FEDERAL AVIATION ADMINISTRATION WRITTEN RE-EVALUATION, ADOPTION OF ENVIRONMENTAL IMPACT STATEMENT AND RECORD OF DECISION

FOR

The Modernization and Enhancement of Ranges, Airspace, and Training Areas in the Joint Pacific Alaska Range Complex in Alaska (JPARC)

United States Army
Restricted Area R-2201 Establishment at Battle Area Complex;
Restricted Area R-2205 Expansion;
and

Modification of Legal Descriptions of Viper A, Viper B, Yukon 1, Buffalo, Delta 3 and Delta 4 Military Operations Areas

1 INTRODUCTION

This document serves as the Federal Aviation Administration's (FAA) adoption of the United States Departments of the Army (Army) and Air Force's (USAF) Final Environmental Impact Statement (EIS) for the proposed Modernization and Enhancement of Ranges, Airspace, and Training Areas in the Joint Pacific Alaska Range Complex (JPARC) in Alaska (AK).

Pursuant to section 102 of the National Environmental Policy Act (NEPA) of 1969, as amended, the Council on Environmental Quality (CEQ) regulations (40 Code of Federal Regulations [C.F.R.] Parts 1500-1508) implementing the procedural provisions of NEPA, the FAA announces its decision to adopt the portions specific to the Battle Area Complex (BAX) Restricted Area and the Expand Restricted Area R-2205, including the Digital Multi-Purpose Training Range (DMPTR), from the June 2013 Final Environmental Impact Statement for the Modernization and Enhancement of Ranges, Airspace, and Training Areas in the Joint Pacific Range Complex in Alaska.

The EIS complies with FAA Order 1050.1E, Appendix A (Analysis of Environmental Impact Categories). FAA Order 1050.1E¹ was in effect when the Army and USAF completed the JPARC EIS. Per FAA Order 1050.1 F, Paragraph 8-2.b, the FAA must prepare a Written Re-Evaluation (WR) to determine whether the consideration of alternatives, impacts, existing environment, and mitigation measures set forth in the Final EIS remain applicable, since the FAA did not adopt the Army and USAF's Final EIS within three years. The JPARC Final EIS was published in June 2013 and the Army/USAF Record of Decision (ROD) was issued on August 6, 2013.

¹ FAA Order 1050.1E was superseded on July 16, 2015 and replaced with FAA Order 1050.1F, which states the procedures in 1050.1F apply to the extent practicable to ongoing activities and environmental documents begun before the effective date. Therefore, this WR and Record of Decision (ROD) has been prepared in accordance with FAA Order 1050.1F.

2 BACKGROUND

The military currently uses the JPARC to conduct testing and unit-level training and to support various joint exercises and mission rehearsals. JPARC's current configuration does not fully meet the training requirement for military forces and exercises conducted in Alaska. The proposed JPARC modernization and enhancements would enable realistic joint training and testing to support emerging technologies, respond to recent battlefield experiences, and train with tactics and new weapons systems to meet combat and national security needs. To meet its military training needs better, the Army and USAF have requested that the FAA modify, expand, and establish Special Use Airspace (SUA) in the JPARC.

The JPARC FEIS analyzed 12 actions (6 definitive and 6 programmatic²) for the AF and the Army.

Of the 12 actions analyzed, seven are Army actions, which include:

- Battle Area Complex (BAX) Restricted Area Addition (definitive)
- Restricted Area R-2205 Expansion, including the Digital Multi-Purpose Training Range (DMPTR) (definitive)
- Unmanned Aerial Vehicle (UAV) Access (definitive)
- Enhancement of Ground Maneuver Space (programmatic)
- Tanana Flats Training Area (TFTA) Roadway Access (programmatic)
- Joint Air-Ground Integration Complex (programmatic)
- Intermediate Staging Bases (programmatic)

Of the 12 actions analyzed, five are USAF actions, which include:

- Fox 3 Military Operations Area (MOA) Expansion / Paxon MOA Addition (definitive)
- Realistic Live Ordnance Delivery (RLOD) (definitive)
- Night Joint Training (NJT) (definitive)
- Missile Live-Fire for AIM-9 and AIM-120 (programmatic)
- Joint Precision Airdrop System Drop Zones (programmatic)

Each of the actions listed above have independent utility and are not dependent on the others for implementation.

The USAF and Army issued one ROD. The ROD lists the Army and USAF actions and decisions separately. The ROD includes an Army Decision, signed July 30, 2013, and an USAF Decision signed August 6, 2013. The Army selected the preferred alternatives for the BAX R-2201, the DMPTR R-2205 expansion, and the UAV Access. The ROD also lists mitigation measures by agency and specific action.

² The programmatic documentation in the Final EIS provided baseline information, project site selection and development criteria, and outlines a process from which additional studies may be undertaken or tiered from the Final EIS to allow additional, site-specific NEPA analyses to be undertaken.

The Army has since worked with the FAA to establish UAV Access through COAs in lieu of restricted areas. FAA is not considering the UAV Access activities as part of this ROD.

This FAA ROD covers the BAX R-2201 establishment and the DMPTR R-2205 expansion, both of which are Army actions. It also addresses the related modifications to the legal descriptions of Buffalo, Delta 3 and Delta 4 MOAs to exclude the proposed BAX R-2201 airspace when active; and the Viper A, Viper B, and Yukon MOAs to exclude the proposed DMPTR R-2205 airspace when activated. The new proposed restricted areas are not continuous and the MOAs are not continuous; therefore, the potential exist for both the restricted areas and MOAs to be active at the same time. To alleviate this situation, the MOA descriptions are proposed to be amended to exclude those portions that overlap into the restricted areas when the restricted areas are active at the same time as the MOAs.

Figure 1-1 in the JPARC Final EIS shows the locations of the existing SUA in AK. Figure 2-7 in the JPARC Final EIS shows the original proposal for the establishment of BAX R-2201. The boundaries for the proposed BAX R-2201 have noticeably changed since the Final EIS was issued. Figure 2-9 in the JPARC EIS shows the original proposal for the expansion of DMPTR R-2205. The boundaries for the proposed DMPTR R-2205 have minor changes since the Final EIS was issued. Both of the revised proposals are discussed in Section 2.2 below.

The FAA has independently evaluated the JPARC Final EIS. FAA previously prepared a ROD for the USAF's Fox 3 MOA Expansion, the establishment of the Paxon and Delta 5 MOAs, and the Night Joint Training expansion of the times of use. The USAF and Army actions have been separated into two FAA RODs because FAA originally found that the USAF SUA proposals were ripe for a decision while the Army SUA proposals were still undergoing aeronautical processing and development. Therefore, the scope and extent of this FAA Record of Decision is only for the BAX R-2201 establishment and the DMPTR R-2205 expansion SUA proposals in AK.

2.1 Environmental Impact Statement Process

As the lead agencies, the Army and USAF published the JPARC EIS in accordance with the National Environmental Policy Act (NEPA) and in accordance with the Memorandum of Understanding (MOU) between the FAA and Department of Defense (DoD), "Concerning Environmental Review of Special Use Airspace (SUA) Actions", dated October 4, 2005.

By letter dated February 16, 2011 (included in Appendix L of the Final EIS), the USAF and Army jointly requested participation from the FAA as a cooperating agency (see 40 CFR § 1501.6) in the preparation of an environmental impact statement for the JPARC. By letter dated March 10, 2011 (included in Appendix L of the Final EIS), the FAA, having responsibility for approving special use airspace under 49 United States Code (U.S.C.) section 40103(b)(3)(A), accepted cooperating agency status.

The Army and the USAF published a Draft EIS for the JPARC modernization in March 2012. As a cooperating agency, the FAA participated in the preparation of the Draft EIS, including reviewing drafts and providing input. The public requested an extension of the normal 45-day

Draft EIS review period. Therefore, the public comment period on the Draft EIS ran from March 30, 2012 to July 9, 2012.

During the comment period, the Army and USAF, with the support of Alaskan Command (ALCOM), held a series of public hearings. Notices of the meetings were placed in six newspapers. Notification was also provided through the project website, press releases, public service announcements, posted fliers in surrounding communities, and letters or mailers sent to entities on the project mailing list.

The Draft EIS comments and responses are contained in Appendix N, *Draft EIS Comments and Responses*. A total of 266 comment submittals were received, including 1,361 independent comments in 23 topics. The topics of greatest concern included the proposed Fox 3 and Paxon MOAs; the proposed lowering of the Special Use Airspace (SUA) to 500 feet above ground level (AGL); and related impacts on civil aviation, residents, recreation, hunting, wildlife, subsistence activities, the tourism industry, and commercial aviation access. Safety concerns mainly focus on airspace conflicts below 5,000 feet AGL, particularly the mix of high-speed aircraft and small, low-speed general aviation aircraft. Other airspace-specific concerns included proposed airspace restrictions over the Battle Area Complex and Isabel Pass.

The JPARC Final EIS analyzes a combination of definitive and programmatic actions. The analysis of definitive actions provides sufficient information to fully disclose potential environmental impacts of a proposed action and to make a decision to implement the proposed action. The programmatic actions are general actions that require additional planning, programming, or development. The overall planning process for these programmatic projects would benefit from the environmental evaluation of the potential impacts in the JPARC EIS, and a programmatic decision on how the proponent should move the project forward. The programmatic documentation in the Final EIS provides baseline information, project site selection and development criteria, and outlines a process from which additional studies may be undertaken or tiered from the JPARC EIS to allow future additional, site-specific NEPA analyses to be undertaken, based on the best available information.

The JPARC Final EIS was issued in June of 2013, and it fully analyzed the potential environmental impacts of the alternatives. The Environmental Protection Agency (EPA) published its receipt of the Final EIS in the Federal Register on June 28, 2013 (78 FR 38975). A 30-day waiting period took place between June 28, 2013 and July 29, 2013.

The Army and USAF signed the Record of Decision (ROD) on July 30, 2013, and August 6, 2013 respectively. The ROD identifies the USAF and Army decision on six definitive proposals analyzed in the Final EIS. The Notice of Availability for the ROD was published in the Federal Register on August 20, 2013 (78 FR 51176).

2.2 FAA Aeronautical Process³

The aeronautical process typically takes place contemporaneously with the environmental process for SUA actions. Two SUA actions are being considered in this ROD: the establishment of the BAX R-2201 and the expansion of the DMPTR R-2205.

BAX R-2201

The JPARC Final EIS stated any specific impacts or limitations from the JPARC EIS airspace proposal may have on instrument flight rules (IFR) and visual flight rules (VFR) air traffic would be examined in FAA's aeronautical study.⁴

FAA Anchorage Air Route Traffic Control Center (ZAN) completed an aeronautical study for BAX R-2201 on February 8, 2016. It recommended modifying the proposed BAX R-2201 due to impacts to the NAS. FAA decided to proceed with the Notice of Proposed Rule Making (NPRM) to use public comments to identify all safety and operational concerns to help with the redesign of the proposed BAX R-2201.

FAA issued a NPRM on March 6, 2017 for BAX R-2201 (82 FR 12529) to allow interested persons to comment on the establishment of BAX R-2201. Comments were received from 34 parties. Comments described concerns about the narrow width of the VFR route to and from the Isabel Pass and the need for sufficient clearance from the Donnelly Dome area. Due to all the safety-related comments received from the original BAX R-2201 NPRM, FAA determined that the proposed BAX R-2201 should be redesigned and the updated proposal would go through a Supplemental NPRM.

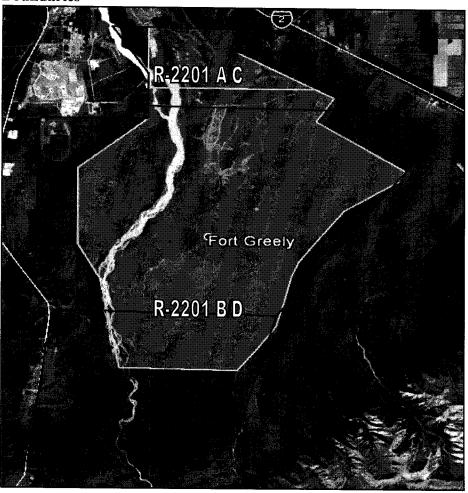
FAA received a revised Aeronautical Proposal from the Army on June 5, 2017. Additional changes were made to the Aeronautical Proposal as a result of continued cooperation between the Army and FAA. FAA received a Final Legal Description on August 22, 2017. ZAN reviewed the updated proposal for the reduced area BAX R-2201, and concurred via a September 19, 2017 email stating they had no recommendations on the new design. A complete Final Aeronautical Proposal that included the Legal Description previously provided on September 19, 2017 was received on October 18, 2017.

Figure 1 below shows the boundary differences between the JPARC Preferred Alternative and FAA's Proposed Action, which is based on the Final Aeronautical Proposal.

³ FAA Joint Order 7400.2, Appendix 4. FAA Procedures for Processing SUA Actions describes how the steps of the FAA aeronautical and environmental processes overlap.

⁴ See JPARC Final EIS, page 3-189, Public Airports and Charted Private Airfields paragraph.

Figure 1: JPARC EIS BAX R-2201 Boundaries vs. FAA Proposed Action BAX R-2201 Boundaries





JPARC EIS Boundaries Final Proposal/FAA Proposed Action Boundaries

The changes to the lateral boundaries of the proposed BAX R-2201 were made to address the concerns about the narrow width of the VFR route to and from the Isabel Pass. These changes include:

- The proposed western boundaries of BAX R-2201 were moved eastward.
- The southern boundary was moved northward to provide a larger VFR corridor along the Richardson Highway, as well additional clearance from the Donnelly Dome area.
- The eastern and southwestern boundaries were modified to allow VFR pilots to utilize viable ground reference points to more easily circumnavigate the restricted area.

The Supplemental NPRM for BAX R-2201 was issued on January 11, 2018 (83 FR 1316), and two comments were received from two parties. One commenter raised re-routing issues regarding the Delta MOAs, and FAA determined the routing is minimally impacted by the proposed BAX R-2201. Aircraft Owners and Pilots Association (AOPA) was the second commenter. They asked

for the Final Rule to clarify the access allowed by air traffic, and for the Final Rule to be effective with the Sectional Chart cycle.

Changes to Legal Descriptions for Buffalo, Delta 3, and Delta 4 MOAs

FAA determined the potential exists for one or more of the subsections of BAX R-2201, and one or more of the MOAs to be active at the same time. To alleviate this situation, the FAA Proposed Action will amend the legal description of each. The proposed change to the legal descriptions for Buffalo, Delta 3, and Delta 4 MOAs would add exclusionary language to the MOAs for when one or more of the subsections of BAX R-2201 is activated.

The usage of the MOAs by the U.S. Air Force is not expected to change as a result of this proposed change in legal description.

DMPTR R-2205

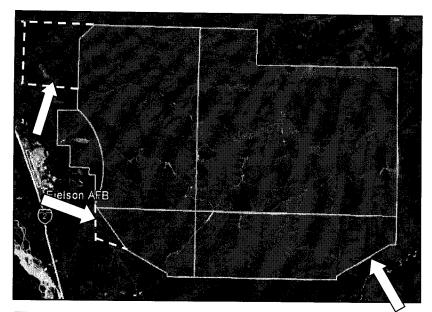
FAA Anchorage Air Route Traffic Control Center (ZAN) completed an aeronautical study for DMPTR R-2205 on November 24, 2015, and no changes were recommended.

FAA issued a NPRM on March 6, 2017 for DMPTR R-2205 (82 FR 12526) to allow interested persons to comment on the expansion of DMPTR R-2205. Comments were received from 10 parties. Several commenters stated they had safety concerns, but they were not specific. AOPA commented that the modification of the airspace areas to improve General Aviation access to the Trans-Alaska Pipeline and VFR corridor along the Chena River would improve safety. The Alyeska Pipeline Service Company, the operating agent for the owners of the Trans-Alaska Pipeline (TAPS), requested the boundaries of DMPTR R-2205 be re-evaluated to allow for access for their required weekly infrastructure surveillance. Two other commenters thought the requested airspace was too large. Three commenters raised issues on BAX R-2201, which was outside the scope of the NPRM for DMPTR R-2205. The issues raised were similar to comments on the original NPRM for BAX R-2201.

