Pearson. 1999. "Recent Excavations at the Broken Mammoth Site, Big Delta, Alaska: Reflections on Activity Patterning and Artifact Assemblages." 64th Annual Meeting of the Society of American Archaeology. Chicago.

West, F.H. *The Archaeology of Beringia*. New York: Columbia Press, 1981.

West, F.H. Donnelly Ridge. In *American Beginnings: The Prehistory and Palaeoecology of Beringia*, by Frederick H. West, p. 302-307. Chicago: University of Chicago Press, 1996.

Yarborough, L.F. *Chena River Lakes Project Cultural Resource Investigation*. Final Report, Fairbanks: Prepared for the U.S. Army Corps of Engineers, Alaska District, 1978.

Yesner, D.R., and G.A. Pearson. Microblades and Migrations: Ethnic and Economic Models in the peopling of the Americas. In *Thinking Small: Global Perspectives on Microlithization*, by R.G. Elston and S.L. Kuhn, 133-161. Arlington: Archaeological Papers of the American Anthropological Association Number 12, 2002.

Yesner, D.R., C.E. Holmes, and G. Pearson. Recent Excavations at the Broken Mammoth Site, Big Delta, Alaska: Reflections on Activity Patterning and Artifact Assemblages. Paper presented at the *64th Annual Meeting of the Society of American Archaeology*. Chicago, 1999.

Yesner, D.R. Human Dispersal into Interior Alaska: Antecedent Conditions, Mode of Colonization, and Adaptations. *Quaternary Science Reviews*, 2001: 315-327.

10.5.2012

3130-1R AIR FORCE



**DEPARTMENT OF THE AIR FORCE
PACIFIC AIR FORCES**

OCT 03 2012

Colonel Patrick O. Moylan
Vice Commander, Eleventh Air Force
9480 Pease Ave Ste 101
Joint Base Elmendorf-Richardson Alaska 99506-2101

RECEIVED
OCT 04 2012

OHM

Ms. Judith Bittner
Alaska State Historic Preservation Officer
Office of History and Archaeology
Department of Natural Resources
550 West 7th Avenue, Suite 1310
Anchorage Alaska 99501

No Historic Properties Affected
Alaska State Historic Preservation Officer
Date: 10.5.2012
File No. 3130-1R AIR FORCE
OHM

Dear Ms. Bittner

The Alaskan Command (ALCOM) requests your concurrence with the finding of No Historic Properties Affected for the *Environmental Impact Statement for the Modernization and Enhancement of Ranges, Airspace, and Training Areas in the Joint Pacific Alaska Range Complex in Alaska* Realistic Live Ordnance Delivery (RLOD) proposed action.

Based on the nature of the proposed action, no historic properties will be affected within the Areas of Potential Effect for the Realistic Live Ordnance Delivery proposal. Pursuant to Section 106 of the National Historic Preservation Act of 1966 (16 USC § 470), and according to the regulations governing Section 106, 36 CFR Part 800 "Protection of Historic Properties," a determination is made of No Historic Properties Affected.

Survey results are attached to support a finding of No Historic Properties Affected. The U.S. Army Garrison Fort Wainwright, Alaska will be conducting any additional Section 106 consultation necessary for the definitive projects affecting Army-managed lands.

All correspondence associated with this consultation will be included in the Administrative Record of the EIS. If you have any questions regarding the proposals or regarding this request, please feel free to contact Mr. Jamie Spell at (907) 552-1695, LTC Russell Price at (907) 552-3683, or Ms. Erin Marynak at (907) 552-3791.

Sincerely


PATRICK O. MOYLAN
Colonel, USAF
Vice Commander

Attachment:
Realistic Live Ordnance Delivery Proposal Survey Results

L.5 OTHER FEDERAL AGENCIES

L.5.1 Department of Interior, Bureau of Land Management



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Alaska State Office
222 West Seventh Avenue, #13
Anchorage, Alaska 99513-7504
<http://www.blm.gov/ak>



In Reply Refer To:
1610 (930)

FEB 10 2011

Lieutenant General Dana T. Atkins, USAF
Commander, Alaskan Command
9480 Pease Avenue, Suite 110
Joint Base Elmendorf-Richardson, AK 99506-2101

Dear General Atkins:

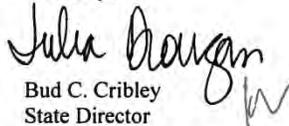
On December 10, 2010, you sent notice of your intent to prepare an Environmental Impact Statement evaluating proposed modernizing and enhancing of current military ground and air training assets in Alaska. Based on the information in your document, "Joint Pacific Alaska Range Complex: Description of Proposed Action and Alternatives" dated October 2010, we decline your invitation to be a Cooperating Agency. The Bureau of Land Management (BLM) does not have a permitting, authorizing or financing role for any of the actions proposed in the alternatives presented during scoping. If the actions in the alternatives are modified where the BLM would have a permitting, authorizing or financing role, we would like to reconsider your cooperating agency invitation.

