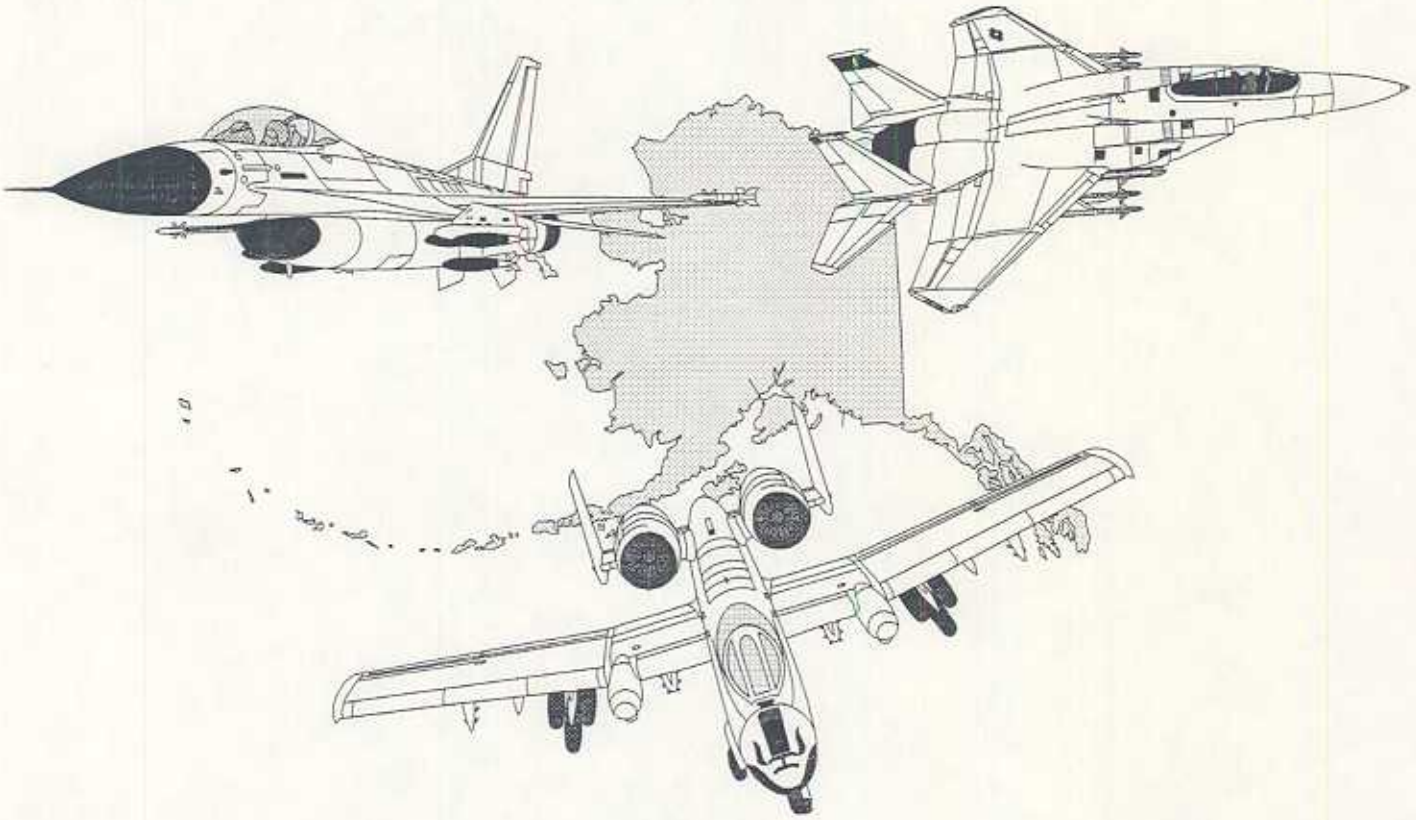
FINAL

Environmental Impact Statement

ALASKA MILITARY OPERATIONS AREAS



RECORD OF DECISION

April 1997

Department of the Air Force
11th Air Force
Elmendorf AFB, Alaska

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RECORD OF DECISION
ALASKA MILITARY OPERATIONS AREAS

1.0 Introduction

The Air Force has prepared an Environmental Impact Statement (EIS) evaluating the potential environmental effects of restructuring and using Special Use Airspace in Alaska in compliance with the National Environmental Policy Act (NEPA) and the Air Force Environmental Impact Analysis Process (EIAP). This Record of Decision (ROD) presents the Air Force decision made regarding this proposal. This decision has been made in consideration of the information contained in the Final EIS for the Alaska Military Operations Areas which was filed with the Environmental Protection Agency (EPA) and made available to the public by *Federal Register* announcement on September 8, 1995. To ensure the operational feasibility of the proposal, the Federal Aviation Administration (FAA) is acting as a cooperating agency in the preparation of this document. The FAA has final approval authority for any proposal to establish airspace, including Military Operations Areas (MOAs). A MOA is Special Use Airspace designated for nonhazardous military flight training activities such as air combat tactics, transition, formation training, and aerobatics. MOAs are depicted on various aviation charts so that pilots can be aware of their location and parameters. The MOAs considered in the EIS are located in the Northern Interior, Southern Interior, Southcentral, and Western Regions of Alaska.

Specifically, the Air Force proposes to:

- Create permanent MOAs in the geographic areas previously utilized for Temporary Military Operations Areas (TMOAs);
- Modify some existing permanent MOAs;
- Create some new permanent MOAs;
- Conduct supersonic aircraft operations in certain MOAs;
- Conduct routine flying training, joint/combined flying training, and Major Flying Exercises (MFEs) in certain MOAs; and
- Authorize use of chaff and flares for routine and MFE training in selected permanent MOAs in accordance with 11th Air Force directives for safe employment.

1.1 Background

Although the Alaska MOA structure has changed little since it was established in 1976, there have been considerable changes in the tasking, composition, numbers, capabilities, weapons systems, training programs, and airspace requirements of the aircraft assigned to Elmendorf and Eielson Air Force Bases (AFBs). The scope and complexity of Alaskan units' tasking has increased considerably with the focus of air operations now including support for more complex, world-wide contingency air operations. During the 1980s, F-15Cs