Internal Divisions: After the Final EIS but before the final submission, the Army reviewed the current and expected use of the airspace and found that they could reduce the burden on the flying public by redesigning the internal divisions so that portions not required to be active for certain activities could remain "cold" and, thereby, available for public use. For example, the southern sections of the proposed DMPTR R-2205 are unlikely to be activated during routine training exercises firing from the vicinity of Eielson AFB into the impact area to the east (however, under some scenarios, those areas would still be activated and used for concurrent training operations). Under the original submission, which generally followed existing lines, all areas would have been activated instead of only 3 of 5 (in this scenario).

There are some minor changes to DMPTR R-2205 from what was analyzed in the JPARC Final EIS that are considered as part of this WR. The reasons for the changes are explained below. The white arrows in Figure 2 below show the location of the boundary changes.

Figure 2: JPARC EIS DMPTR R-2205 Boundaries and FAA Proposed Action DMPTR R-2205 Boundaries



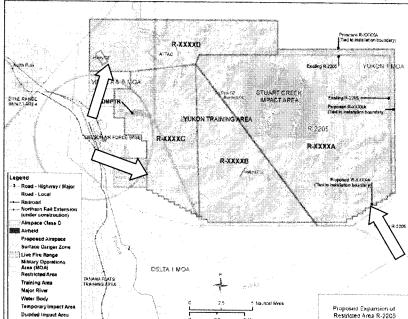


Figure 2-9. Proposed Expansion of Restricted Area R-2205

NW Corner: The NW corner was clipped to improve aviation safety and reduce the burden on non-participating traffic. Civil aircraft transition along the Chena River and the various agencies asked for additional standoff to help civil pilots remain well clear of hazardous activities while following the river during VFR flights. Additionally, at higher altitudes. the USAF uses that area to conduct multi-ship recoveries during major flying exercises. Removing that small corner had the added benefit of reducing the complexity of the airspace (i.e., the USAF fighters can remain clear of the restricted airspace using their current coordinated procedures with no additional coordination).

SW Corner: The SW corner was also clipped to improve aviation safety and reduce the burden on non-participating traffic.

Specifically, the Alaska Pipeline runs along that portion of the DMPTR R-2205 proposal. As originally scoped, an excessive burden would have been placed on TAPS so they could continue to conduct their safety

inspections of the pipeline (i.e., they would need to make continuous coordination to conduct their inspections and the inspections would have sometimes intruded on active restricted airspace which, in turn, might interrupt necessary training). As there are currently no operational ground activities in that corner, it was of minimal impact to remove that portion of the airspace and simply adjust future plans to reflect that change.

SW and SE "Stair-Steps": The portions of the SW and SE airspace that resembled stair-steps were straightened at the request of the FAA SUA office to simplify the final design (i.e., fewer points to

plot). The Army agreed as the overall effect did not significantly impact the usefulness of the airspace.

Changes to Legal Descriptions for Viper A, Viper B, and Yukon 1 MOAs

FAA determined the potential exists for one or more of the subsections of DMPTR R-2205, and one or more of the MOAs to be active at the same time. To alleviate this situation, the FAA Proposed Action will amend the legal description of each. The proposed change to the legal descriptions for Viper A, Viper B, and Yukon 1 MOAs would add exclusionary language to the MOAs for when one or more of the subsections of BAX R-2201 is activated. Since this was not covered in the NPRM, FAA sent out the changes in a circularization dated May 9, 2019. No comments were received.

The usage of the MOAs by the U.S. Air Force is not expected to change as a result of this proposed change in legal description.

Conclusion

The modification to the lateral boundaries for both BAX R-2201 and DMPTR R-2205 reduced the area of analysis for both restricted areas. Even with these area reductions, the training activities analyzed in the Final EIS are not expected to change even with the modification of the lateral boundaries; therefore the environmental and aeronautical analyses are still valid. Because the changes did not result in substantial change to impacts, and the revised action areas do not reflect significant new circumstance or information relevant to environmental concerns, a supplement to the Final EIS is not required.

2.3 Written Re-Evaluation (WR)

The JPARC Final EIS was published in June 2013 and the Army/USAF ROD was issued on August 6, 2013. Since more than three years has elapsed, the FAA prepared this WR of the JPARC Final EIS to determine whether the JPARC Final EIS remains valid or a new or supplemental environmental document is required.

As part of this analysis to determine if the Final EIS remains valid, FAA identified changes that are relevant to the FAA Proposed Action since the Army/USAF 2013 Final EIS and ROD was issued. The changes that warranted additional analysis for FAA's WR is the Army's decision to reduce the sizes of the BAX R-2201 and DMTPR R-2205. FAA also evaluated whether the addition of exclusionary language to Viper A, Viper B, Yukon 1, Buffalo, Delta 3 and Delta 4 MOAs resulted in any changes to the environmental analysis.

Since the JPARC FEIS was issued, the USAF released their *Hard Look and Clarification of Noise and Cumulative Impacts Analysis in Response to FAA Questions for Joint Pacific Alaska Range Complex March 2018 (Hard Look)*. This report updated the noise baseline and provided an updated cumulative impact analysis. FAA considered the *Hard Look* results in this WR analysis when it evaluated whether the noise and cumulative impacts of the project remain valid.

As determined by analysis in the Environmental Consequences section of this ROD; the lateral boundary changes to BAX R-2201 and DMPTR R-2205; and the changes to the legal descriptions of Viper A, Viper B, Yukon 1, Buffalo, Delta 3 and Delta 4 MOAs do not create a

substantial change to the impacts already disclosed in the EIS, and do not reflect significant new circumstances or information relevant to environmental concerns. Therefore, a supplement to the Final EIS is not required.

3 PURPOSE AND NEED

The purpose of the Proposed Actions is to modernize and enhance the JPARC to best support current and future military exercises in and near Alaska. The proposed JPARC modernization and enhancements would enable realistic joint training and testing to support emerging technologies, respond to recent battlefield experiences, and train with tactics and new weapons systems to meet combat and national security needs.

JPARC consists of all land, air, and sea training areas used by the Army, Navy, and USAF (the Services). The JPARC was originally developed to support older and in some cases now-obsolete weapons and tactics. Its current configuration cannot fully meet the training requirement for military forces and exercises conducted in Alaska, and requires a more contemporary and versatile design and improved infrastructure to meet the present and future needs of the military.

The Alaska air, land, and maritime training areas were originally developed to support World War II and Cold War weapons, tactics, and techniques. As joint war fighting doctrine has developed since the end of the Cold War and after September 11, 2001, as new weapons systems and platforms come on-line, and as joint context training has evolved, JPARC, under its current configuration, can no longer fully meet the training and testing requirements for forces stationed in, and exercises occurring in and near, Alaska.

The four factors driving the need for enhanced and modernized training and testing facilities at JPARC are (1) technological advances, (2) advances in combat tactics and techniques and combat lessons learned, (3) the need to achieve diversified, realistic training in an efficient manner, and (4) the potential for synergy in meeting the physical needs of various Services and joint training.

Technological Advances

Technological advances in lethality, survivability, communications networks, and sensor capabilities continue to make Service members training in Alaska safer and more effective. These same advances stress the training infrastructure due to the extended weapons ranges and larger safety zones, increased demand for nighttime training, and expanded ground-maneuver and training space.

Advances in Combat Tactics and Techniques and Lessons from Combat

The DoD refines military tactics in response to lessons learned in training and combat operations, new equipment, and new tactics developed by current and potential adversaries. Training must mirror actual combat to the greatest extent possible.

Efficient Realistic Training

Realistic training with new tactics and weapon systems, which possess longer-range sensing and attack capabilities, allows fewer assets to cover larger areas. Concurrent with the requirement to

cover larger areas is the need to reduce inefficient training activities such as transiting or excessive delays between active training. Realistic training must be efficient to achieve readiness within real-world resources constraints.

Synergies

There are synergies to be gained by planning common infrastructure for the units and exercises in Alaska. Common communications networks, roads, and utilities lower the overall cost of operations and enhance the opportunities to train and test jointly.

4 FAA PROPOSED ACTIONS

The proposed FAA actions for this WR/ROD is solely the Army's request to establish and expand, SUA. The SUA changes include: BAX R-2201 establishment and the DMPTR R-2205 expansion.

Battle Area Complex (BAX) Restricted Area Addition

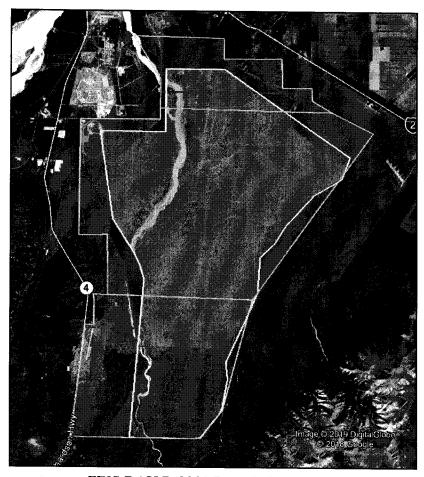
The Army's Proposed Action would establish a new restricted area over the BAX area within Donnelly Training Area (DTA) -East. The original aeronautical proposal would have converted airspace structure the area currently established as the BAX Controlled Firing Area (CFA) to a restricted area. However, as a result of comments received during the Notice of Proposed Rule Making (NPRM), the proposed BAX R-2201 is now smaller to minimize impacts to VFR air traffic.

As shown in Figure 3 below, the airspace structure proposed for the action alternative would convert much of the area currently established as the BAX Controlled Firing Area (CFA) to a restricted area.

The BAX CFA was established prior to 2012, and it was renewed in 2012, 2014, 2017, and 2019.

Each renewal is for two years, and the 2019 CFA was established on March 13, 2019 and will expire March 17, 2021. According to their plans, the CFA would remain in place until such a time as BAX R-2201 is established.

Figure 3: Boundaries of Final EIS R-XXXX, BAX CFA, and Proposed BAX R-2201 Reduced Boundaries



FEIS BAX R-2201 Boundaries BAX R-2201 Reduced Boundaries BAX CFA Boundaries

The proposed reduced boundaries BAX R-2201 airspace is still of sufficient area to encompass hazardous activities and weapons footprints for those types of munitions and ordnance to be used in this area. To fully support more realistic joint training at the BAX, the action alternative requires additional restricted area in lieu of the BAX CFA.

The proposed restricted area BAX R-2201 will have two subdivisions and these subdivisions would be stratified in two layers resulting in four subareas named BAX R-2201 A/B/C/D. BAX R-2201 A/C will have altitudes from the surface up to but not including 6,000 feet mean sea level (MSL); and R2201 B/D will have altitudes from 6,000 feet MSL up to but not including 11,000 feet MSL. The estimated use of BAX R-2201 would be 12 hours per training day up to approximately 238 days over the same daily timeframes.

BAX R-2201A/C overlies the Combined Arms Collective Training Facility (CACTF) and BAX R-2201B/D overlies the BAX. Approximately 60 percent of the BAX operations would occur below 6,000 feet MSL thus minimizing the need to activate the upper layer, causing minimal conflict with IFR traffic. The vast majority of all flight activities would be conducted by Army helicopters with occasional close air support provided by Air Force aircraft such as A-10s, F-16s and C-130s. Aviation activities would increase slightly above current levels as it is estimated that approximately 70 percent of the helicopter operations currently conducted in R-2202 would occur in the BAX restricted area.

Legal Descriptions BAX R-2201

R-2201A Fort Greely, AK:

Boundaries - Beginning at lat. 63°58'45"N., long. 145°35'06"W.;

to lat. 63°58'08"N., long. 145°35'05"W.; to lat. 63°57'06"N., long. 145°30'15"W.; to lat. 63°57'11"N., long. 145°39'25"W.; to lat. 63°58'48"N., long. 145°39'25"W.;

to the point of beginning.

Designated altitudes

Surface to but not including 6,000 feet MSL.

Time of designation

0700-1900 local time Monday-Friday; other times by NOTAM 4 hours

in advance.

Controlling agency

Using agency

FAA, Anchorage ARTCC.

U.S. Army, AK (USARAK), Commanding General, Joint Base

Elemendorf-Richardson (JBER), AK.

R-2201B Fort Greely, AK:

Boundaries - Beginning

at lat. 63°57'06"N., long. 145°30'15"W.;

thence clockwise along a 6.3-mile radius of Allen AAF;

to lat. 63°56'15"N., long. 145°31'19"W.; to lat. 63°54'54"N., long. 145°26'54"W.;

thence south along Granite Creek;

to lat. 63°49'33"N., long. 145°34'45"W.; to lat. 63°49'36"N., long. 145°40'45"W.;

thence north along the west bank of Jarvis Creek;

to lat. 63°52'14"N., long. 145°41'49"W.; to lat. 63°52'56"N., long. 145°42'52"W.; to lat. 63°55'01"N., long. 145°42'52"W.; to lat. 63°56'20"N., long. 145°39'26"W.; to lat. 63°57'11"N., long. 145°39'25"W.;

to the point of beginning.

Designated altitudes Time of designation

Surface to but not including 6,000 feet MSL.

0700-1900 local time Monday-Friday; other times by NOTAM 4 hours

in advance.

Controlling agency

FAA, Anchorage ARTCC.

Using agency

U.S. Army, AK (USARAK), Commanding General, JBER, AK.

R-2201C Fort Greely, AK:

Boundaries - Beginning

at lat. 63°58'45"N., long. 145°35'06"W.; to lat. 63°58'08"N., long. 145°35'05"W.; to lat. 63°57'06"N., long. 145°30'15"W.; to lat. 63°57'11"N., long. 145°39'25"W.; to lat. 63°58'48"N., long. 145°39'25"W.;

to the point of beginning.

Designated altitudes Time of designation 6,000 feet MSL to 11,000 feet MSL. By NOTAM 4 hours in advance.

Controlling agency

FAA, Anchorage ARTCC.

Using agency

U.S. Army, AK (USARAK), Commanding General, JBER, AK.

R-2201D Fort Greely, AK:

Boundaries - Beginning

at lat. 63°57'06"N., long. 145°30'15"W.;

thence clockwise along a 6.3-mile radius of Allen AAF:

to lat. 63°56'15"N., long. 145°31'19"W.; to lat. 63°54'54"N., long. 145°26'54"W.;

thence south along Granite Creek;

to lat. 63°49'33"N., long. 145°34'45"W.; to lat. 63°49'36"N., long. 145°40'45"W.;

thence north along the west bank of Jarvis Creek;

to lat. 63°52'14"N., long. 145°41'49"W.; to lat. 63°52'56"N., long. 145°42'52"W.; to lat. 63°55'01"N., long. 145°42'52"W.; to lat. 63°56'20"N., long. 145°39'26"W.; to lat. 63°57'11"N., long. 145°39'25"W.;

to the point of beginning.

Designated altitudes

6,000 feet MSL to 11,000 feet MSL.

Time of designation Controlling agency By NOTAM 4 hours in advance. FAA, Anchorage ARTCC.

Using agency

U.S. Army, AK (USARAK), Commanding General, JBER, AK.

Associated MOA Legal Description Changes

Yukon 1

Change Note (4) to "that portion wholly contained in R-2205B, R-2205C, R-2205D, R-2205E, R-2205G, R-2205H, R-2205J, and R-2205K when active."

Viper A

Add Note (3), "Excluding that portion wholly contained in R-2205A, R-2205B, and R-2205D when active."