Your proposed expansion of Military Operation Areas (Fox and Paxson) does cover areas within the BLM-Glenallen Field Office. In particular, the Delta Range Special Recreation Management Area, and the Delta and Gulkana Wild and Scenic River corridors.

Under agreement with the U.S. Army, the BLM-Alaska Fire Service does provide wildland fire and vegetative management services within the proposed area. We do ask that you continue to honor those current notification and coordination protocols and that any existing mitigation measures will remain.

The BLM-Alaska Fire Service and Glenallen Field Office will provide you with more detailed comments on-line, as requested in your scoping letter. If you have questions regarding this response, please contact Callie Webber, Acting Supervisory Planning and Environmental Coordinator, at 907-271-3167.

Sincerely,


Bud C. Cribley
State Director

cc:
Deputy State Director, Division of Resources (AK930)
Anchorage District Manager (AK000)
Glenallen Field Manager (AK020)
Fire Management Officer, Alaska Fire Service (AK9F0)



DEPARTMENT OF THE AIR FORCE
WASHINGTON DC

OFFICE OF THE ASSISTANT SECRETARY

FEB 16 2011

SAF/IEI
1665 Air Force Pentagon
Washington, DC 20330-1665

Mr. Bud C. Cribley
State Director, U.S. Bureau of Land Management
Alaska State Office
222 West 7th Ave., #13
Anchorage, Alaska 99513-7504

Dear Mr. Cribley:

The Air Force and the Army jointly request your formal participation in the preparation of an Environmental Impact Statement (EIS) for the Joint Pacific Alaska Range Complex (JPARC) as prescribed in the President's Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) Regulations, 40 CFR § 1501.6 *Cooperating Agencies*.

As the lead agencies for the JPARC EIS, the Air Force and the Army request you participate in various portions of the EIS development as may be required. Specifically the Air Force and the Army ask for your support as a Cooperating Agency by:

- a. Participating in the scoping process
- b. Assuming responsibility, upon request by the Army and Air Force, for developing information and preparing analyses on issues for which you have special expertise
- c. Making staff available for interdisciplinary review

To avoid unnecessary delays in the NEPA process, the Air Force and the Army will provide appropriate information and related materials in a timely fashion to enable your agency to complete its review and respond promptly. Should you or your staff have any questions regarding this letter, our point of contact is Mr. Jamie Spell, Alaskan Command, Staff Engineer, (907) 552-1695.

Sincerely,


KATHLEEN I. FERGUSON, P.E.
Deputy Assistant Secretary of the Air Force
(Installations)

cc:
SAF/IEE
SAF/GCN
HQ USAF/A7C
HQ USAF/A3O
HQ PACAF/A7PI
ALCOM/J42



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Glennallen Field Office
P.O. Box 147
Glennallen, Alaska 99588
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In Reply Refer To:
1793, 2330 (AKA020)

MAR - 3 2013

ALCOM Public Affairs
9480 Pease Avenue, Suite 120
JBER, Alaska 99506

RE: JPARC EIS Scoping

Dear Planner,

The Bureau of Land Management Glennallen Field Office (BLM-GFO) has land and resource management responsibilities for federally managed lands that are encompassed by the Proposed Fox 3, 4, 5, and 6 MOAs and the Proposed Paxson MOA. In review of past documentation of the Fox 3 and proposed Fox MOA areas and plans, and of current proposals as well as our office's recreation and subsistence use data, management plans and objectives and current resource and land management issues and objectives, our office would like to make the following comments during the Joint Pacific Alaska Range Complex Environmental Impact Statement (EIS) Scoping Period:

BLM-GFO Planning Documents:

Enclosed you will find BLM-GFO planning documents that have been completed or that are underway and share some of the same planning areas as this current JPARC EIS. Each of these BLM plans has had considerable public involvement and will be helpful to you in recognizing sensitive areas for recreation, wildlife, and subsistence. The East Alaska Proposed Resource Management Plan and Final EIS completed in 2006 and the subsequent East Alaska Resource Management Plan Record of Decision (ROD) and Approved Plan completed in 2007 guide BLM-GFO management actions and objectives. The BLM-GFO would especially like to point out the following maps in the East Alaska ROD which have overlapping areas to the Fox 3, 4, 5, 6, and Paxson Proposed MOAs: Map 3 on page 65 identifies moose habitat; Map 9 on page 71 shows the extent of the Delta River Special Recreation Management Area; Map 10 on page 72 shows the extent of the Gulkana River Special Recreation Management Area (SRMA); Map 13 on page 75 shows the extent of the Delta Range SRMA; Map 15 on page 77 shows designated trails within the Delta River SRMA; Map 16 on page 78 shows designated trails within the

Gulkana River SRMA; And, Map 17 documents the Visual Resource Management Classes for the entire BLM Glennallen Field Office Management Area. The BLM-GFO would also like to point out the following maps in the East Alaska Resource Management Plan Final EIS that provide important scoping background for the JPARC plan within the BLM-GFO management boundary: Map 27 on page 189 shows GPSed Trails, ANCSA 17b Easements, and State-recognized RS 2477 travel routes which have documented public use; Map 28 on page 197 shows State of Alaska Game Management Units; Map 29 on page 205 demonstrates Recreation Opportunity Spectrums within the East Alaska planning area which demonstrates the types of recreation experiences visitors expect to have for different management areas; Map 32 on page 239 shows Black and Grizzly Bear habitat; Map 33 on page 241 shows the Bison calving area; Map 34 on page 243 shows Caribou summer and winter habitat and calving areas; Map 35 on page 245 shows Dall Sheep habitat; Map 36 on page 247 shows Mountain Goat habitat; Map 37 on page 249 shows Moose habitat; Map 38 on page 255 shows Bald Eagle breeding and nesting habitat; Map 41 on page 269 shows Trumpeter Swan nesting sites; and Map 42 on page 275 shows anadromous rivers and streams; These maps and the entire East Alaska RMP Record of Decision provides the background and general basis for the BLM Glennallen Field Office's scoping comments.

Wild and Scenic Rivers:

Enclosed you will also find a copy of the Gulkana National Wild River Record of Decision completed in 2006 and the latest draft of the Delta Wild and Scenic River Resource Management Plan. These documents further guide management actions and objectives for the BLM Glennallen Field Office within the nationally recognized wild and scenic river corridors and provide additional background within the Proposed Fox 3, 4, 5, 6 and Paxson MOAs.

The proposals to expand the FOX 3 MOA and create the new Paxson MOA would likely have a negative effect on opportunities for solitude on both the Delta and Gulkana Wild and Scenic Rivers (WSR). The BLM-GFO rivers program has documented numerous encounters with military overflights over the years. These encounters have included low level overflights on the Upper Tangles and Delta River; sometimes these encounters have included shockwaves and deafening noise that is associated with aircraft breaking the sound barrier. See attached reports labeled "Over flights 2007" and "Over flights 2000." Low level military over flights have been an issue over the river corridors for a number of years. The BLM-GFO has consulted with the United States Air Force to discuss this issue. Upon concerns raised by the BLM-GFO, the existing Fox 3 MOA boundaries were modified in 1997 to avoid the Delta WSR corridor, currently being situated on the western side of the river.

At this point in time, the existing situation is as follows:

"In 1997, the Federal Aviation Administration and United States Air Force, after conducting an Environmental Impact Statement, issued a Record of Decision that, in part, modified the boundaries of the Fox Military Operations Area (MOA) to exclude the DWSR corridor. A MOA is a Special Use Airspace designated for non-hazardous military flight activities such as air combat tactics, transition, formation training, and aerobatics. The new boundaries of the FOX MOA were situated on the western boundary of the Delta River, and include portions of the Denali Highway to the west of the river corridor. The average daily military aircraft operations in the Fox MOA is estimated to be 16 aircraft operations per day in a routine flying day and up to 80 aircraft operations per day during specialized training."

With the proposed changes to the FOX 3 MOA and the extension of the Proposed Paxson MOA, the entire Delta and Gulkana WSR corridors would be open to military overflight maneuvers. It appears through reading the JPARC scoping notices and planning newsletter dated 12.03.10 that the flight ceiling would be lowered to 500 AGL, from 5000 AGL, and that the number of sorties would increase. A lower flight ceiling level and additional sorties per day would affect opportunities for solitude. Visitor use on both rivers occurs primarily during the summer months (June-October). Outside of these months, very few users would be affected. Total summer visitors for the Delta River and Upper Tangles are approximately 1,426 visitors. Total summer visitors for the Gulkana River are approximately 3,606 visitors.