replaced the F-4 aircraft at Elmendorf AFB and A-10s replaced the F-4s at Eielson AFB. In 1991, Elmendorf AFB gained an additional squadron of F-15Es, and Eielson AFB replaced most of its A-10s with a squadron of F-16Cs. The F-15s and F-16Cs brought new technological dimensions to Alaskan air forces, such as supersonic flight and Advanced Medium Range Air-to-Air Missile capabilities. Other units throughout Pacific Air Forces (PACAF) have undergone similar changes. These changes collectively required a revision of training programs to assure readiness. The existing MOA airspace no longer meets the requirements of these updated training programs and unduly hampers the ability of Alaskan units to meet their more diverse and demanding responsibilities.

With the closing of Clark Air Base in the Philippines in 1991, Alaska became the closest U.S.-controlled tactical flying training area available to PACAF forces and U.S. allies in the Pacific. Consequently, in addition to aircraft permanently assigned to Alaska, other aircraft deploy here to participate in joint/combined flying training and MFEs

like Cope Thunder. MFEs are designed to give aircrews their first taste of mock air warfare, ultimately increasing their chance of survival in real combat environments. The complex combat scenarios and advanced capabilities of many of the participating aircraft (e.g., supersonic flight) require large parcels of airspace. MFE airspace must also provide access to air-to-ground weapons ranges and use of ground-based threat radar and weapon system simulators. Exercise support missions such as air refueling, command and control, search and rescue, fighter escort, and electronic warfare further increase the amount of airspace required for MFEs. The existing MOA structure fails to fully support the Air Force's commitment to conduct MFEs and joint/combined training.

1.2 Purpose and Need for the Action

The purpose of the Proposed Action is to restructure and upgrade the MOAs in Alaska. The Proposed Action is needed to ensure that military aircrews are able to receive comprehensive and realistic tactical flying training in as safe an airspace as possible. This specific need stems from the larger need to secure the continued fighting efficiency and effectiveness of U.S. and allied air forces by providing airspace that allows these forces to train to U.S. Air Force (USAF) standards. The existing Alaska MOA structure imposes significant restrictions and inefficiencies on training opportunities, training realism, and the full use of all capabilities of the sophisticated aircraft/weapons systems presently based in Alaska. These restrictions significantly limit 11th Air Force (11 AF) units' abilities to more fully develop their combat capability in order to meet more demanding and complex wartime requirements.