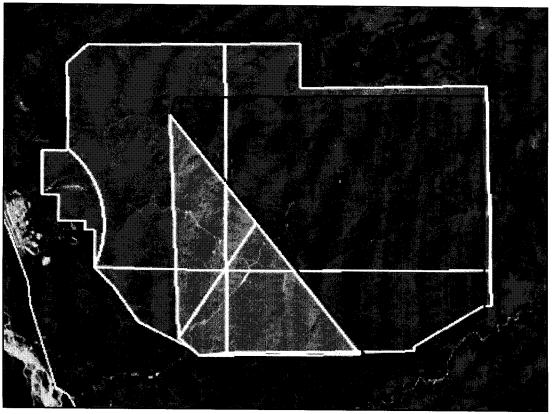
Viper B

Add Note, "Excluding that portion wholly contained in R-2205F, R-2205G, and R-2205J when active."

Expansion of Restricted Area DMPTR R-2205

The aeronautical proposal would modify airspace currently established as the CALFEX Controlled Firing Area (CFA) and the existing DMPTR R-2205 into an expanded restricted area.

Figure 4: Boundaries of Existing DMPTR R-2205, CALFEX CFA, and Proposed DMPTR R-2205 Reduced Boundaries



CALFEX CFA Boundaries

Existing DMPTR R-2205 Boundaries

Proposed DMPTR R-2205 Boundaries

The CALFEX CFA was established prior to 2012, and it was renewed in 2012, 2014, 2016, and 2018. Each renewal is for two years, and the current 2018 CFA was established on January 26, 2018. According to their plans, the CFA would remain in place until such a time as DMPTR R-2205 is established.

The FAA Proposed Action would align the outer restricted area boundary more precisely with the Army-controlled Yukon Training Area (YTA) lands to provide the expanded protective airspace

needed for encompassing YTA hazardous activities. This restricted airspace would have five subdivisions, and the subdivisions would be stratified in five layers. The DMPTR R-2205 expansion would extend from the surface up to flight level (FL) 310⁵.

Legal Descriptions DMPTR R-2205

R-2205A Yukon Training Area, AK:

Boundaries - Beginning at lat. 64°43'40"N., long. 146°59'27"W.;

clockwise along the 4.7-mile radius of Eielson AFB:

to lat. 64°37'50"N., long. 146°56'19"W.; to lat. 64°39'41"N., long. 146°56'23"W.; to lat. 64°39'41"N., long. 146°57'24"W.: to lat. 64°40'07"N., long. 146°57'24"W.; to lat. 64°40'07"N., long. 147°00'26"W.; to lat. 64°41'25"N., long. 147°00'26"W.; to lat. 64°41'25"N., long. 147°02'23"W.; to lat. 64°43'35"N., long. 147°02'23"W.; to lat. 64°43'35"N., long. 146°59'26"W.:

to the point of beginning.

Designated altitudes Surface to but not including 10,000 feet MSL.

Time of designation 0700-1900 local time Monday-Friday; other times by NOTAM two

and one-half hours in advance.

Controlling agency FAA, Fairbanks Approach Control.

Using agency U.S. Army, AK (USARAK), Commanding General, JBER, AK.

R-2205B Yukon Training Area, AK:

Boundaries - Beginning at lat. 64°48'47"N., long. 146°41'03"W.;

to lat. 64°37'40"N., long. 146°41'10"W.; to lat. 64°37'50"N., long. 146°56'19"W.;

counter-clockwise along the 4.7-mile radius of Eielson AFB;

to lat. 64°43'40"N., long. 146°59'27"W.; to lat. 64°47'54"N., long. 146°59'25"W.: to lat. 64°48'47"N., long. 146°57'08"W.;

to the point of beginning.

Designated altitudes

Surface to but not including 10,000 feet MSL.

0700-1900 local time Monday-Friday; other times by NOTAM two Time of designation

and one-half hours in advance.

Controlling agency

FAA, Fairbanks Approach Control.

Using agency

U.S. Army, AK (USARAK), Commanding General, JBER, AK.

⁵ FL 310 is 31,000 feet MSL

R-2205C Yukon Training Area, AK:

Boundaries - Beginning at lat. 64°46'36"N., long. 146°10'42"W.;

to lat. 64°37'33"N., long. 146°10'39"W.; to lat. 64°37'40"N., long. 146°41'10"W.;

to lat. 64°48'47"N., long. 146°41'03"W.; to lat. 64°48'47"N., long. 146°32'18"W.; to lat. 64°46'36"N., long. 146°32'18"W.;

to the point of beginning.

Designated altitudes Surface to but not including 10,000 feet MSL.

Time of designation 0700-1900 local time Monday-Friday; other times by NOTAM two

and one-half hours in advance.

Controlling agency FAA, Fairbanks Approach Control.

Using agency U.S. Army, AK (USARAK), Commanding General, JBER, AK.

R-2205D Yukon Training Area, AK:

Boundaries - Beginning at lat. 64°37'40"N., long. 146°41'10"W.;

to lat. 64°33'38"N., long. 146°41'13"W.; to lat. 64°33'38"N., long. 146°45'18"W.; to lat. 64°33'51"N., long. 146°45'18"W.; to lat. 64°35'09"N., long. 146°51'22"W.; to lat. 64°36'54"N., long. 146°54'14"W.; to lat. 64°37'50"N., long. 146°56'19"W.;

to the point of beginning.

Designated altitudes Surface to but not including 10,000 feet MSL.

Time of designation 0700-1900 local time Monday-Friday; other times by NOTAM two

and one-half hours in advance.

Controlling agency FAA, Fairbanks Approach Control.

Using agency U.S. Army, AK (USARAK), Commanding General, JBER, AK.

R-2205E Yukon Training Area, AK:

Boundaries - Beginning at lat. 64°37'33"N., long. 146°10'39"W.;

to lat. 64°35'48"N., long. 146°10'40"W.; to lat. 64°35'48"N., long. 146°11'38"W.; to lat. 64°33'51"N., long. 146°19'41"W.; to lat. 64°33'38"N., long. 146°19'41"W.; to lat. 64°33'38"N., long. 146°41'13"W.; to lat. 64°37'40"N., long. 146°41'10"W.;

to the point of beginning.

Designated altitudes Surface to but not including 10,000 feet MSL.

Time of designation 0700-1900 local time Monday-Friday; other times by NOTAM two

and one-half hours in advance.

Controlling agency FAA, Fairbanks Approach Control.

Using agency U.S. Army, AK (USARAK), Commanding General, JBER, AK.

R-2205F Yukon Training Area, AK:

Boundaries - Beginning at lat. 64°43'40"N., long. 146°59'27"W.;

clockwise along the 4.7-mile radius of Eielson AFB;

to lat. 64°37'50"N., long. 146°56'19"W.; to lat. 64°39'41"N., long. 146°56'23"W.; to lat. 64°39'41"N., long. 146°57'24"W.; to lat. 64°40'07"N., long. 146°57'24"W.; to lat. 64°40'07"N., long. 147°00'26"W.; to lat. 64°41'25"N., long. 147°00'26"W.;

to lat. 64°41'25"N., long. 147°02'23"W.; to lat. 64°43'35"N., long. 147°02'23"W.;

to lat. 64°43'35"N., long. 146°59'26"W.;

to the point of beginning.

Designated altitudes

10,000 feet MSL to FL 310.

0700-1900 local time Monday-Friday; other times by NOTAM two Time of designation

and one-half hours in advance.

Controlling agency

FAA, Fairbanks Approach Control.

Using agency

U.S. Army, AK (USARAK), Commanding General, JBER, AK.

R-2205G Yukon Training Area, AK:

Boundaries - Beginning at lat. 64°48'47"N., long. 146°41'03"W.;

to lat. 64°37'40"N., long. 146°41'10"W.; to lat. 64°37'50"N., long. 146°56'19"W.;

counter-clockwise along the 4.7-mile radius of Eielson AFB;

to lat. 64°43'40"N., long. 146°59'27"W.; to lat. 64°47'54"N., long. 146°59'25"W.; to lat. 64°48'47"N., long. 146°57'08"W.;

to the point of beginning.

Designated altitudes

10,000 feet MSL to FL 310.

Time of designation

0700-1900 local time Monday-Friday; other times by NOTAM two

and one-half hours in advance.

Controlling agency

FAA, Fairbanks Approach Control.

Using agency

U.S. Army, AK (USARAK), Commanding General, JBER, AK.

R-2205H Yukon Training Area, AK:

Boundaries - Beginning at lat. 64°46'36"N., long. 146°10'42"W.;

> to lat. 64°37'33"N., long. 146°10'39"W.; to lat. 64°37'40"N., long. 146°41'10"W.; to lat. 64°48'47"N., long. 146°41'03"W.; to lat. 64°48'47"N., long. 146°32'18"W.; to lat. 64°46'36"N., long. 146°32'18"W.;

to the point of beginning.

Designated altitudes

10,000 feet MSL to FL 310.

Time of designation

0700-1900 local time Monday-Friday; other times by NOTAM two

and one-half hours in advance.

FAA, Fairbanks Approach Control. Controlling agency

Using agency U.S. Army, AK (USARAK), Commanding General, JBER, AK.

R-2205J Yukon Training Area, AK:

Boundaries - Beginning at lat. 64°37'40"N., long. 146°41'10"W.;

to lat. 64°33'38"N., long. 146°41'13"W.; to lat. 64°33'38"N., long. 146°45'18"W.; to lat. 64°33'51"N., long. 146°45'18"W.;

to lat. 64°35'09"N., long. 146°51'22"W.; to lat. 64°36'54"N., long. 146°54'14"W.; to lat. 64°37'50"N., long. 146°56'19"W.;

to the point of beginning.

Designated altitudes 10,000 feet MSL to FL 310.

Time of designation 0700-1900 local time Monday-Friday; other times by NOTAM two

and one-half hours in advance.

Controlling agency FAA, Fairbanks Approach Control.

Using agency U.S. Army, AK (USARAK), Commanding General, JBER, AK.

R-2205K Yukon Training Area, AK:

Boundaries - Beginning at lat. 64°37'33"N., long. 146°10'39"W.;

to lat. 64°35'48"N., long. 146°10'40"W.; to lat. 64°35'48"N., long. 146°11'38"W.; to lat. 64°33'51"N., long. 146°19'41"W.; to lat. 64°33'38"N., long. 146°19'41"W.; to lat. 64°33'38"N., long. 146°41'13"W.; to lat. 64°37'40"N., long. 146°41'10"W.;

to the point of beginning.

Designated altitudes 10,000 feet MSL to FL 310.

Time of designation 0700-1900 local time Monday-Friday; other times by NOTAM two

and one-half hours in advance.

Controlling agency FAA, Fairbanks Approach Control.

Using agency U.S. Army, AK (USARAK), Commanding General, JBER, AK.

Associated MOA Legal Description Changes Buffalo MOA, AK

Adding note (5), "Excluding that portion wholly contained in R-2201B and R-2201D when active."

DELTA 3 MOA, AK

Adding note, "Excluding that portion wholly contained in R-2201A, R-2201B, R-2201C, and R-2201D when active."

DELTA 4 MOA, AK

Adding note, "Excluding that portion wholly contained in R-2201D when active."

5 JPARC EIS ALTERNATIVES

5.1 Battle Area Complex (BAX) Restricted Area R-2201 Addition

Two Alternatives and a No Action were evaluated in the JPARC EIS for the proposed establishment of a Restricted Area.

Alternative A

Alternative A would establish a new restricted area over the BAX and the CACTF in DTA East to provide the protective airspace required for hazardous flight activities and ordnance use in this training environment. The airspace structure proposed for the action alternative would convert the area currently established as the BAX Controlled Firing Area (CFA) to a restricted area. The proposed BAX R-2201⁶ would have a north and south component, named BAX R-2201A and BAX R-2201B. Both subdivisions would be stratified in three layers: from the surface up to but not including 6,000 feet MSL; 6,000 feet MSL up to but not including 18,000 feet MSL; and 18,000 feet MSL up to 22,000 feet MSL (FL220). However, BAX activities would occur in the lower-altitude layer (below 6,000 feet MSL) approximately 60 percent of the training year with use of the higher altitudes (up to FL220) being included approximately 40 percent of the training year. The estimated use of BAX R-2201 A and B would be 12 hours per training day from7:00 a.m. to 7:00 p.m. local time, Monday through Friday, and other times as required and stipulated by NOTAM.

Alternative B (JPARC EIS Preferred Alternative – not the same as the FAA Proposed Action) The proposed restricted area over the BAX and Combined Arms Collective Training Facility (CACTF) in DTA-East under this alternative would extend beyond the boundaries proposed for Alternative A in order to encompass the BAX and CACTF boundaries. This alternative was selected as the Preferred Alternative because it would provide the Army with additional restricted area expansion to meet both current and future needs for the expansion of the proposed new firing points, the protective surface danger zones (SDZs), range training impact areas, and targets required for this proposed action (Final EIS Figure 2-7).

The proposed BAX restricted area under this alternative would be subdivided into three sectors: BAX R-2201A (north), BAX R-2201B (center), and BAX R-2201C (south), as shown in Figure 2-7. These subdivisions would be stratified in three layers: from the surface up to but not including 6,000 feet MSL; 6,000 feet MSL up to but not including 15,000 feet MSL; and 15,000 feet MSL up to 22,000 feet MSL (FL220) with most BAX activities being conducted in the lower strata approximately 60 percent of the training year. The estimated use of BAX R-2201 A, B, and C would be 12 hours per training day up to approximately 238 days over the same daily timeframes described for Alternative A.

No Action

Under the No Action Alternative, the existing CFA would remain in place without establishing any restricted area over the BAX in DTA-East. The lack of this capability involving the BAX

⁶ The JPARC EIS depicts the proposed BAX restricted area as R-XXXX. It has since been named R-2201 by FAA.

FAA Adoption of the EIS for the Modernization and Enhancement of Ranges, Airspace and Training Ranges in the Joint Pacific Alaska Range Complex, and FAA Record of Decision for BAX R-2201 Establishment, DMPTR R-2205 Modification, and changes to legal descriptions for Viper A, Viper B, Yukon 1, Buffalo, Delta 3 and Delta 4 MOAs

would preclude realistic Joint, Interagency, Intergovernmental, and Multinational (JIIM) training with other forces critical to the JPARC vision, goals, and future concept of operations.

Alternatives Considered But Not Carried Forward

No other alternatives were carried forward in the EIS because it was determined that no other courses of action could provide for required training levels.

5.2 Expansion of Restricted Area DMPTR R-2205

One Alternative and a No Action were considered for the DMPTR R-2205 expansion.

Proposed Action (Preferred Alternative)

DMPTR R-2205 would be expanded to include the Moose Creek Range Complex (also referred to as the DMPTR) area within the YTA, as well as the airspace currently designated as the CALFEX north and south CFAs which overlie the YTA. The DMPTR R-2205 restricted area and subdivisions proposed for this proposed action are as depicted in Figure 2-9 in the Final EIS. The action aligns the outer restricted area boundary more precisely with the Army-controlled YTA lands to provide the expanded protective airspace needed for encompassing YTA hazardous activities. The proposed DMPTR R-2205C extends within the Eielson AFB Class D airspace; therefore, the scheduled use of this subdivision would be closely coordinated among the different controlling and scheduling functions so that DMPTR R-2205C activities do not conflict with Eielson air traffic operations. This restricted airspace would extend from the surface up to FL310.

The airspace could be active 12 hours per day, 7:00 a.m. to 7:00 p.m. local time, Monday through Friday, and other times, as required and stipulated by NOTAM. The USARAK Range Management Plan indicates an annual range use requirement for this range of 212 days, but future JIIM utilization plans would increase the annual use up to 300 days.

No Action

Under the No Action Alternative, there would be no expansion of the restricted area DMPTR R-2205, including over the DMPTR or the other proposed areas in the YTA. The lack of this capability would preclude realistic JIIM training with other forces critical to the JPARC vision, goals, and future concept of operations.

Alternatives Considered But Not Carried Forward

One other alternative was examined initially during the master planning and scoping process but was not carried forward for further consideration because it did not adequately meet the selection and requirements criteria regarding the purpose and need of this proposed action.