The BLM-GFO would like to work with JPARC to find mitigation measures to address this issue. Possible mitigation measures might include a request to reduce the number of sorties from June-October, not reducing the flight ceiling to 500 feet, creating a buffer zone that extends 5 miles around both river corridors, and discussions to reduce sound barrier disruptions in the vicinity of the river corridors.

BLM-GFO Campgrounds:

The Proposed Fox 3 and Paxson MOA expansion is not a compatible use with our nationally designated recreation areas and federal campgrounds. These proposals would have an adverse effect on our visiting public during high visitation months. The current Fox 3 MOA was arrived at through negotiation and compromise to provide ALCOM with the middle of the Denali Highway. Current overflights at 5,000 AGL cause a disturbance to the recreating public. The BLM-GFO is concerned that overflights conducted at 500 AGL with any type of aircraft, especially military high speed aircraft, would not be tolerated by the recreating public and those trying to view and photograph wildlife. The expansion area includes some very populated roads within our management area that travel through or are in the vicinity of the Alaska Range. The Denali and Richardson Highways connect two of the largest and most visited National Parks in Alaska. The Denali Highway is a destination for visitors who want to experience a glimpse of the Last Frontier. Visitors come to the Denali Highway to camp, fish, view wildlife and birds, hike, bicycle, canoe, and explore Alaska's geologic and archaeological and historic past. BLM-GFO managed campgrounds and facilities are dispersed across the Denali Highway and down the Richardson Highway. Travelers seeking the solitude of the Last Frontier do not appreciate experiencing military maneuvers taking place along these routes, especially when there is a vast amount of remote lands within the State of Alaska that could be alternately utilized. The BLM-GFO would like ALCOLM to consider alternative areas in Alaska for these maneuvers that would be more appropriate and isolated from the recreating public and federally managed recreation areas.

Trails and Travel Management:

The BLM-GFO documented 10,039 trail users in Fiscal Year 2010 within the current Fox 3 and proposed MOA areas. Dispersed recreation totals add an additional 28,500 visitors within this area. Within the proposed Paxson MOA area during the same time frame, 10,035 trail users were counted and dispersed recreation counts added an additional 6,448 visitors within this area. For both of these areas, generally the most concentrated use occurs in conjunction with hunting seasons (August and September). Use does occur year round however, generally decreasing in

intensity the further away you travel from the road system. The exception is some areas within the proposed Paxson MOA which has significant snowmachine use and non-motorized winter activities within the Delta Range Special Recreation Management Area.

The duration and frequency of flights would obviously affect experiences as would flight floor levels. Without knowing how many flights may take place, it is difficult for the BLM-GFO to analyze the potential effects. Essentially a couple of planes per day or every few days would have far less effects than aerial operations taking place on a daily basis or a large group of planes in a single formation. The Recreation Opportunity Spectrum (ROS) classifications were determined during the BLM-GFO East Alaska Resource Management Plan process which was completed in 2007. These ROS classifications guide the BLM-GFO recreation management objectives for all lands managed by this office. A review of these classifications may help to determine how to meet the JPARC's needs while protecting user experiences and management objectives.

Wildlife and Subsistence:

Wildlife resources in conjunction with subsistence uses are extensively utilized within the proposed area. A significant expansion to the south and east of the current Fox 3 MOA boundary, to include the proposed Paxson MOA, will likely affect wildlife and subsistence activities at certain times of the year. From January till March, the Nelchina Caribou Herd is scattered through much of the eastern part of the proposed Fox 3 MOA and within the proposed Paxson MOA Addition, with an active federal subsistence hunt that ends March 30 of each year along the Delta and Gulkana Wild and Scenic River corridors. Wintering moose generally congregate at higher elevations and, relevant to subsistence uses and JPARC's proposed MOAs, within the Alphabet Hills system. Human disturbance increases stress in overwintering moose during an already-stressful time of the year. Snow conditions may also contribute to stress levels as moose move around and search for forage in the snow. From April till June, migratory birds arrive in the proposed area to mate and nest. Subsistence users utilize the Tangle Lakes and nearby lakes for the spring migratory bird subsistence hunt. Caribou calves are born mid-May within the Talkeetna Mountains, within the western half of the existing and the proposed Fox 3 MOA. By July, fledglings begin to fatten up for the trip south. Trumpeter Swans (a BLM sensitive species) congregate in large lakes during this time. August till September is moose hunting season as well as the start of caribou hunting season. Federal subsistence hunters and state hunters congregate in the area for the prospect of bagging a moose or caribou. Subsistence use significantly increases during this time. By October, the fall caribou migration is in full swing. Hunters congregate along the Richardson Highway within the proposed Paxson MOA addition for the resumption of the winter caribou hunt. The subsistence caribou hunt continues in November and December but at a slower pace as the caribou continue their eastward movement to wintering grounds. Moose begin to congregate and move towards higher elevations and their digestive tract begins to adapt to winter forage. This is generally a quiet time when animals prepare for the winter.

The degree to which the proposed action may affect wildlife depends largely on noise level, frequency of activity, the intensity of the activity, and the wildlife community that is present at the time of the activity. The social significance of the area in terms of federal subsistence use also needs to be considered.

Documented Noise Sensitive Areas:

The BLM-GFO would like to bring ALCOM to the attention of their own map provided on page 14 of the JPARC Modernization and Enhancement EIS handout provided at scoping meetings in Glennallen. The map titled "Proposed Night Joint Training Special Use Airspace" documents known noise sensitive areas. The BLM-GFO would like ALCOM to continue to recognize these documented noise sensitive areas that were created during the last planning period and would also request that they be reviewed and updated to reflect current use and resource issues (see attached pdf titled, "Noise/Flight Sensitive Area List (current as of November 1996).") Some of these documented areas coincide with several of the locations presented in these comments, namely the Delta and Gulkana Wild and Scenic Rivers, and areas utilized by migratory birds, nesting waterfowl, and calving moose and caribou.

Planning Process:

The JPARC planning newsletter dated 12.03.10 shows that ALCOM is in the scoping phase for the JPARC EIS. However, throughout the document, alternatives A, B, C, and D as well as the No Action Alternative are already being proposed. The use of the word "alternatives" during the scoping phase of a National Environmental Policy Act (NEPA) planning process is confusing. Scoping should provide an opportunity to develop issues that then lead to the development of alternatives in a Draft EIS.

Thank you for the opportunity to comment. Our office looks forward to working with ALCOM throughout the JPARC EIS planning period to mitigate concerns and to suggest alternatives. If you have additional questions, please contact our office at 907-822-3217.

Sincerely,



Beth Maclean
Field Manager

Enclosure(s):

1. East Alaska Proposed Resource Management Plan and Final EIS (cd)
2. East Alaska Resource Management Plan Record of Decision and Approved Plan (cd)
3. Gulkana National Wild River Record of Decision Final Environmental Assessment and Revised River Management Plan
4. Draft Environmental Assessment for the Delta River Special Recreation Management Area Plan and East Alaska Resource Management Plan Amendment
5. Over flights 2007
6. Over flights 2000
7. Summary of comments to Draft EA for the Delta River SRMA Plan and East Alaska RMP Amendment
8. Noise/Flight Sensitive Area List (current as of November 1996)"

Kari Rogers/GFO/AK/BLM/DOI
05/30/2007 04:02 PM

To
Heath Emmons/GFO/AK/BLM/DOI@BLM, William Runnoe/GFO/AK/BLM/DOI@BLM
cc
Bruce E Rogers/GFO/AK/BLM/DOI@BLM, Ramone McCoy/GFO/AK/BLM/DOI@BLM
bcc

Subject
military overflight in the Delta WSR corridor

Today, 30 May 2007 at about 1 p.m., while I was driving south on the Richardson Highway near MP 207 adjacent to the Delta Wild and Scenic River corridor, I experienced something like never before. Out of nowhere, there was a deafening blast with repercussion and tremendous roar that absolutely scared me to death. My first thought was that my truck had exploded and I hit the brakes and pulled off the highway immediately. The roar continued as I jumped out of the truck; then another deafening blast and roar hit and I saw an F-16 jet blasting downriver above the Delta River, scarcely 200 feet above the water. The jet was visible for only a moment or two before disappearing around a bend in the river. It banked hard around the corner and flipped 90 degrees to maneuver, like you see them do in the movies.

It was an impressive sight, but not something that I expected to see that close to the ground or within the Delta WSR corridor.

Kari

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Military Overflights
Delta National Wild and Scenic River
Gulkana National Wild River
Summer 2000

To files:

On July 17, 2000, BLM staff (Kathy Liska, Brian Glaspell, Denton Hamby and Heath Emmons) left the Delta NWSR Wayside boat launch at approximately 2:30pm to canoe through the Upper Tangle Lakes (in the Delta National Wild & Scenic River corridor) and portage to Dickey Lake to float the Middle Fork of the Gulkana River (in the Gulkana National Wild River corridor).