This alternative proposed subdividing the restricted area in DMPTR R-2205 into selectively segmented and standardized blocks around a generalized boundary of YTA. This boundary would not have included all the restricted area needed for full coverage in the southwest sector of YTA. It would also have resulted in requiring restricted area beyond existing military-controlled land north of the existing far northeast quadrant of the YTA boundary line.

6 ENVIRONMENTAL IMPACTS

The FAA has completed an independent review and evaluation of the Final EIS in accordance with the CEQ regulations (see 40 C.F.R. § 1506.3(c)), FAA Order 1050.1F, and FAA Order JO 7400.2M, "Procedures for Handling Airspace Matters," Appendix 8. FAA Order 1050.1F, Chapter 4, identifies the specific environmental impact categories the FAA considers in conducting environmental reviews under NEPA. In many cases, these categories overlap with the impact categories reflected in the Army and USAF's Final EIS (see Table 2.12-4 in the Final EIS).

The information below summarizes analyses in the Final EIS and written reevaluation and presents the results of the FAA's independent review and evaluation regarding the potential environmental impacts of the FAA Proposed Actions in each of the impact categories prescribed by FAA Order 1050.1F specific to the Army restricted area changes only.

Changes to the proposed restricted areas that occurred after the 2013 JPARC FEIS are described in Section 2.2 above.

6.1 Impact Categories Eliminated from Analysis

The FAA Proposed Action would not involve land acquisition, physical disturbance, or construction activities. The following NEPA impact categories were assessed and were considered to have potentially negligible or non-existent effects, and in accordance with CEQ regulations, did not warrant further analysis in the WR and EIS:

- Coastal Resources
- Farmlands
- Natural Resources and Energy Supply

6.2 Impact Categories Included in Analysis

The following summarizes the results of FAA's evaluation of the FAA's Proposed Action regarding the potential environmental impacts associated with the airspace reclassification.

In addition to using the analysis from the JPARC EIS, this section uses information from the *Hard Look and Clarification of Noise and Cumulative Impacts Analysis in Response to FAA Questions for Joint Pacific Alaska Range Complex March 2018* (Hard Look), as well as other relevant information as cited, to determine if the conclusions in the JPARC EIS remain valid.

The resources that had the potential to be affected by the alternatives are described below:

6.2.1 Air Quality

The FAA significant impact threshold for air quality occurs if the proposed action results in one or more of the six criteria pollutants exceeding the established National Ambient Air Quality Standards (NAAQS). Per the analysis below, the FAA has determined none of the six criteria pollutants will be exceeded and that the project will have less than significant impacts on air quality.

BAX R-2201

JPARC EIS Findings

The Proposed BAX R-2201 would allow sorties and munitions expenditures that are currently taking place in the DTA or the BAX CFA to take place in the proposed BAX restricted area. The DTA is located in the Denali Borough and the Southeast Fairbanks Census Area, which are both in attainment of all NAAQS. The area proposed for the addition of the BAX airspace is adjacent to the DTA in Southeast Fairbanks Census Area and which is in attainment of all NAAQS. Thus, the relocation of the sorties from DTA to BAX would not create a net increase in criteria pollutant or HAP emissions, or chaff use, and operation of the BAX under the Proposed Action would result in less-than-significant air quality impacts.

Changes Since the JPARC EIS Publication

The area of proposed BAX R-2201 has been reduced, as shown in Figure 1 above to address safety concerns raised as part of the NPRM. Even with the reduction in size, air quality impacts are expected to remain essentially the same for the following reasons:

- The reduction in size of the airspace boundary is not expected to concentrate impact levels for air quality, since the activities occurring on the ranges would still occur as under normal operations.
- The establishment of the restricted area in place of the BAX CFA is not expected to change the use of the bombing range within the proposed BAX R-2201.

DMPTR R-2205

JPARC EIS Findings

The proposed expansion of DMPTR R-2205 over the DMPTR would be located in Fairbanks North Star Borough (FNSB), Alaska. Portions of FNSB (Cities of Fairbanks and North Pole) are designated as nonattainment areas for the NAAQS for PM2.5 and as maintenance areas for the NAAQS for carbon monoxide⁷. FNSB is in attainment for all other NAAQS. The Proposed Action is outside the nonattainment or maintenance portions of the borough.

The area proposed for the expansion of the DMPTR R-2205 airspace is in attainment of all NAAQS, and the Proposed Action would not increase aircraft operations or munitions usage. Thus, there was no need to quantify emissions that would occur as a result of the proposed expansion of DMPTR R-2205. As there will be no net increase in criteria pollutant or HAP emissions, the operation of DMPTR R-2205 under the Proposed Action would result in less-than-significant air quality impacts.

Changes Since the JPARC EIS Publication

On April 28, 2017, EPA officially re-classified the Fairbanks North Star Borough (FNSB) area from "Moderate" to "Serious" nonattainment for the 2006 24-Hour PM2.5 or Fine Particulate Matter National Ambient Air Quality Standard.

⁷ JPARC Final EIS, Figure B-4 in Appendix B.

The minor changes to the lateral boundaries shown in Figure 2 were made to improve safety and to reduce aviation impacts to non-participating aircraft. The change to the lateral boundaries should not change how DMPTR R-2205 would be utilized because the lateral boundary changes, as described in Section 2.2 above, will have little to no impact on how the Army would utilize the proposed DMPTR R-2205. Since there will be little to no changes to the Army's operations, there will be little to no change to air quality emissions.

There will be no impacts to air quality as a result of changing the legal descriptions of the Viper A, Viper B, Yukon 1 MOAs to exclude those portions of the MOAs that overlap into the restricted areas when DMPTR R-2205 airspace is active at the same time.

Since the area was reduced, the proposed DMPTR R-2205 is still outside the nonattainment or maintenance portions of the borough. Therefore, the reduced area is not expected to result in impacts that are not already analyzed in the JPARC Final EIS.

Conclusion

The FAA has concluded the JPARC EIS determination that establishment of the proposed SUA will have no significant impacts on air quality remains valid.

6.2.2 Biological Resources

The FAA's significance threshold for Biological Resources, including fish, wildlife and plants, occurs when the US Fish and Wildlife Service or the National Marine Fishery Service determines that a proposed action would be likely to jeopardize the continued existence of a federally-listed threatened or endangered species, or would result in the destruction or adverse modification of federally-designated critical habitat in the affected area.

BAX R-2201

JPARC EIS Findings

The proposed project area for BAX occurs in DTA-East within the Tanana-Kuskokwim Lowlands ecoregion. An ecological survey of DTA reported vegetation cover as forest, scrub lands, tundra, barren/partially vegetated lands, human-disturbed lands, and water. Forest cover in DTA is diverse and includes pure stands of spruce, hardwoods, and spruce/hardwood mixtures.

Typical wildlife that use the BAX project area vicinity include moose, black bear, wolves, lynx, beavers, small mammals, and numerous waterfowl. Grizzly bear occur along the Delta River, with densities averaging about 10 to 12 bears per 1,000 square miles. Major migration routes for waterfowl have been mapped to the west and north of the project area associated with the Tanana and Delta River corridors.

Under the proposed project, no new ground-disturbing activities that differ substantially from activities already occurring within the BAX CFA are expected to occur. It is expected that evolving training needs will require identification of additional firing points and target areas for the inert ordnance. Effects to vegetation communities would continue to be localized. The vegetation classes present in DTA-East project area are widespread across the project region and are not

unique or considered sensitive communities, and are not associated with endangered or threatened species. Therefore, no significant adverse effects to vegetation communities are expected.

No new live-fire impact areas would be established, and no substantially different impact types would be introduced into the BAX area as a result of this project. It was assumed that the proposed activities, e.g., the addition of air-to-ground ordnance use, would not cause training to occur at different seasons or locations than current training activities. Impacts on wildlife would be greater if a change in season of human activity would occur that may adversely affect sensitive activities such as calving, nesting, breeding, migration, or critical winter range use. Because a variety of training already occurs within the BAX project area and a variety of wildlife species occur there, the resident and migratory species are exposed to, and likely habituated to, the types of disturbances that result from these types of activities. Wildlife habitats present within the project area are not associated with sensitive, endangered, or threatened species and are generally widely available within the project region.

Overall impacts to biological resources from the expansion of restricted airspace over the BAX in DTA East and from changes in the ordnance and aircraft use in the BAX project area are expected to be adverse but not significant.

Changes Since the JPARC EIS Publication

The reduction in size of the airspace boundary will reduce the land area that would be used for training, even though the activities occurring on the ranges would still occur as under normal operations. Plants located within the areas no longer encompassed by BAX R-2201 will no longer be impacted. Impacts to wildlife and habitat outside of smaller BAX R-2201 footprint will be reduced.

DMPTR R-2205

JPARC EIS Findings

The Proposed Action is in YTA within the Yukon-Tanana Uplands ecoregion. This ecoregion includes vegetation dominated by conifers and deciduous forests, and tussock and scrub bogs in valley bottoms. YTA contains important habitat for moose. A portion of YTA is used by caribou in winter as well. Waterfowl generally use migratory and stopover habitat that occurs off YTA to the west along the Tanana River and to the south along the Salcha River, but some habitat overlaps with YTA.

The FAA Proposed Action of expanding existing DMPTR R-2205 would primarily differ from current activities by enabling additional air-to-ground ordnance use in the expansion areas. These activities may have localized effects to the vegetation and wildlife present within YTA. It is assumed that allowable firing positions would change from within the existing DMPTR R-2205 to within the expanded DMPTR R-2205 at ranges specified in helicopter gunnery training regulations. However, no new impact areas would be created and no substantially different impact types would be introduced into the proposed DMPTR R-2205 expansion areas as a result of this project.

Effects to vegetation communities would be localized and as a whole would not be expected to be adversely affected. Wildlife habitats present within the project area are not associated with sensitive, endangered, or threatened species, and are generally widely available within the project region. Wildlife species in the area are generally exposed to and may be habituated to military activities. Also, the majority of the proposed expanded restricted areas overlies western YTA, which does not contain important wildlife breeding, wintering, or nesting habitats.

With standard restrictions on wildlife disturbance in place from past NEPA projects, sensitive wildlife at critical seasons, including moose, should be adequately protected on Army lands. Therefore, no significant effects to vegetation communities or wildlife populations are expected from the expansion the proposed DMPTR R-2205 within YTA. Overall impacts to biological resources from expansion of DMPTR R-2205 are expected to be adverse but not significant, and would be further reduced given implementation of mitigation and impact avoidance measures summarized below.

Changes Since the JPARC EIS Publication

The minor changes to the lateral boundaries shown in Figure 2 were made to improve safety and to reduce aviation impacts to non-participating aircraft. It is not expected that the change to the lateral boundaries will change how DMPTR R-2205 would be utilized as discussed in Section 2.2 above.

Since the lateral boundaries for DMPTR R-2205area was reduced, there is less area for biological impacts to occur. Therefore, the change in lateral boundaries will not result in impacts not already analyzed in the JPARC Final EIS.

Mitigation Measures

The Army will:

- Continue to monitor effects of military training including overflights on select wildlife species (especially herd animals, waterfowl, and raptors) and fisheries during critical seasons such as breeding, young-rearing, and migration. Use knowledge to develop and implement strategies to minimize disturbance to priority wildlife in existing and new SUAs and restricted airspace. This would help natural resources and range managers to coordinate training schedules that minimize impacts on wildlife populations.
- Continue pilot and soldier education awareness of sensitive wildlife species habitats and seasonal behaviors utilizing mapping and discuss procedures to reduce disturbances and to increase safety by reducing potential for aircraft strikes.
- Continue effort to conduct a detailed study to assess the impacts and effects of noise on wildlife, particularly key species such as caribou and bison, during critical life cycle seasons. Use information to include protection requirements within a noise management plan.

Conclusion

The JPARC EIS determined that establishment of the proposed SUA would have adverse but not significant impacts on biological resources, and impacts would be further reduced given implementation of proposed and ongoing mitigation measures. The changes to the lateral boundaries should further reduce impacts. Therefore, FAA has concluded the JPARC EIS

determination that establishment of the proposed SUA will have no significant impacts on biological resources remains valid.

6.2.3 Climate

Although there are no federal standards for aviation-related GHG emissions, it is well-established that GHG emissions can affect climate⁸. FAA Order 1050.1F establishes agency-wide policies and procedures for compliance with NEPA and the implementing regulations issued by the Council on Environmental Quality (40 CFR parts 1500-1508). The Council on Environmental Quality (CEQ) has affirmed the applicability of NEPA and the CEQ regulations to GHGs and climate. CEQ has also noted that "...it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions; as such direct linkage is difficult to isolate and to understand"⁹.

There are no FAA significance thresholds for aviation GHG emissions, nor has the FAA identified specific factors to consider in making a significance determination for GHG emissions. There are currently no accepted methods of determining significance applicable to aviation or commercial space launch projects given the small percentage of emissions they contribute. CEQ has noted that "it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions, as such direct linkage is difficult to isolate and to understand." Accordingly, it is not useful to attempt to determine the significance of such impacts.

BAX R-2201

JPARC EIS Findings

The Proposed Action would not create a net increase in criteria pollutant or hazardous air pollutant (HAP) emissions as discussed in the air quality section 6.2.1 above; therefore, there are no additional computed carbon dioxide equivalent or CO₂(e) emissions.

Changes Since the JPARC EIS Publication

Climate impacts are expected to remain the same, as the change to the airspace boundaries are not expected to change the use of the range. The reduction in size of the airspace boundary will not concentrate impact levels for these resource areas as the activities occurring on the ranges would still occur as under normal operations.

⁸ See Massachusetts v. E.P.A., 549 U.S. 497, 508-10,521-23 (2007).

⁹ Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions, CEQ (2010). http://ceq.hss.doe.gov/nepa/regs/Consideration_of_Effects_of_GHG_Draft_NEPA_Guidance_FINAL_02182010.pdf

¹⁰ CEQ (2010). Draft Guidance, Consideration of the Effects of Climate Change and Greenhouse Gas Emissions, 75 Federal Register 8046 (February 23, 2010) available at http://www.whitehouse.gov/sites/default/files/microsites/ceq/20100218-nepa-consideration-effects-ghg-draft-guidance.pdf

DMPTR R-2205

JPARC EIS Findings

The Proposed Action would not create a net increase in criteria pollutant or HAP emissions as discussed in the air quality section 6.2.1 above; therefore, there are no additional computed carbon dioxide equivalent or CO2(e) emissions.

Changes Since the JPARC EIS Publication

The minor changes to the lateral boundaries were made to improve safety and to reduce aviation impacts to non-participating aircraft. The reduced area is not expected to result in changes to how the Army will utilize the proposed DMPTR R-2205; therefore, there will be no new impacts resulting from the change in boundaries.

Conclusion

As discussed above, the FAA Proposed Actions would not increase GHG emissions compared to the no action alternative. Therefore, FAA determined the JPARC's conclusion that the FAA Proposed Actions will not introduce additional GHG emissions remains valid.

6.2.4 DEPARTMENT OF TRANSPORTATION ACT, SECTION 4(f)

Designation of airspace for military flight operations is exempt from section 4(f). The National Defense Authorization Act for Fiscal Year 1998 (Public Law 105-85) provided that "[n]o military flight operations (including a military training flight), or designation of airspace for such an operation, may be treated as a transportation program or project for purposes of section 303(c) of title 49, United States Code." In addition, The FAA 1050.1F Desk Reference, Exhibit 5-1, "exempts military flight operations and designation of airspace for such operations from Section 4(f)." Therefore, no further analysis was completed pursuant to Section 4(f).

6.2.5 HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION

The FAA has not established a specific significant impact threshold for hazardous materials, pollution prevention, and solid waste. However the FAA provides factors to consider in determining whether the action would have a significant impact. They are as follows: The action would have the potential to:

- Violate applicable Federal, state, tribal, or local laws or regulations regarding hazardous materials and/or solid waste management;
- Involve a contaminated site (including but not limited to a site listed on the National Priorities List). Contaminated sites may encompass relatively large areas.
- Produce an appreciably different quantity or type of hazardous waste;
- Generate an appreciably different quantity or type of solid waste or use a different method of collection or disposal and/or would exceed local capacity; or
- Adversely affect human health and the environment.

BAX R-2201

JPARC EIS Findings

The Proposed Action adds additional restricted area airspace designations to accommodate different types of ordnance use and provide for safety of civilian air traffic. The Army will establish new firing points in the northwestern portion of the proposed BAX R-2201, but the Proposed Action does not require any additional land that would potentially be subject to releases of hazardous materials and waste. There are no know hazardous materials or waste sites within the Proposed Action area.

The proposed training and exercises in this restricted area would use existing impact areas for the discharge of ordnance from aircraft and mobile artillery, while being controlled from the existing BAX. Therefore, no beneficial or adverse impacts would occur related to hazardous materials and waste.

Changes Since the JPARC EIS Publication

The area of proposed BAX R-2201 has been reduced, as shown in Figure 1 above to address safety concerns raised as part of the NPRM. Even with the reduction in size, hazardous materials and waste impacts are expected to remain essentially the same for the following reasons:

- The reduction in size of the airspace boundary is not expected to concentrate impact levels for these resource areas, since the activities occurring on the ranges would still occur as under normal operations.
- The establishment of the restricted area in place of the BAX CFA is not expected to change the use of the bombing range within the proposed BAX R-2201.

DMPTR R-2205

JPARC EIS Findings

The Proposed Action aligns the outer restricted area boundary more precisely with the government controlled YTA lands to provide the expanded protective airspace needed for encompassing YTA hazardous activities. The Proposed Action would utilize existing on-the-ground range structure and would involve no new construction in the realigned boundary area. In addition, other than surficial ground disturbance associated with ground maneuvers of vehicles, no excavations or ground disturbance would occur. There are no known contaminated sites located in the realigned boundary area. Therefore, no beneficial or adverse impacts would occur as a result of potentially encountering known or unknown contaminated soil.

There is the potential for munitions related hazardous materials impacts in association with the Proposed Action. Munitions fragments and residues would be generated as a result of live-fire action. However, training would use existing impact areas for the discharge of ordnance from aircraft within the proposed restricted area, such that no adverse munitions-related chemical release impacts on the environment would occur. These impact areas would be managed in accordance with current Federal, State of Alaska, Air Force, and Army regulations for the management, safe handling, and disposal of hazardous waste and materials associated with live and inert ordnance and unexploded ordnance, as the result of training exercises at DMPTR R-2205.

Changes Since the JPARC EIS Publication

The minor changes to the lateral boundaries for DMPTR R-2205 were made to improve aviation safety and reduce the burden on non-participating traffic. These changes do not change the size of the surface danger zone (SDZ), so it does not change where the live-fire action will take place. Therefore, hazardous materials and waste impacts are expected to be unchanged from the JPARC Final EIS analysis.

Conclusion

The FAA has concluded the JPARC EIS determination that establishment of the proposed SUA will have no significant impacts on hazardous materials, solid waste, and pollution prevention remains valid.

6.2.6 HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

The National Historic Preservation Act Section 106 (Section 106) regulations direct federal agencies to make reasonable and good faith efforts to identify historic properties in regards to a proposed action (36 CFR § 800.4(b)(1)). Federal agencies are to take into account the nature and extent of potential effects on historic properties, and the likely nature and location of historic properties within areas that may be affected. Compliance with Section 106 requires consultation with the State Historic Preservation Officer (SHPO) and/or the Tribal Historic Preservation Officer (THPO) if there is a potential adverse effect to historic properties within the Area of Potential Effect (APE) that are on or eligible for listing on the National Register of Historic Places (NRHP).

BAX R-2201

JPARC EIS Findings

There are 153 archaeological sites located under the entire proposed BAX R-2201. One hundred and thirty sites are located within the original boundaries of the BAX SDZ, and not all 130 sites are eligible for the NRHP. An additional 14 sites are known from the expanded BAX footprint in the northwest corner and southern end (JPARC FEIS, Appendix L, Pages L-91 to 92, Figure 8 and Table 1).

Although the archaeological sites are located under the proposed BAX R-2201, no significant impacts are anticipated to cultural resources from the establishment of BAX R-2201 and its training use. Flying operations are not conducted at a frequency to result in time-averaged noise levels exceeding 65 DNL, thus the JPARC EIS does not provide DNL or L_{dnmr}¹¹ noise exposure levels for BAX R-2201. It only provides noise levels generated by munitions firing. Noise levels

¹¹ Ldnmr stands for onset-rate adjusted day-night average sound level. Because of the irregular occurrences of aircraft operations, the number of average daily operations is determined by using the calendar month with the highest number of operations. The monthly average is denoted Ldnmr. Noise levels are calculated the same way for both DNL and Ldnmr. Ldnmr is interpreted by the same criteria as used for DNL.

FAA Adoption of the EIS for the Modernization and Enhancement of Ranges, Airspace and Training Ranges in the Joint Pacific Alaska Range Complex, and FAA Record of Decision for BAX R-2201 Establishment, DMPTR R-2205 Modification, and changes to legal descriptions for Viper A, Viper B, Yukon 1, Buffalo, Delta 3 and Delta 4 MOAs

exceeding 62 decibels CDNL would not extend beyond range boundaries and would not be sufficient to damage any archaeological or historic sites.

On February 7, 2012, the Army sent their consultation request letter to the Alaska SHPO. This letter concluded the undertaking of establishing restricted airspace over the BAX in DTA would have a finding of Historic Properties Adversely Affected and recommended amending the existing 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 (PA) to include the additional 14 sites, and any sites found during surveys of the previously un-surveyed areas bounded by the SDZ footprint. The Alaska SHPO concurred with the Army's finding of Adverse Effect on March 21, 2012 and agreed that an amendment to the PA was appropriate.

The 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 (Amended PA) was executed on September 19, 2012 as a stand-alone document.

Changes Since the JPARC EIS Publication

The Army has fulfilled the *Amended PA* compliance requirements. The Systemic Phase I archaeological survey was completed within the five year timeframe required by the *Amended PA*. All of the Stipulations of the *Amended PA* address adverse impacts resulting from ground impacts within the SDZ. The Army submitted their Final Report as required by the original PA and the *Amended PA* on June 19, 2013. On June 26, 2013, the AK SHPO found the Final Report to be satisfactory and in accordance with the PAs.

The size of the proposed BAX R-2201 has been reduced, but noise is not expected to change since the establishment of the restricted area in place of the BAX CFA is not expected to change the use of the bombing range within the proposed BAX R-2201. Therefore, since there are no changes that warrant additional consultation, the consultation conducted by the Army as described in the FEIS is still valid. FAA has determined that the original Section 106 consultation fulfills FAA's Section 106 consultation requirements.

DMPTR R-2205

JPARC EIS Findings

The Proposed DMPTR R-2205 expansion would extend 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 the area. Although the ground beneath the proposed restricted area has not been surveyed in its entirety, 10 archaeological sites are known to exist. No known traditional cultural properties are located in YTA.

No impacts are anticipated to cultural resources from the expansion of DMPTR R-2205 and its training use. Noise levels generated by munitions firing exceeding 62 dB CDNL¹² 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 the undertaking. Noise exposure levels generated during overflights that frequently use these airspace areas are expected to change from 60 to 61 dB L_{dnmr} (JPARC FEIS, Table 3-56).

On February 7, 2012, the Army sent their consultation request letter to the Alaska SHPO. This letter concluded the DMPTR R-2205 expansion undertaking would have a finding of No Historic Properties Adversely Affected. The Alaska SHPO concurred with the Army's finding of No Adverse Effect on March 21, 2012.

Changes Since the JPARC EIS Publication

Although the FAA Proposed Action has an updated noise exposure level of 65.3 dB L_{dnmr} (Hard Look Report), the area beneath the proposed DMPTR R-2205 is mostly YTA, which comprises several small and large-caliber weapons ranges. DMPTR R-2205 will be entirely over Department of Defense land, so there are no sensitive areas that will be impacted by noise.

The minor changes to the lateral boundaries that were made to improve safety and to reduce aviation impacts to non-participating aircraft will not change how the Army will utilize DMPTR R-2205. The Army training activities that take place within the CALFEX CFA would take place in the proposed DMPTR R-2205, so the establishment of the restricted area would not further change noise levels. Therefore, there are no changes that warrant additional consultation.

Conclusion

The FAA has determined the changes to the proposed BAX R-2201 and DMPTR R-2205 boundaries will not result in a change to the effects on cultural resources. Therefore, the FAA has concluded the consultation conducted by the Army as described in the JPARC FEIS is still valid, and FAA has determined that the original Section 106 consultation fulfills FAA's Section 106 consultation requirements.

6.2.7 LAND USE

The FAA has not established a specific significant impact threshold for land use; however, potential impacts to consider include disruption of communities, relocation, and induced socioeconomic impacts.

 $^{^{12}}$ C-weighted day-night average sound level. CDNL is specifically defined as a day-night average sound level computed for areas subject to impulsive noise such as sonic booms. Areas subjected to supersonic noise are typically also subjected to subsonic noise, which is assessed based on the L_{dnmr} metric (The JPARC EIS Appendix B.2 Noise.)

FAA Adoption of the EIS for the Modernization and Enhancement of Ranges, Airspace and Training Ranges in the Joint Pacific Alaska Range Complex, and FAA Record of Decision for BAX R-2201 Establishment, DMPTR R-2205 Modification, and changes to legal descriptions for Viper A, Viper B, Yukon 1, Buffalo, Delta 3 and Delta 4 MOAs

BAX R-2201

JPARC EIS Findings

All the land directly underlying the proposed restricted airspace within DTA-East is under military management. DTA-East is readily accessible to the public, containing over 150 miles of existing trails, some of which are overgrown and not drivable. Public use of DTA-East is essentially limited to hunting, fishing, and trapping for recreational, personal, and subsistence purposes. Limited timber harvesting is also permitted.

Recreation activities include:

- Moose, grizzly bear, caribou, and bison hunting is popular in DTA-East. There are limits on hunting, based on time, registration, or lottery, depending on the species.
- Popular furbearer species for trapping include lynx, beaver, pine marten, fox, and wolves. Trapping on DTA-East requires registration of traplines.
- Fishing is a popular recreational activity in DTA-East. However, there are no lakes located in DTA-East within the BAX project area. Jarvis Creek is located within the project area and contains grayling.
- Hiking opportunities exist within DTA-East. Public access for trail use is allowed with a valid Recreational Access Permit, but is subject to closures and to safety military security restrictions. Many recreational activities are seasonal and occur in brief bursts each year.

Public uses taking place on DTA-East would continue, but available time for access would become very limited. Hazardous activities would take place on about 3 to 5 days each week, during which time trails and roads would no longer be accessible. This would result in an adverse impact on the accessibility of trails and roads.

Recreational activities including hunting within the proposal area would be prohibited when the restricted area is active. Several locations within the project area traditionally used by the public during hunting season would no longer be available under this alternative. Hunters typically set up a camp and remain in the field for a weekend (or more) at a time. New restrictions would adversely affect hunters who traditionally camp and hunt within the DTA-East project area.

Access impacts of this proposal would have an adverse but less than significant impact on local recreation opportunities in the Delta Junction area. This impact is somewhat moderated considering a relatively small portion of local recreational activity uses, this area and other areas provide similar recreational hunting and fishing opportunities.

Coordinated scheduling could minimize conflicts in arranging adequate time on range for management functions. The Army will update information and maps available to the public on the U.S. Army Recreation Tracking System website to identify changes in public access restrictions for the expanded Anny training activities within U.S. Army Garrison Fort Wainwright (USAG-FWA) training areas.

Changes Since the JPARC EIS Publication

The area of proposed BAX R-2201 has been reduced to address safety concerns raised as part of the NPRM. Lands outside of the boundaries of BAX R-2201 not under the control of the Army will no longer be impacted, so the overall land use impacts will be less.

DMPTR R-2205

JPARC EIS Findings

All the land within the expanded DMPTR R-2205 footprint is withdrawn for military use. Military land in the proposal area is within YTA, and is used foremost for military purposes. Currently, the only public uses taking place on YTA are recreational, including personal use and subsistence hunting, gathering and trapping, and some timber harvesting and wood cutting. With increased use of YTA for hazardous operations (up to 300 days per year), time available for these public uses and range management tasks, including vegetation management, restorative projects, research, monitoring, and surveys, would be very limited. Coordinated scheduling could minimize conflicts in arranging adequate time on range for management functions. Considering the extent of forested land in surrounding areas available for commercial and personal fire wood cutting, the loss of this area as a source for these resources would have a minimal adverse impact.

Training frequency and closures within the project area would increase under the Proposed Action. The increase in training activities would lead to more frequent closures of roads and trails on YTA due to hazardous military activities. This may directly impact use of Manchu Road from Eielson AFB, Johnson Road from the Richardson Highway, and Salcha-Caribou Sled Road (a RS-2477 trail). Use of these routes is already limited by the military mission, but the proposal would further reduce their availability for gaining access onto YTA, and for through access to areas north of YTA. Impacts would be moderate, depending on the duration and timing of access closures.

The amount of recreation that occurs in the proposal area is relatively low and current restrictions on use are already in effect. The proposed training activities for DMPTR and YTA would greatly reduce the amount of time that training areas are available for public use and recreation. Even though training schedules are available on USARTRAK and the public can plan around them, substantially reduced access may have a minor adverse but not significant impact on recreation on YTA due to its relatively low use. Overall, the impact to land use, access, and recreation on YTA is moderate, but minor in the regional context.

Changes Since the JPARC EIS Publication

The minor changes to the lateral boundaries shown in Figure 2 were made to improve safety and to reduce aviation impacts to non-participating aircraft. The smaller area for the proposed DMPTR R-2205 would reduce the impacts to public use since less land will be part of DMPTR R-2205.

Conclusion

The JPARC FEIS concluded the proposed establishment of the proposed SUA would result in no significant impacts to land use since the Proposed Actions will not result in changes in land ownership; and public access will still be allowed, albeit with additional limitations. The changes to the lateral boundaries in the FAA Proposed Action will further reduce land use impacts.

Therefore, FAA has concluded the JPARC EIS determination that establishment of the proposed SUA will have no significant impacts on land use remains valid.

6.2.8 NOISE AND NOISE-COMPATIBLE LAND USE

The FAA's significance threshold for noise is whether the proposed action would increase noise by DNL 1.5 decibel (dB) or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB increase, when compared to the no action alternative for the same timeframe.

BAX R-2201

JPARC EIS Findings

Representative baseline conditions at the BAX include training of two Stryker Brigade Combat Teams (SBCT). Under baseline conditions where they train in the BAX CFA, Stryker vehicles fire approximately 3,200 rounds of inert 105-mm ammunition annually, and approximately 20 percent of this ammunition is fired after 10:00 p.m. Time averaged and peak noise levels reflecting baseline munitions training do not exceed 62 dB CDNL in areas outside of range boundaries. Munitions training noise is generated by the firing of rounds, but the rounds do not detonate on impact. Small-arms training is also conducted at the BAX. Noise generated during small-arms training is substantially less intense than heavy- weapons noise in the same area and was not modeled quantitatively as part of this analysis.

Ground and air vehicles are another source of noise in the BAX. Close air support (CAS) training is conducted by manned fixed- and rotary-wing aircraft as well as small unmanned aerial vehicles (UAVs). However, aviation assets are not currently permitted to deliver munitions on the BAX, and flying operations are not conducted at a frequency sufficient to result in time-averaged noise levels exceeding 65 dB DNL. The JPARC FEIS Table B-5 shows baseline noise levels at 55 for Buffalo MOA and 40 for the Delta MOAs. (The proposed BAX R-2201 is located within the boundaries of Buffalo, Delta 3 and Delta 4 MOAs.)