While portaging from Upper Tangle Lake to Mud Lake, the group saw two USAF F-15 aircraft flying overhead from west to east at 1000 agl or lower at 4:05pm. (The cockpits were easily visible, but couldn't make out the shape / forms of the pilots.) The noise was deafening.

The following day (July 18), the group entered the Middle Fork (from Dickey Lake) at approximately 3:15pm. At approximately 3:30pm two USAF F-15 aircraft flew past from west to east at about 1000 agl. The level of flight and noise and flight pattern were similar to that experienced on July 17.

On August 9, 2000, at approximately 4:25 pm, Brian Glaspell and Denton Hamby were just getting out of a canoe at the Delta NWSR Wayside boat launch when multiple sonic booms occurred. The booms were so loud / intense, they nearly knocked them over. They did not immediately spot the plane but shortly after thought they saw the aircraft flying north - northeast.

Another BLM crew was on the Delta River (near Eureka Creek) on August 9 also reported hearing a series of sonic booms about the same time but no aircraft was sighted.

On August 8, Kathy Liska was driving the Denali Highway. At approximately 4:00 pm at MP 85 (west of the Susitna River) a loud roar was followed by a second roar (that was loud enough to be almost overwhelming) caused her to pull off the road until the noise subsided. A passenger car coming in the opposite direction stopped in the middle of the road and driver jumped out and ran to the ditch. No aircraft was sighted.

Kathy Liska

NOISE/FLIGHT SENSITIVE AREA LIST

**Current as of November 1996
(** Denotes change from previous list)**

****1. Pleasant Valley Subdivision**

- a. Description: 64° 55' 00"N/147° 00' 00"W to EIL TACAN 340°R to 007°R
64° 55' 00"N/146° 45' 00"W to 10 to 16 DME
64° 51' 30"N/146° 45' 00"W to
64° 50' 00"N/146° 50' 00"W to
64° 50' 00"N/147° 00' 00"W to
point of beginning
- b. Altitude: Surface to 6000' MSL. Other altitudes restricted to non-maneuvering, non-afterburning, navigational flight
- c. Time of year: Continuous

2. Chena Recreation Area

- a. Description: 65° 00' 00"N/146° 16' 00"W to
65° 00' 00"N/146° 05' 00"W to
64° 52' 00"N/146° 05' 00"W to
64° 49' 00"N/146° 09' 00"W to
64° 49' 00"N/146° 15' 00"W to
64° 51' 00"N/146° 35' 00"W to
64° 55' 33"N/146° 35' 00"W to
64° 57' 00"N/146° 18' 00"W to
point of beginning
- b. Altitude: Surface to 1500' AGL
- c. Time of year: 1 May to 30 Sep

3. Chena Hot Springs Resort

- a. Description: Three nautical mile radius around 65° 03' 00"N/146° 03' 00"W
- b. Altitude: Surface to 1500'AGL
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- c. Time of year: Continuous

****4. Salcha River Area One**

a. Description:

- 64° 29' 20"N/146° 55' 00"W thence via the 4nm arc centered at 64° 25' 30"N/146° 51' 00"W counterclockwise to
64° 22' 15"N/146° 46' 00" W to
64° 32' 00"N/146° 05' 00"W to
64° 34' 00"N/146° 15' 00"W to
64° 34' 00"N/146° 35' 00"W to
point of beginning

- b. Altitude: Surface to 8000' MSL for turbojet/turbofan aircraft
Surface to 1500' AGL for all other aircraft

- c. Time of year: Continuous

****5. Salcha River Area Two**

- a. Description: 64° 34' 00"N/146° 15' 00"W to
64° 37' 00"N/146° 12' 00"W to
64° 41' 00"N/145° 46' 00"W to
64° 40' 00"N/145° 38' 00"W to
64° 32' 00"N/146° 05' 00"W to
point of beginning

- b. Altitude: Surface to 1000' AGL continuous
Surface to 5000' MSL 1 Sep to 20 Sep for turbojet/turbofan aircraft

6. Sheep Lambing Area and Newman Creek Airstrip (63° 58' 41"N/147° 15' 42"W)

- a. Description: 64° 00' 00"N/148° 00' 00"W to
63° 34' 00"N/148° 00' 00"W to
63° 34' 00"N/146° 24' 00"W to
63° 40' 00"N/146° 58' 00"W to
63° 55' 00"N/147° 15' 00"W to
63° 58' 45"N/147° 13' 20"W to
64° 00' 00"N/147° 15' 00"W to
point of beginning