Aircraft operations in the BAX area may increase relative to baseline operations tempo, but time averaged noise levels in the proposed Restricted Area airspace would not be expected to exceed 65 dB L_{dnmr} . ¹³

¹³ Ldnmr stands for onset-rate adjusted day-night average sound level. Because of the irregular occurrences of aircraft operations, the number of average daily operations is determined by using the calendar month with the highest number of operations. The monthly average is denoted Ldnmr. Noise levels are calculated the same way for both DNL and Ldnmr. Ldnmr is interpreted by the same criteria as used for DNL.

FAA Adoption of the EIS for the Modernization and Enhancement of Ranges, Airspace and Training Ranges in the Joint Pacific Alaska Range Complex, and FAA Record of Decision for BAX R-2201 Establishment, DMPTR R-2205 Modification, and changes to legal descriptions for Viper A, Viper B, Yukon 1, Buffalo, Delta 3 and Delta 4 MOAs

Since the main activities in the proposed BAX R-2201 are small arms fire (50 caliber and below), STRYKER mobile gun systems, mortars, training land mines and training improvised explosive devices, the predominate noise will be from these activities and not overflights. ¹⁴

Changes Since the JPARC EIS Publication

The area of proposed BAX R-2201 has been reduced, as shown in Figure 1 above, to address safety concerns raised as part of the NPRM. Even with the reduction in size, noise impacts are expected to remain essentially the same for the following reasons:

- The reduction in size of the airspace boundary is not expected to concentrate impact levels for these resource areas, since the activities occurring on the ranges would not change as a result of the reduction to BAX R-2201's lateral boundaries.
- The establishment of the restricted area in place of the BAX CFA is not expected to change the use of the bombing range within the proposed BAX R-2201.
- A new noise analysis was done by the USAF as described in the Hard Look Report. The proposed BAX R-2201 was included in this analysis, and BAX R-2201's noise exposure level was calculated to be 53.2 dB L_{dnmr}. The Hard Look Report results are less than what was described in the JPARC FEIS, and are well below FAA's noise significance threshold of an increase of DNL 1.5 decibel (dB) or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level. Therefore, the establishment of BAX R-2201 will not result in significant noise impacts.

DMPTR R-2205

JPARC EIS Findings

The area beneath the proposed expanded DMPTR R-2205 is almost entirely over YTA, which comprises several active small- and large-caliber weapons ranges. The number of rounds of large-arms munitions fired annually in DMPTR R-2205 under baseline conditions is listed in the Final EIS, Table E-10. Under baseline conditions, large-caliber weapons firing at DMPTR result in noise levels exceeding 62 dB CDNL in undeveloped portions of Eielson AFB. The primary source of noise for this proposal is from weapons firing.

The total number and types of munitions fired into the Stuart Creek Impact Area would not be expected to change. However, the expansion of DMPTR R-2205 would allow a larger range of weapons types to be used at DMPTR. DMPTR is a non-dudded range and would continue to support training with inert munitions only under the Proposed Action. Noise levels exceeding 62 dB CDNL do not extend beyond the boundaries of DoD-owned land.

Viper A, Viper B, and Yukon 1 MOAs, and DMPTR R-2205 overlie the affected area and support combat training for several types of military aircraft. Noise levels generated during overflights by several aircraft that frequently use these airspace areas are listed below:

¹⁴ The noise analysis in the FEIS focused on the land-based activities from large weapons and munitions since they will be the main activities that would change the noise exposure level. Since FAA's noise metric focuses on aviation-generated noise, it is not the best metric to use to disclose potential noise impacts from the Proposed Action.

FAA Adoption of the EIS for the Modernization and Enhancement of Ranges, Airspace and Training Ranges in the Joint Pacific Alaska Range Complex, and FAA Record of Decision for BAX R-2201 Establishment, DMPTR R-2205 Modification, and changes to legal descriptions for Viper A, Viper B, Yukon 1, Buffalo, Delta 3 and Delta 4 MOAs

Table 1: Average Noise Levels in JPARC SUA

Special Use Airspace Name	Noise Level (dB L _{dnmr})
DMPTR R-2205	60
Viper A	47
Viper B MOA/ATCAA	47
Yukon 1 MOA/ATCAA	50

Excerpt from JPARC FEIS, Table B-5, page B-15

Note: Calculated using NRNMAP

Changes Since the JPARC EIS Publication

A new noise analysis was done by the USAF as described in the Hard Look Report. The results are shown in the table below:

Special Use Airspace Name	Noise Level (dB L _{dnmr})
DMPTR R-2205	65.3
Viper A/B	59.2
Yukon 1 MOA/ATCAA	53

Source: Hard Look Report, Table 1, Relevant Training Area

The proposed DMPTR R-2205 was included in this analysis, and DMPTR R-2205's noise exposure level was calculated to be 65.3 dB L_{dnmr} , and the. The Hard Look Report shows a noise exposure level of 64.9 before the time of use expansion, and the updated noise exposure level was calculated to be 65.3 dB L_{dnmr} (where the times of use of all the MOAs within JPARC have been extended to midnight). This change is based on USAF training, and is not related to how the Army will be using DMPTR R-2205.

Although the FAA Proposed Action will have a noise exposure level of 65.3 dB L_{dnmr}, the area beneath the proposed DMPTR R-2205 is mostly YTA, which comprises several small and large-caliber weapons ranges. DMPTR R-2205 will be over DoD land, so there are no sensitive areas that will be impacted by noise. In addition, minor changes to the lateral boundaries that were made to improve safety and to reduce aviation impacts to non-participating aircraft will not change how DMPTR R-2205 would be utilized; therefore the change in noise exposure is expected to be consistent with the 1 dB change in noise exposure reported in the Final EIS.

Conclusion

The FAA has determined the JPARC EIS determination that establishment of the proposed SUA will have no significant impacts on noise and noise compatible land use remains valid.

6.2.9 SOCIOECONOMICS, ENVIRONMENTAL JUSTICE, AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS

SOCIOECONOMIC IMPACTS

BAX R-2201

JPARC EIS Findings

The Proposed Action area is south of Delta Junction in the Southeast Fairbanks Census Area located in the Interior Region of Alaska. The majority of the population lives in the communities of Deltana, Tok, Delta Junction, and Big Delta. Key industries in the Southeast Fairbanks Census Area that include mining, recreation and tourism, subsistence activities, and civilian aviation. The largest source of employment in the census area was the government and government enterprises industry, which includes Federal, military, State, and local government.

There are many recreation and tourism areas in the Southeast Fairbanks Census Area. The recreational areas closest to the Proposed Action include the Delta Junction Bison Range Area, the Tanana Valley State Forest, the Delta River and the Tanana River. Civilian aviation contributes significantly to the local economy and is heavily relied upon for travel, safety, firefighting, recreation, hunting, mining, oil and gas development and supplies.

Changes to military airspace and underlying land to support hazardous zones associated with live weapons delivery would not directly affect non-military land and would not involve any ground-disturbing construction or changes to personnel. The Proposed Action would establish BAX R-2201 in the much of the area as the BAX CFA. Although there is no available data on the number of civilian general aviation flights that traverse the current BAX CFA, it is expected that the number of civilian flights traversing the area is low since there are no population centers in the BAX CFA. Therefore, potential impacts on civil aviation are not expected to adversely impact socioeconomic resources.

The increase in military activities at the BAX may decrease the amount of time public access is permitted. The proposed BAX R-2201 would be active for a maximum of 238 days at all times of the year. A restriction in recreational and public access could result in economic impacts. The economic impacts of a delay or restriction in access when the BAX is active cannot be quantified due to the many factors to be considered in estimating such impacts. However, based on a review of environmental consequences for other resources, potential for high or significant adverse impacts would be mitigated based on Army standard operating procedures, best management practices, and continuation and expansion of existing mitigation measures. Therefore, the potential for significant impacts on socioeconomic resources is anticipated to be low.

The communities of Healy Lake, Dot Lake, and Dry Creek are ranked as high in dependence on subsistence resources. The communities of Big Delta and Junction are ranked as low in dependence on subsistence resources. The area beneath the proposed BAX R-2201 is in the vicinity of two major highways and access to subsistence activities would not be heavily dependent on aircraft access. Therefore, potential impacts on civil aviation are not expected to adversely impact access to subsistence resources. Additionally, the area is currently exposed to low-level

overflights and noise associated with military aircraft. Therefore, these activities are not expected to adversely impact wildlife populations or the availability of the subsistence species.

The increase in military activities at the BAX may decrease the amount of time public access is permitted. For rural Alaska residents that regularly harvest subsistence resources within the public access areas of DTA (in which BAX is located), an increase in restrictions to public access could be an adverse impact. However, the nearby vicinity has large tracts of Federal land in which subsistence activities are permitted and do not have the same access restrictions as a military installation. Therefore, no significant impacts to subsistence activities are expected.

Changes Since the JPARC EIS Publication

The reduction in size of the airspace boundary will reduce the land area that would be used for training, even though the activities occurring on the ranges would still occur as under normal operations. Areas no longer encompassed by BAX R-2201 would no longer be impacted. Mining, recreation and tourism, and civilian aviation outside of smaller BAX R-2201 footprint will no longer be impacted. The smaller area for the proposed BAX R-2201 could improve socioeconomic impacts because more land would be available for recreation and hunting.

DMPTR R-2205

JPARC EIS Findings

The Proposed Action is located in the Interior Region of Alaska. The cities nearest to the area of the Proposed Action are Fairbanks and the city of North Pole, both less than 10 NM to the northwest of the Proposed Action. Key economic industries in the area that could be impacted by the Proposed Action include recreation and tourism activities and military activities associated with Eielson AFB.

The extent to which any VFR aircraft may occasionally operate within or near YTA for recreation, hunting, or other purposes is not known. However, the few scoping comments on this proposal suggest such flights are minimal and would be minimally affected by the proposed DMPTR R-2205 if active.

The economic impacts of any military or other civil aviation aircraft being delayed or diverted to any extent around the proposed airspace when active cannot be quantified due to the many factors to be considered in estimating such impacts. These factors include aircraft type and weight, type and number of engines, an aircraft's phase of flight and altitude at the time of a diversion, air traffic conditions, the additional time/distance incurred by any diversion, etc.

The Proposed Action is within a State-identified non-subsistence area; therefore, no subsistence activities or resources would take place within Proposed Action area.

The Army does provide opportunities for some subsistence harvesting on YTA and would continue to consult with subsistence parties as described in the Final EIS, Section 3.4.13.4. Recreational hunting and fishing would still be permitted and managed in the area, as described in the Land Use section above.

Changes Since the JPARC EIS Publication

The minor changes to the lateral boundaries shown in Figure 2 were made to improve safety and to reduce aviation impacts to non-participating aircraft. The smaller area for the proposed DMPTR R-2205 would reduce the socioeconomic impacts because more land will be available for recreation and hunting.

Conclusion

Given the information above, the FAA has concluded the JPARC EIS determination that the establishment of the proposed SUA will have no significant impacts on socioeconomics remains valid.

ENVIRONMENTAL JUSTICE AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS

The FAA significance threshold for Environmental Justice is when there is a disproportionately high and adverse human health or environmental effect on minority and low-income populations. The FAA significance threshold for Children's Environmental Health and Safety Risks occurs when there is a disproportionate health and safety risk to children.

JPARC EIS Findings

Implementation of the Proposed Actions would not adversely affect air quality resources within the study are for the two Proposed Actions, establishment of BAX R-2201 and modification of DMPTR R-2205. Additionally, the Proposed Actions would result in a less than significant noise impact to identified noise-sensitive receptors and to land use. Finally, and the Proposed Actions would have no significant socioeconomic impacts. Therefore, disproportionate impacts on minority, low income, and youth populations are not expected.

Changes Since the JPARC EIS Publication

Both FAA Actions have been reduced in size, which would reduce the impact to land use and socioeconomics. Impacts from air quality and noise are expected to remain essentially the same with the changes to the proposed restricted area boundaries. Consequently, there are no disproportionately high and adverse effects on minority or low-income populations, and children because the FAA Proposed Action has no significant impacts from noise, air quality, land use or socioeconomics.

Conclusion

Given the information above, the FAA has concluded the JPARC EIS determination that the establishment of the proposed SUA will have no significant impacts on environmental justice and children's environmental health and safety risks remains valid.

6.2.10 VISUAL EFFECTS

The FAA has not established a specific significant impact threshold for Light Emissions and Visual Resources/Visual Character.

BAX R-2201

The potential sources of light emissions and visual impacts are heavy and light infantry, armor, artillery, and aviation positioning and maneuver. The Army will establish new firing points in the northwestern portion of the proposed BAX R-2201, but the proposed training and exercises in this restricted area would use existing impact areas for the discharge of ordnance from aircraft and mobile artillery, while being controlled from the existing BAX. While new firing points maybe be established, training that would create light emissions and visual impacts will occur within boundaries that are very similar to the existing BAX CFA, so visual effects are expected to be similar to existing conditions.

The reduction in size of the airspace boundary described in Section 2.2 above reduces the land area that would be used for training, even though the activities occurring on the ranges would still occur as under normal operations. The CFA boundaries are similar to the revised boundaries of the smaller BAX R-2201 footprint as shown in Figure 3 above. Therefore, visual effects for the FAA Proposed Action will be similar to existing conditions, and the FAA Proposed Action will not create a new visual effects significant impact.

DMPTR R-2205

The potential sources of light emissions and visual impacts are artillery, ground-launched antitank guided missiles, and mortars. Training creating light emissions and visual impacts currently takes place in the existing DMPTR R-2205 and the CALFEX CFA.

The FAA Proposed Action of expanding existing DMPTR R-2205 would primarily differ from current activities by enabling additional air-to-ground ordnance use in the expansion areas, and would provide loitering airspace for helicopters and UAVs within controlled airspace in conjunction with training activities being conducted within the range impact areas.

There are no persons that reside within the proposed DMPTR R-2205 boundaries since the land is controlled by the Army. Therefore, the only visual effect impacts would be to persons outside of the proposed DMPTR R-2205 boundaries.

The 2010 census identified 166 persons within the Fairbanks North Star Bureau census block. They currently experience visual and light impacts from the training that currently takes place in the existing DMPTR R-2205 boundaries and the abutting CALFEX CFA. The Final EIS assumes that allowable firing positions would change from within the existing DMPTR R-2205 to within the expanded DMPTR R-2205 at ranges specified in helicopter gunnery training regulations. However, no new impact areas would be created, and no substantially different visual or light impact would be introduced into the proposed DMPTR R-2205 expansion areas as a result of this project. Some firing positions may move west, so the visual effects and light impacts may be more visible to persons west of the existing CALFEX CFA. Impacts from potentially moving firing areas are not expected to be significant since the impacts from the changes to training activities are not substantially different from existing conditions.

The minor changes to the lateral boundaries were made to improve safety and to reduce aviation impacts to non-participating aircraft. It is not expected that the change to the lateral boundaries will change how DMPTR R-2205 would be utilized as discussed in Section 2.2 above. Therefore,

impacts from the FAA Proposed Action are not expected to change as a result of changing the proposed DMPTR R-2205 boundaries.

Conclusion

The FAA has concluded the JPARC EIS determination that establishment of the proposed SUA will have no significant impacts on light emissions and visual impacts.

6.2.11 WATER RESOURCES

The FAA Proposed Actions do not include any actions that would encroach on a floodplain or a wetland, surface waters. There are no wild and scenic rivers within the vicinity of the FAA Proposed Actions.

The FAA has the following significance thresholds for the following applicable water resources:

- Surface waters: The action would: exceed water quality standards established by Federal, state, local, and tribal regulatory agencies; or if the action would contaminate public drinking water supply such that public health may be adversely affected.
- Groundwater: The action would: exceed groundwater quality standards established by Federal, state, local, and tribal regulatory agencies; or contaminate an aquifer used for public water supply such that public health may be adversely affected.

BAX R-2201

JPARC EIS Findings

The BAX is east of Jarvis Creek on the glacial outwash fan that formed where Jarvis Creek flows out of the end moraines of the Delta glaciations. Jarvis Creek is subject to overbank flooding mainly due to aufeis¹⁵-caused overflows. There are numerous shallow lakes and ponds within the BAX. The surface water quality of Jarvis Creek meets all State water quality standards.

The Proposed Action would accommodate different types of ordnance use and provide for the safety of civilian air traffic. The restricted area allows the Army to use munitions that leave low levels of propellant residues at the firing points. Therefore, there is a potential for adverse impacts to groundwater quality. With the Army's mitigation and management actions identified below, the potential adverse impacts would be reduced to not significant.

Changes Since the JPARC EIS Publication

The reduction in size of the airspace boundary will reduce the land area that would be used for training, even though the activities occurring on the ranges would still occur as under normal operations. Plants located within the areas no longer encompassed by BAX R-2201 will no longer be impacted. The lands outside of smaller BAX R-2201 footprint will not have new visual impacts.

¹⁵ A sheet-like mass of layered ice that forms from successive flows of ground water during freezing temperatures. Due to aufeis, large areas of ice can collapse and dam up a river's flow. When that dam finally releases, a catastrophic flood can occur downstream of the aufeis http://www.alaska.org/advice/aufeis-on-the-alaskan-rivers)

FAA Adoption of the EIS for the Modernization and Enhancement of Ranges, Airspace and Training Ranges in the Joint Pacific Alaska Range Complex, and FAA Record of Decision for BAX R-2201 Establishment, DMPTR R-2205 Modification, and changes to legal descriptions for Viper A, Viper B, Yukon 1, Buffalo, Delta 3 and Delta 4 MOAs

Mitigation

The Army has an existing program to identify possible munitions contamination at training areas on DTA-East. This program initiates the collection of baseline data to determine the location, extent, and potential migration of munitions contamination in soils, surface water, and groundwater.

DMPTR R-2205

JPARC EIS Findings

The Proposed Action involves the new expansion of restricted area over DMPTR R-2205 in YTA, including the existing DMPTR. The training would use existing impact areas for the discharge of ordnance from aircraft within the proposed restricted area, while being controlled from the existing DMPTR. The Proposed Action involves minimal increase in the disturbance of the land surface per existing baseline conditions through the use of ordnance in the existing CFAs; therefore, this action is expected to have minimal or negligible adverse impacts on water resources within the study area, and no further analysis is required.

Changes Since the JPARC EIS Publication

The minor changes to the lateral boundaries shown in Figure 2 were made to improve safety and to reduce aviation impacts to non-participating aircraft. It is not expected that the change to the lateral boundaries will change how DMPTR R-2205 would be utilized.

Since the lateral boundaries for DMPTR R-2205 area was reduced, there is less area for water resource impacts to occur. Therefore, the reduced area is not expected to result in impacts that not already analyzed in the JPARC Final EIS.

Conclusion

The FAA has concluded the JPARC EIS determination that establishment of the proposed SUA will have no significant impacts on water resources remains valid.

7 <u>CUMULATIVE IMPACTS</u>

Cumulative impacts result from incremental impacts of an action when combined with other past, present, and reasonably foreseeable actions (40 CFR 1508.7). Cumulative impacts can result from individually minor but collectively significant actions over a period of time (CEQ, 1997). Cumulative impacts would occur if incremental impacts of the FAA Proposed Action, added to the environmental impacts of past, present, and reasonably foreseeable similar actions, would result in an adverse effect to resources in the region.

The cumulative impacts analysis focuses on those resource areas that may be significantly impacted by the FAA Proposed Action, and/or those resource areas currently in poor or declining health or at risk even if FAA Proposed Action impacts would be relatively small. The resources that meet these criteria are: air quality; biological resources; hazardous materials, solid waste, and pollution prevention; historical, architectural, archaeological and cultural resources; land use; noise

and noise-compatible land use; socioeconomics and environmental justice/children's health and safety risks; and water resources

The JPARC EIS analyzed 29 military and 28 non-military past, present, and foreseeable future projects in the JPARC region of influence (For the list of past, present, and reasonably foreseeable projects, see Tables 4-2 and 4-3 in the JPARC FEIS, and Tables 7 and 8 in the *Hard Look* report). The only resource with potential for extra-regional cumulative impacts is air quality. The potential effects of proposed greenhouse gas (GHG) emissions are by nature global and cumulative impacts, as individual sources of GHG emissions are not large enough to have an appreciable effect on climate change. Therefore, an appreciable impact on global climate change would only occur when proposed GHG emissions combine with GHG emissions from other man-made activities on a global (extra-regional) scale.

Establishing multiple JPARC capabilities may intensify some training activity in restricted airspace overlying military land and may increase munitions expenditures at existing impact areas. However, none of the actions represents an additive increase in training missions.

Air Quality

Cumulative impacts on air quality would consist of the FAA Proposed Actions combined with any other past present, or future actions that would significantly affect air quality. As presented in the EIS for each FAA Proposed Action, emissions increases from the proposed activities would be well below applicable conformity and NEPA emission significance thresholds. Any concurrent emissions-generating action in the vicinity of proposed activities would potentially contribute to the ambient impact of these emissions. However, since the training activities are not changing, other some may change locations, the combination of FAA Proposed Actions and future project air quality impacts would not contribute towards an exceedance of any ambient air quality standards.

Regarding emissions of carbon monoxide and particulate matter 2.5 microns or less in diameter (PM_{2.5}), some proposed sortie-operations would occur close to and inside the carbon monoxide maintenance and PM_{2.5} nonattainment areas in Fairbanks North Star Borough (FNSB). Due to the large area of sortie-operations, ambient concentrations of these pollutants would be well diluted when transported to FNSB. Emissions of these pollutants from other future sources and projects in the region would occur far enough away from the FNSB nonattainment and maintenance areas that they would result in low increases in ambient carbon monoxide and PM_{2.5} levels. As a result, the combination of proposed sortie-operations emissions of carbon monoxide and PM_{2.5}, and future project air quality impacts would not contribute towards an exceedance of any ambient air quality standards for the PM_{2.5} nonattainment and carbon monoxide maintenance areas.

Air quality changes associated activities with past, present, and future projects in the region of the FAA Proposed Actions will mostly occur outside of the FNSB area and not cause cumulative effects contributing to regional air quality concerns, and all new proposed projects will undergo evaluation based on location and projected emissions.

Biological Resources

Cumulative direct impacts on biological resources may result from loss of habitat or impaired access to important life-cycle resources on a population scale for those projects that include substantial ground disturbing activities, especially if combined.

Several of the JPARC programmatic proposals call for construction of roads to enable all-season access within and to training areas, and several of the programmatic proposals call for construction of large-scale facilities in each of the training areas. Several of the non-military projects also call for construction of large-scale facilities. These projects, particularly those including road construction with the resulting habitat fragmentation, may have substantial cumulative direct and indirect impacts on vegetation and wildlife in the areas.

The combination of changes in seasonal troop access and intensification of training activity associated with JPARC proposals, coupled with recent increases in troop numbers and intensification of training in Donnelly Training Area (DTA), is likely to have adverse impacts on wildlife. However, the reduction in size of the BAX restricted area BAX R-2201 will reduce impacts to biological resources.

The cumulative impacts from multiple JPARC proposed projects and other projects within the area of influence are expected to be significant for several biological resources. DoD best management practices (BMP) and other mitigation programs have been developed, and have already been implemented in some places, to reduce adverse impacts. Mitigation measures include:

- BMPs for seasonal restrictions on removal of vegetation for construction and replacement thereof with native species would reduce adverse impacts,
- BMPs for scouting training areas for big game prior to performing training activities and halting such activities if big game are present.
- The military has programs to mitigate bird strikes to aircraft by identifying and avoiding locations where birds congregate year round, including during migrations. These programs also reduce the impact of sortie-operations on migratory birds in areas near rivers.
- The important habitat areas for future foreseeable projects should be included in project final design to avoid adverse impacts to the extent practicable.

While the cumulative impacts from multiple proposed projects within the area of influence are expected to be significant for several biological resources, the establishment of BAX R-2201 and modification of DMPTR R-2205 are not expected to contribute to the significant impacts because the training proposed for the restricted areas is already taking place in CFAs.

Hazardous Materials, Solid Waste, and Pollution Prevention

Permitting requirements for the use and management of hazardous materials, wastes, and petroleum products will apply to both military and non-military industrial-scale operations in the JPARC region of influence. With respect to programmatic actions involving new construction, cumulative regional construction could result in increased incidental spills of hazardous materials. Petroleum, oil, and lubricant products (POLs) would be used by equipment and vehicles involved

in construction. Compliance with permits requirements will minimize the potential for significant impacts from hazardous materials and wastes in the region over time.

With respect to munitions, there would be an increase in residual metals contamination in soil as a result of increased ordnance use throughout the cumulative ROI. However, residual metals concentrations would be reported to EPA as required, and ordnance use would comply with existing range SOPs and BMPs, which will minimize the potential for significant impacts from hazardous materials and wastes from munitions over time.

While the cumulative impacts from multiple proposed projects within the area of influence are expected to increase the use of hazardous materials, FAA's JPARC Actions will have no significant impact on hazardous materials, solid waste, and pollution prevention. Therefore, FAA's Actions will not contribute to cumulative impacts for hazardous materials, solid waste, and pollution prevention.

Historical, Architectural, Archaeological, and Cultural Resources

No construction would be associated with the JPARC definitive Proposed Actions. Thus, historic buildings and archaeological sites at the JPARC AFBs and Army Posts would not be impacted. Previous projects resulted in on-base construction, some of which affected historic architectural resources at Fort Wainwright and Fort Richardson. Implementation of JPARC programmatic actions involving widespread ground disturbance could have significant impacts on some locations. These proposals will undergo thorough investigation, consultation, and any mitigation necessary to reduce impacts.

The increase in subsonic and supersonic noise levels for the airspace units with the addition of the F-35A training would not be to such a degree to cause adverse effect to historic properties or known traditional cultural resources. Therefore, F-35A training would not contribute to as cumulative impacts to cultural resources.

Civil projects potentially result in direct impacts on archaeological resources, and Section 106 review has been undertaken on the projects. Any Federal projects are subject to compliance with NEPA and Section 106 of the NHPA with the result that adverse effects would be mitigated, reducing cumulative impacts that could occur.

While the cumulative impacts from multiple proposed projects within the area of influence either do not have significant impacts or are not expected to have significant impacts on cultural or historical properties, other projects within the area of influence are expected to create adverse impacts to cultural resources. The FAA has determined the changes to the proposed BAX R-2201 and DMPTR R-2205 boundaries will not result in a change to the effects on cultural resources. Therefore, the FAA has concluded the consultation conducted by the Army as described in the JPARC FEIS is still valid, and FAA has determined that the original Section 106 consultation fulfills FAA's Section 106 consultation requirements.

Land Use

The combination of JPARC proposals could expand the areas where military activities occur both in the air and on the surface. The proposed BAX R-2201 and DMPTR R-2205 are not expected to increase noise levels. Several other proposals would use restricted airspace where noise impacts from aircraft would primarily affect underlying military land, which serves uses that are not noise sensitive.

Several actions would increase (and expand the area underlying) restricted airspace for both hazardous and non-hazardous training. Cumulatively these would result in less time available for non-military uses (mostly hunting) on military land in the Fairbanks area from about 80 percent down to less than 50 percent available annually. This would have an adverse and potentially significant impact on recreation and hunting for the residents in the Fairbanks/Delta Junction area. The Army has reduced the size of their proposed are for BAX restricted area BAX R-2201, which mitigates some of the recreation and hunting impacts. The Army will continue to publish its training and area closures particularly during September to allow the public to make appropriate plans based on whether they will be able to access military lands.

Physical changes on military land from more ground-based activity for integrated training and ground maneuver training could alter vegetation and surface conditions. This disturbance could indirectly lead to changes in wildlife and their movement patterns, and changes in the appearance of the landscape. This could have potentially significant indirect impacts on the quality of hunting and recreation on military land with longer-term effects.

Foreseeable future proposals and development of the JPARC over time may further decrease the amount of time that public use can take place on military land. Impacts from future projects may affect a small percentage of the local population that preferentially hunt and recreate on military lands. This is a moderate impact for a few persons.

Future development and productive uses on Federal and State lands may impact physical and biological resources, and in some areas, may affect recreational opportunities and other land uses. Several non-DoD actions (recent past and ongoing) involve planning and the implementation of management priorities for Federal, State, and borough lands within the greater ROI of the JPARC. These will influence how and what development and use is preferred and the degree to which controls of any kind are used to manage future uses. The degree to which cumulative regional uses develop incompatibility and pressure on the natural environment could trigger a need for an east-central Alaska regional joint land use study (JLUS) in the future.

While the cumulative impacts from multiple proposed projects within the area of influence may contribute to land use changes, FAA's Proposed Actions are not expected to contribute to the adverse and significant impacts because the proposed restricted areas are over military controlled land, so no changes to land use are expected.

Noise and Noise-Compatible Land Use

Overall noise impacts presented in the EIS reflect cumulative impacts of the FAA Proposed Actions with ongoing or planned actions. Cumulative noise impacts would occur in areas where the definitive and programmatic JPARC proposed actions overlap, but would not be expected to be significant. Increases in late-night flying (after 10:00 p.m.) proposed under NJT would increase the subsonic noise level and munitions noise level (CDNL) in affected airspace areas by less than 1 dB L_{dnmr}. If this increase were to occur in addition to changes in noise level associated with the Fox 3/Paxon airspace modifications, minimal additional annoyance to persons beneath the airspace areas would be expected.

JPARC proposed actions that involve munitions use include BAX Restricted Airspace Expansion, Expansion of DMPTR R-2205, the Joint Air-Ground Integration Complex (JAGIC), and live fire of AIM-9 and AIM-120 missiles, which would not individually or cumulatively result in significant noise impacts. Implementation of these actions alone or in combination would not result in noise levels exceeding 62 dB CDNL in areas not owned by DoD. Peak noise levels would not increase in instances where two JPARC proposed actions occurred in the same area.

There are no known civilian or joint-DoD-civilian past, present, or reasonably foreseeable actions that would result in significant noise impacts in combination with the FAA Proposed Actions, although several non-DoD actions could result in increased noise levels. Future civilian projects proposed in long-term planning documents are not yet sufficiently well-defined to allow accurate prediction of the level of cumulative noise impacts when combined with the proposed actions.

FAA Actions, when combined with past, present, and future foreseeable actions, would result in no more than de minimis impacts.

Socioeconomics and Environmental Justice/Children's Health and Safety Risks

Socioeconomics

For BAX R-2201, the JPARC EIS concluded impacts to socioeconomic resources from the estimated low number of civil aviation flights are not expected to be adverse. The reduction in size of BAX R-2201 will likely reduce impacts to civil aviation and any associated socioeconomic impacts. The decrease in size of BAX R-2201 may also improve public accessibility. Employment and income could be substantially affected by changes in key industries. Civilian aviation in particular, is important to the economic well-being of many Alaskan residents and supports many other key industries. No significant socioeconomic impacts were anticipated from construction and additional personnel for the F-35A beddown. The F-35A EIS analysis indicates that impacts to population, employment, schools, housing and public and emergency services would be less than significant and occur only within the ROI at Eielson AFB and FNSB.

Major flying exercises (MFE) proposed within the ranges as a result of past, present, and future DoD actions are not expected to have a cumulative impact on civilian aviation, since it is assumed that the majority of civilian aviation pilots do not traverse the ranges and are accustomed to flight paths that generally avoid these areas. However, in areas outside the ranges, additional MFEs could

cause a more frequent restriction in civilian aviation and hence result in greater cumulative costs associated with rerouting or delays.