- b. Altitude: Surface to 1500' AGL

c. Time of year: 1 May to 30 Jun

7. Wood River Lodge

- a. Description: Three nautical mile radius around 63° 46' 00"N/147° 58' 00"W
- b. Altitude: Surface to 1500'AGL
- c. Time of year: Continuous

8. Clear Creek Cabins

- a. Description: One nautical mile radius around 64° 13' 05"N/146° 13' 00"W
- b. Altitude: Surface to 1500'AGL
- c. Time of year: Continuous

9. Delta Junction

- a. Description: Three nautical mile radius around 64° 02' 30"N/145° 43' 30"W.
- b. Altitude: Surface to 1500' AGL
- c. Time of year: Continuous

10. Birch Lake State Recreation Site

- a. Description: One nautical mile radius around 64° 19' 00"N/146° 39' 00"W
- b. Altitude: Surface to 2000' AGL
- c. Time of year: 15 May to 30 Sep

~~11. Harding Lake - 11. Harding Lake~~**

- ~~a. Description: Two nautical mile radius around 64° 25' 30"N/146° 51' 00"W~~
- ~~b. Altitude: Surface to 1000' AGL~~

~~e. Time of year: Continuous~~
Replaced by new #4

12. Hog Farm

- a. Description: One nautical mile radius around 61° 59' 00"N/147° 01' 00"W
- b. Altitude: Surface to 1000' AGL
- c. Time of year: Continuous

13. Ryan Lodge

- a. Description: One nautical mile radius around 62° 02' 00"N/146° 40' 00"W
- b. Altitude: Surface to 1500' AGL
- c. Time of year: Continuous

14. Parks Highway

- a. Description: Two nautical miles either side of the highway from Willow, 61° 45' 00"N/150° 02' 00"W, to Palmer, 61° 36' 00"N/149° 07' 00"W
- b. Altitude: Surface to 500' AGL
- c. Time of year: Continuous

15. Glenn Highway

- a. Description: Two nautical miles either side of Glenn Highway from Sheep mountain NDB, 61° 49' 00"N/147° 30' 00"W, to Palmer, 61° 36' 00"N/149° 07' 00"W
- b. Altitude: Surface to 1000' AGL
- c. Time of year: Continuous

16. Denali Highway

- a. Description: Five nautical miles either side of the road from the park entrance, 63° 44' 00"N/148° 55' 00"W, to Kantishna, 63° 32' 00"N/150° 57' 00"W
- b. Altitude: Surface to 2000' AGL
- c. Time of year: 15 May to 15 Sep

17. Yukon MOAs Peregrine Falcon Areas

- a. Description: Two nautical miles either side of riverbank
 - Upper Yukon River: 64° 41' 00"N/141° 00' 00"W to 65° 46' 00"N/144° 00' 00"W
 - Charley River: 64° 41' 00"N/143° 38' 00"W to 65° 19' 00"N/142° 46' 00"W
 - Kandick River: 65° 44' 00"N/141° 17' 00"W to 65° 22' 00"N/142° 30' 00"W
 - Porcupine River: 67° 24' 00"N/141° 00' 00"W to 66° 59' 00"N/143° 08' 00"W
- b. Altitude: Surface to 2000' AGL
- c. Time of year: 15 Apr to 31 Aug

18. Fox Farm

- a. Description: One nautical mile radius around 64° 09' 12"N/145° 52' 30"W
- b. Altitude: Surface to 1000' AGL
- c. Time of year: 1 Feb to 1 Jul

19. Delta National Wild and Scenic River

- a. Description: Five nautical miles either side of the river from 63° 03' 00"N/145° 59' 00"W to 63° 34' 00"N/145° 53' 00"W
 - b. Altitude: Surface to 5000' MSL
 - c. Time of year: 27 Jun to 11 Jul
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20. Mulchatna River Fishing Lodge

- a. Description: One nautical mile radius around 60° 24' 00"N/155° 54' 00"W
- b. Altitude: Surface to 1500' AGL
- c. Time of year: 1 May to 30 Sep

21. Town of Nulato

- a. Description: Two nautical mile radius around 64° 43' 00"N/158° 09' 00"W
- b. Altitude: Surface to 1000' AGL
- c. Time of year: Continuous

22. Healy Lake/Village

- a. Description: Three nautical mile radius around 63° 59' 00"N/144° 45' 00"W
- b. Altitude: Surface to 6000' MSL
- c. Time of year: Continuous

23. Fielding Lake State Recreation Sites

- a. Description: One nautical mile radius around 63° 10' 00"N/145° 40' 00"W and one nautical mile radius around 63° 11' 12"N/145° 38' 00"W
- b. Altitude: Surface to 2000' AGL
- c. Time of year: 15 May to 30 Sep