Other economic activity in the region could increase the demand for construction employment, particularly in the Matanuska-Susitna Borough/Anchorage area. An increase in the population and employment opportunities related to an increase in port traffic to the Matanuska-Susitna area could have a beneficial socioeconomic impact; however, a larger percentage of the population—i.e., people residing under the airspace of the Fox 3/MOA Expansion Proposed Action— could be exposed to adverse impacts.

A change in population that would create a greater need for civilian aviation could also have cumulative impacts, for more frequent and greater restrictions in airspace use would impact a greater percent of the population. Overall, an increase in economic activity associated with a specific project is typically temporary, lasting only for the duration of the construction period; however, the cumulative impacts of construction projects could create employment for the foreseeable future.

Range activities and restrictions of public access to areas in DTA could further restrict subsistence activities where they are currently permitted. However, there are areas in the vicinity of the DTA that can also provide subsistence resources and are more accessible than a military installation. Therefore, no significant restrictions of subsistence resources overall is expected from these cumulative actions.

No significant restrictions of subsistence resources are expected from the cumulative effects of the FAA Proposed Actions, other DoD actions, and non-DoD actions. The non-DoD actions are not expected to directly interact with the JPARC proposed actions in such a way as to restrict subsistence harvests or affect the distribution of subsistence resources.

No significant socioeconomic impacts are likely to occur in areas where the JPARC proposed actions overlap. Therefore, cumulative impacts from the FAA Proposed Actions and the past, present, and future projects would not result in significant cumulative socioeconomic impacts.

Environmental Justice/Children's Health and Safety Risks

Cumulative impacts from the FAA Proposed Actions and the past, present, and future projects would not result in significant cumulative air quality, noise, land use or socioeconomic impacts. Therefore, cumulative disproportionate impacts on minority, low income, and youth populations are not expected.

Water Resources

Weapons training involving explosive munitions could impact surface water and groundwater quality. However, preliminary data from water quality monitoring indicates that munitions residues are staying within the impact areas through surface water, ground water, windblown soils, or wildlife, and therefore any cumulative impacts from munitions are minimal.

Wetlands can be damaged through maneuver and weapons training and lost due to the construction of facilities, roads, and access routes. In addition, wetlands are sensitive to indirect changes in hydrology, soil composition, and vegetation attributable to development. Past military vehicle use was largely restricted to the winter because of the impracticality, mechanical difficulties, and potential wetlands damage from operating in other seasons. Roadway access and enhanced access to ground maneuver space (EGMS) could have negative impacts on wetlands in DTA, Yukon Training Area, and Tanana Flats Training Area. EGMS is programmatic, and the locations and footprints of the access roads have not been determined. However, building roads that can be accessed year-round requires filling and grading long linear corridors through the training areas. Because of the high cover of wetlands in the training areas, it would be difficult to avoid damaging or destroying wetlands. Vehicle maneuvering in the summer is substantially more destructive to vegetation and wetlands than it is in the winter. Additionally, wetlands would be lost during construction of the ISBs and the JAGIC. The FAA Proposed Actions in combination with other cumulative projects could result in a net loss in regional wetlands. USAG-FWA's policy is no net loss in wetlands and USAG-FWA's active management plans serve to continually repair and restore wetland resources. In addition, mitigation required by the COE as part of the wetland permit process would reduce these impacts. The FAA Proposed Actions do not include any activities that would encroach on a wetland; therefore, the FAA Proposed Actions would not contribute to cumulative impacts on wetlands.

Minor, short-term adverse impacts to water resources are expected from facilities construction at Eielson AFB. The F-35A beddown at Eielson AFB would not contribute to any cumulative long-term water resources impacts.

Based on current projections, there is little geographic overlap between JPARC projects and other DoD and nonmilitary actions, so potential for cumulative impacts on water resources is minimal. All large-scale projects involving activities and ground disturbance will need to comply with existing regulations and permitting and would implement BMPs and requisite mitigations as part of the regulatory approval process.

While the cumulative impacts from multiple proposed projects within the area of influence may contribute to water resources, FAA's Actions will not have any impacts on wetlands, floodplains and groundwater since FAA's actions are solely airspace-based.

8 PUBLIC INVOLVEMENT

NEPA Outreach

A Notice of Intent to prepare an EIS was published in the Federal Register (FR) on December 8, 2010 (75 FR 76444). Scoping meetings were held on the following dates and locations: Anchorage, January 13, 2011; Glennallen, January 18, 2011; Delta Junction, January 19, 2011; Fairbanks, January 20, 2011; Healy January 24, 2011; Talkeetna, January 25, 2011, and Wasilla January 26, 2011. A Notice of Availability for the Draft EIS was published in the Federal Register (FR) on March 30, 2012 (77 FR 19282).

The Draft EIS was originally available for general public and agency review, and was circulated for commenting between March 30, 2012 and June 7, 2012. The comment period was extended to July 9, 2012 (77 FR 33202). Public hearings were held on the following dates and locations: Anchorage, May 11, 2012; Palmer, May 14, 2012; Glermallen, May 15-16, 2012; Paxson, May 17, 2012; Delta Junction, May 18, 2012; Fairbanks, May 19, 2012; Healy, May 21, 2012; Talkeetna, AK May 22, 2012; and Wasilla, May 23, 2012 to receive public comments on the Draft EIS.

A total of 266 comment submittals were received during the DEIS comment period, including 1,361 independent comments in 23 topics. The topics of greatest concern included the proposed Fox 3 and Paxon Military Operations Areas (MOAs); the proposed lowering of the Special Use Airspace (SUA) to 500 feet above ground level (AGL); and related impacts on civil aviation, residents, recreation, hunting, wildlife, subsistence activities, the tourism industry, and commercial aviation access. Safety concerns mainly focus on airspace conflicts below 5,000 feet AGL, particularly the mix of high-speed aircraft and small, low-speed general aviation aircraft. Other airspace-specific concerns included proposed airspace restrictions over the Battle Area Complex and Isabel Pass.

The JPARC Final EIS contains comments and responses in Appendix N, Draft EIS Comments and Responses.

The potential environmental impacts of the alternatives are fully analyzed in the Army/USAF's Final EIS. The EPA published its Notice of Availability of the Final EIS in the Federal Register on June 28, 2013 (78 FR 38975).

Public participation in the NEPA process was conducted in accordance with FAA Order1050.1 and FAA Joint Order 7400.2, and the comments received as described above were considered and adequately addressed.

FAA Aeronautical Outreach

The Aeronautical Proposals for BAX R-2201 and DMPTR R-2205 were published in the Federal Register as Notices of Proposed Rulemaking. These NPRMs described the proposed expansion, and establishment of SUA to the JPARC SUA.

Proposed BAX R-2201

FAA issued a NPRM on March 6, 2017 for BAX R-2201 (82 FR 12529) to allow interested persons to comment on the establishment of BAX R-2201. Comments were received from 34 parties. Comments described concerns about the narrow width of the VFR route to and from the Isabel Pass and the need for sufficient clearance from the Donnelly Dome area. Due to all the safety-related comments received from the original BAX R-2201 NPRM, FAA determined that the proposed BAX R-2201 should be redesigned and the updated proposal would go through a Supplemental NPRM.

The Supplemental NPRM for BAX R-2201 was issued on January 11, 2018 (83 FR 1316), and two comments were received from two parties. One commenter raised re-routing issues regarding the Delta MOAs, and FAA determined the routing is minimally impacted by the proposed BAX R-2201. Aircraft Owners and Pilots Association (AOPA) was the second commenter. They asked

for the Final Rule to clarify the access allowed by air traffic, and for the Final Rule to be effective with the Sectional Chart cycle.

Proposed DMPTR R-2205

FAA issued a NPRM on March 6, 2017 for DMPTR R-2205 (82 FR 12526) to allow interested persons to comment on the expansion of DMPTR R-2205. Comments were received from 10 parties. Several commenters stated they had safety concerns, but they were not specific. AOPA commented that the modification of the airspace areas to improve General Aviation access to the Trans-Alaska Pipeline and VFR corridor along the Chena River would improve safety. The Alyeska Pipeline Service Company, the operating agent for the owners of the Trans-Alaska Pipeline (TAPS), requested the boundaries of DMPTR R-2205 be re-evaluated to allow for access for their required weekly infrastructure surveillance. Two other commenters thought the requested airspace was too large. Three commenters raised issues on BAX R-2201, which was outside the scope of the NPRM for DMPTR R-2205. The issues raised were similar to comments on the original NPRM for BAX R-2201.

FAA determined the potential exists for one or more of the subsections of DMPTR R-2205, and one or more of the MOAs to be active at the same time. To alleviate this situation, the FAA Proposed Action will amend the legal description of each. The proposed change to the legal descriptions for Viper A, Viper B, and Yukon 1 MOAs would add exclusionary language to the MOAs for when one or more of the subsections of BAX R-2201 is activated. Since this was not covered in the NPRM, FAA sent out the changes in a circularization dated May 9, 2019. No comments were received.

Public participation in the airspace rule making and circularization processes for the Special Use Airspace was conducted in accordance with FAA Order JO 7400.2, and the comments received concerning potential impacts on aviation were considered and adequately addressed.

9 INCORPORATED BY REFERENCE

The FAA has reviewed the following information:

- Environmental Impact Statement for the Modernization and Enhancement of Ranges, Airspace, and Training Areas in the Joint Pacific Alaska Range Complex in Alaska, June 2013
- Hard Look and Clarification of Noise And Cumulative Impacts Analysis In Response To FAA Questions for Joint Pacific Alaska Range Complex, Eleventh Air Force, March 2018.

10 DECISIONS AND ORDERS

10.1 Written Reevaluation

FAA has verified that there are no new activities or new information that warrants supplemental analysis for any of the environmental impact categories described above in Section 6

Environmental Impacts of the FAA Proposed Actions. Therefore, pursuant to FAA Order 1050.1F, paragraph 9-2, FAA has determined that no new supplemental EA or EIS is required because this WR indicates:

- 1. The FAA Proposed Actions conform to plans or projects for which the prior JPARC EIS and the combined Army and USAF Record of Decision analyzed. There are no substantial changes in the action that are relevant to environmental concerns.
- 2. Data and analyses contained in the 2013 JPARC EIS are still substantially valid and there are no significant new circumstances or information relevant to environmental concerns and bearing on the FAA Proposed Actions or its impacts.
- 3. Pertinent conditions and requirements of the prior approval have been, or will be, met in the current action.

10.2 Adoption

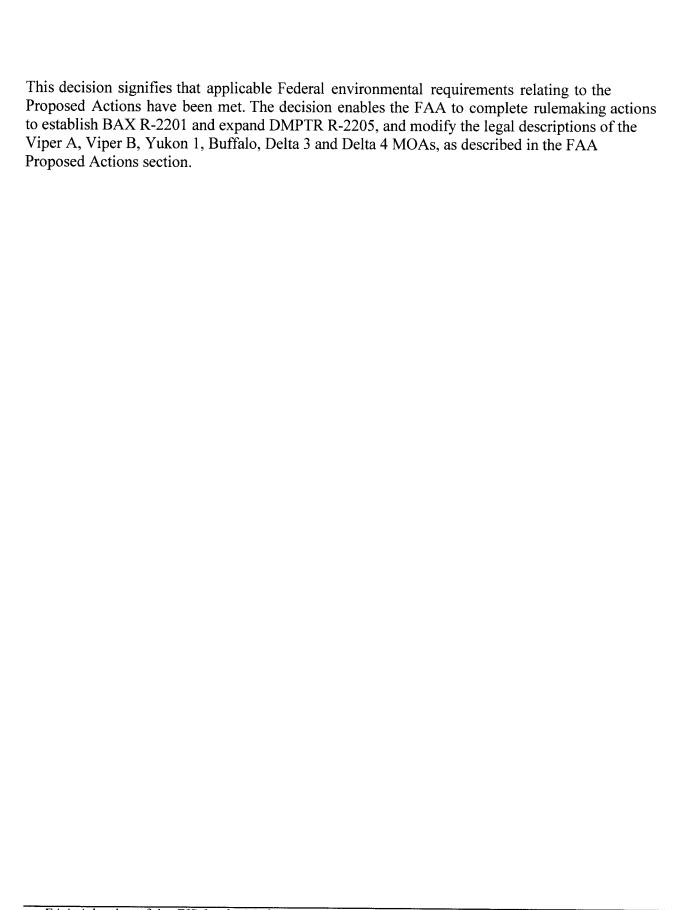
In accordance with FAA Order 1050.1F, paragraph 8-2, the FAA has conducted an independent evaluation and prepared this Record of Decision for the Army and USAF's Environmental Impact Statement for the Modernization and Enhancement of Ranges, Airspace, and Training Areas in the Joint Pacific Alaska Range Complex in Alaska, and its supporting documentation, as incorporated by reference, adequately assess and disclose the environmental impacts of the FAA Proposed Actions. As a cooperating agency, the FAA provided subject matter expertise and coordinated with the Navy during the environmental review process, including the preparation of the EIS. Based on its independent review and evaluation as described in Section 6 Environmental Impacts of the Proposed Action and Section 9.1 Written Reevaluation of this document, the FAA has determined that the Final EIS and its supporting documentation, as incorporated, adequately assess and disclose the environmental impacts of the FAA's Proposed Action.

Based on this evaluation, the FAA, as the Cooperating Agency, concludes that adoption of the portions specific to BAX R-2201 and the Expand DMPTR R-2205 of the Environmental Impact Statement for the Modernization and Enhancement of Ranges, Airspace, and Training Areas in the Joint Pacific Alaska Range Complex in Alaska, with incorporation of its supporting documentation, is authorized in accordance with 40 CFR Section 1506.3.

10.3 Record of Decision

After careful and thorough consideration of the facts contained herein, the undersigned finds that the Proposed federal Action is consistent with existing national environmental policies and objectives as set forth in Section 101(a) of the NEPA, as amended, and other applicable environmental requirements and will not significantly affect the quality of the human environment or otherwise include any condition requiring consultation pursuant to Section 102(2)(C) of NEPA.

The review included the purpose and need to be served by this project, the alternative means of achieving them, the environmental impacts of these alternatives, the mitigation necessary to preserve and enhance the human environment, and the response to public concerns. There will not be any disproportionately high and adverse human health or environmental effects from the implementation of the FAA Proposed Actions on minority and low-income populations. Nor will there be any impacts associated with the protection of children from environmental health and safety risks.



10.4 Decision

Public participation in the NEPA process was conducted in accordance with FAA Order1050.1 and FAA Joint Order 7400.2, and the comments received as described in the Public Involvement above were considered and adequately addressed.

The undersigned has carefully considered the FAA's statutory mandate under 49 U.S.C. 40103 to ensure the safe and efficient use of the national airspace system as well as the other aeronautical goals and objectives discussed in the JPARC Final EIS. The undersigned concurs that the FAA Proposed Actions provide the best airspace combination for meeting the needs stipulated in the JPARC Final EIS, and that all practicable means to avoid or minimize environmental harm have been adopted.

Accordingly, under the authority delegated to the undersigned by the Administrator of the Federal Aviation Administration, the undersigned approves and authorizes all necessary agency action to establish restricted area BAX R-2201 and expand restricted area DMPTR R-2205, as described in the FAA Proposed Actions.

Date: 07/29/2019

Approved: ________Rodger A. Dean, Manager

Airspace Policy Group Mission Support Services Air Traffic Organization

Federal Aviation Administration

Right of Appeal

This Written Re-Evaluation, Adoption, and Record of Decision constitutes a final order of the FAA Administrator and is subject to exclusive judicial review under 49 U.S.C. §46110 by the U.S. Circuit Court of Appeals for the District of Columbia or the U.S. Circuit Court of Appeals for the circuit in which the person contesting the decision resides or has its principal place of business. Any party having substantial interest in this order may apply for review of the decision by filing a petition for review in the appropriate U.S. Court of Appeals no later than 60 days after the date of this notice in accordance with the provisions of 49 U.S.C. §46110.