24. Donnelly Creek State Recreation Site

- a. Description: One nautical mile radius around 63° 39' 40"N/145° 53' 00"W
- b. Altitude: Surface to 2000' AGL
- c. Time of year: 15 May to 30 Sep

****25. Summit Lake Lodge - No longer exists**

26. Caribou Calving Area

- a. Description: Five nautical miles either side of the line from 62° 17' 00"N/148° 00' 00"W to 62° 43' 00"N/147° 22' 00"W
- b. Altitude: Surface to 1000' AGL
- c. Time of year: 1 May to 30 Jun

27. Sheep Lambing Area

- a. Description: 63° 21' 00"N/145° 05' 00"W to 63° 33' 00"N/144° 05' 00"W to 63° 22' 00"N/144° 05' 00"W to 63° 10' 00"N/145° 05' 00"W to point of beginning
- b. Altitude: Surface to 1000' AGL
- c. Time of year: 1 May to 30 Jun

28. Lake George

- a. Description: Two nautical mile radius around 63° 47' 00"N/144° 32' 00"W
- b. Altitude: Surface to 1500' AGL
- c. Time of year: Continuous

29. Shaw Creek Youth Camp

- a. Description: One nautical mile radius around 64° 16' 00"N/146° 06' 00"W
- b. Altitude: Surface to 1500' AGL
- c. Time of year: Continuous

30. Town of Circle City

- a. Description: Two nautical mile radius around 65° 50' 00"N 144° 04' 00"W
- b. Altitude: Surface to 6000' MSL
- c. Time of Year: Continuous

31. Towns of Central and Circle Hot Springs

- a. Description: 65° 35' 00"N/144° 55' 00"W to
65° 38' 00"N/144° 45' 00"W to
65° 29' 00"N/144° 30' 00"W to
65° 26' 00"N/144° 39' 00"W to
point of beginning
- b. Altitude: Surface to 10,000' MSL
- c. Time of Year: Continuous

32. Mouth of Alexander Creek

- a. Description: One nautical mile radius around 61° 25' 00"N/150° 35' 00"W
- b. Altitude: Surface to 1500' AGL
- c. Time of Year: 1 May to 1 Oct

33. Mouth of Lake Creek

- a. Description: One nautical mile radius around 61° 54' 18"N/150° 54' 30"W
- b. Altitude: Surface to 1500' AGL
- c. Time of Year: 1 May to 1 Oct

34. Mouth of Kroto (Deshka) Creek

- a. Description: One nautical mile radius around 61° 42' 00"N/150° 18' 18"W
- b. Altitude: Surface to 1500' AGL
- c. Time of Year: 1 May to 1 Oct

35. Neil Lake

- a. Description: One nautical mile radius around 61° 56' 00"N/150° 23' 00"W
- b. Altitude: Surface to 1500' AGL
- c. Time of Year: 1 May to 1 Oct

36. Gulkana National Wild and Scenic River

- a. Description: Five nautical miles either side of the river from 62° 52' 00"N/
145° 36' 00"W to 62° 31' 00"N/145° 31' 00"W
- b. Altitude: Surface to 5000' MSL
- c. Time of year: 27 Jun to 11 Jul

37. Towns of Central and Circle Hot Springs (Supersonic operations)

- a. Description: No supersonic operations within a ten nautical mile radius of
65° 31' 00"N/144° 43' 00"W
- b. Altitude: Surface to FL350
- c. Time of year: Continuous

****38. Hunting Season in the Yukon MOA - Replaced by #4, #5, and #40**

39. Gold King Creek Airstrip

- a. Description: Three nautical mile radius around 64° 10' 29"N/147° 56' 00"W
- b. Altitude: Surface to 1500' AGL
- c. Time of Year: Continuous

****40. Salcha River Area Three**

- a. Description: Two nautical miles either side of Salcha River from
64° 39' 30"N/145° 45' 00"W to 64° 39' 00"N/145° 20' 15"W
- b. Altitude: Surface to 5000' MSL for turbojet/turbofan aircraft
Surface to 1000' AGL for all other aircraft
- c. Time of Year: 1 Sep to 20 Sep

****41. Caribou Hunting Area**

- a. Description: Five nautical miles either side of the line from
62° 51' 00"N/147° 09' 00"W to 62° 59' 00"N/145° 54' 00"W
- b. Altitude: Surface to 1000' AGL
- c. Time of Year: 1 Aug to 30 Sep

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