The existing Alaska MOA structure lacks day-to-day, mutually accessible MOA airspace between Elmendorf and Eielson AFBs, precluding the accomplishment of significant routine training and, in particular, Dissimilar Air Combat Training (DACT) and Composite Force Training (CFT). DACT and CFT are critical air combat training building blocks that are readily available to other military aviation units throughout the continental United States. The lack of mutually accessible airspace suitable to conduct these critical categories of training unduly hampers Alaska-based units ability to achieve and maintain assigned combat readiness levels.

The existing Alaska MOA structure also lacks direct linkage between the MOAs and the Oklahoma (R-2202) and Blair Lakes (R-2211) air-to-ground weapons ranges and their associated ground based threat radar weapon system simulators. The isolation of these ranges from the MOA structure eliminates the ability to design realistic aircrew routine training scenarios that would integrate the most basic phases of a ground attack mission (ingress, attack, and egress). This lack of realism significantly restricts the efficient development of combat capability.

The tasking, composition, numbers, capabilities, and associated readiness training programs have changed. These changes have required Alaska-based units to further segment individual permanent MOAs, laterally and vertically, to accommodate simultaneous, de-conflicted use by separate flights of aircraft conducting independent training scenarios. This segmentation of individual MOAs often yields lateral and/or vertical airspace dimensions that are well below the standards specified in the *U.S. Air Force Airspace Master Plan* (1993). Increases in the scope and complexity of Alaska-based unit taskings further amplifies the negative impact of MOA segmentation on the ability to conduct realistic air combat training to achieve assigned readiness levels.

The existing Alaska MOA structure is inadequate to support the Air Force's commitment to conduct the most realistic and effective MFEs and joint/combined training possible. A number of TMOAs were negotiated and established and activated as required for each MFE. However, under Federal Aviation Administration (FAA) regulations, establishing and activating TMOAs takes a minimum of four months lead time to process through environmental and FAA channels. Furthermore, TMOAs are rarely charted on civilian or DoD aviation charts and are typically activated by the Notice to Airmen (NOTAM) system prior to each use. Converting previously utilized TMOAs to permanent MOAs, as proposed, would allow this airspace to be charted and make information pertaining to airspace boundaries readily available to all aviators.

The existing Alaska MOA structure possesses several characteristics that must be preserved when considering and evaluating the airspace restructuring alternatives. The MOAs must continue to be:

- accessible,
- geographically dispersed within the accessible region to deal with Alaska's often adverse weather,
- suitably sized,
- arrayed to minimize interference with civilian route structures, and
- equipped with a suitable degree of lateral segmentation to provide for flexible FAA management of civilian and military access and operations within these MOAs.

Establishing a single, regional-sized MOA would not permit the designation of varied floors or ceilings where necessary to avoid other FAA route/airspace structures or environmentally sensitive areas. A tailored array of contiguous, multiple MOAs possessing different floors/ceilings where necessary that achieves military readiness requirements, provides for civil aviation access, allows efficient FAA management of MOA access, and is sensitive to environmental concerns is the most prudent and balanced restructuring concept.

1.3 Description of Alternatives Considered

Four factors were considered in identifying reasonable alternatives that would fulfill the purpose and need for the proposal: 1) aircraft operational parameters, 2) existing facilities and assets, 3) existing airspace infrastructure, and 4) tactical flying training program and airspace standards. An alternative had to meet strict criteria associated with these factors in order to meet the training requirements of the Air Force in Alaska and be considered a reasonable alternative.

In evaluation of the proposal, the Air Force identified and studied five different alternatives, including a No Action Alternative, for restructuring and using Special Use Airspace in Alaska. Operational assumptions identified for each of the alternatives include similar routine flying training and MFE training characteristics as described in Sections 2.2 of the EIS. Detailed descriptions of each alternative is located in Section 2.4 of the EIS. For brevity, only the key elements specific to each of these alternatives are outlined below:

1.3.1 Proposed Action

The Proposed Action would:

- Convert seven previously utilized Temporary MOAs (TMOAs)—YUKON 3, YUKON 4, YUKON 1A, BUFLO, EIELSON A, EIELSON B, and FOX 1—to permanent MOAs—YUKON 3, YUKON 4, YUKON 5, YUKON 6, BUFFALO, BIRCH, EIELSON, and FOX, respectively;
- Modify five existing MOAs—YUKON 1, STONY B, NAKNEK 1, NAKNEK 2, and GALENA—(times of operation, vertical dimensions, and internal boundaries);
- Create two new permanent MOAs—CLEAR CREEK and FALCON;
- Continue to conduct supersonic aircraft operations in the currently authorized STONY A and B MOAs, SUSITNA MOA, YUKON 2 MOA, and YUKON 1 MOA (MFEs only); add supersonic aircraft operations in YUKON 1 MOA (routine and MFE training), YUKON 3, 4, and 5 MOAs, and FOX MOA;
- Standardize floors for supersonic operations in three existing MOAs that already have supersonic operations—YUKON 2, STONY A, and STONY B;
- Continue to conduct routine and joint/combined training with Alaska-based and deployed aircraft;
- Conduct up to six MFEs per year (not to exceed 60 days per year), but increase the number of authorized MFE aircraft from 85 to 100 and increase the number of MFE sorties from 150 to 200 per MFE-day using the Proposed Action MOA structure and existing air-to-ground weapons ranges; and

- Continue to use chaff and flares as in YUKON 1, YUKON 2, SUSITNA, STONY A, STONY B, NAKNEK 1, NAKNEK 2, and GALENA MOAs, and authorize use of chaff and flares for routine and MFE training in all new permanent MOAs in accordance with current 11th Air Force directives.

Airspace associated with the Proposed Action would overlie an estimated 63,420 square miles.

1.3.2 No Action Alternative

The No Action Alternative would maintain the status quo for routine training and MFEs, as follows:

- Continue to apply for activation of some or all of the previously utilized TMOAs—YUKON 3, YUKON 4, YUKON 1A, FOX 1, FOX 2, STONY C, BUFLO, EIELSON A, and EIELSON B—up to six times per year to provide airspace for conducting effective and realistic MFEs;
- Times of operation, vertical dimensions, and internal boundaries of all permanent MOAs—YUKON 1, YUKON 2, SUSITNA, STONY A, STONY B, NAKNEK 1, NAKNEK 2, and GALENA—would remain the same;
- Continue to conduct supersonic aircraft operations in YUKON 1 (MFE only), YUKON 2, SUSITNA, STONY A, and STONY B MOAs;
- Continue to conduct routine and joint/combined training with Alaska-based and deployed aircraft; and
- Conduct up to six MFEs per year (not to exceed 60 days per year) involving as many as 85 aircraft in a maximum of 150 sorties per MFE-day using existing MOAs and approved TMOAs and air-to-ground weapons ranges; and
- Continue to use chaff and flares during routine and MFE training in permanent MOAs in accordance with current 11th Air Force directives.

The No Action Alternative provides the baseline for comparison among the alternatives. It reflects the actions the Air Force currently takes, and would continue to take in the event neither the Proposed Action nor any of its alternatives were implemented, to ensure the conduct of effective routine training and MFEs. Because the No Action Alternative provides the baseline for comparison, tables presenting all of the alternatives list the No Action Alternative first. The No Action Alternative would involve about 70,970 square miles.

1.3.3 Alternative A (No CLEAR CREEK MOA Alternative)

Alternative A (the No CLEAR CREEK MOA Alternative) was developed based on public response received during the scoping process that suggested the Air Force evaluate an alternative that did not include the CLEAR CREEK MOA. Alternative A is included because it satisfies the mandatory criteria established by 11th Air Force to identify reasonable alternatives, although it provides less than optimal access to the Blair Lakes range (R-2211). Specifically, Alternative A would:

- Be the same as the Proposed Action, except that only one new MOA would be established, FALCON. CLEAR CREEK MOA would not be established. Aircraft training operations planned for the CLEAR CREEK MOA under the Proposed Action would be conducted instead in the proposed BIRCH and EIELSON MOAs.

Alternative A would encompass approximately 63,020 square miles.

1.3.4 Alternative B (TANANA MOA Alternative)

This alternative (the TANANA MOA Alternative) was developed in response to public comments received during scoping concerning other possible locations for MOAs. Following scoping, the 11th Air Force applied the mandatory criteria used to formulate and evaluate the alternatives to scrutinize every alternative suggested during

scoping. Alternative B was found to satisfy these criteria and is, therefore, included. Specifically, Alternative B would:

- Convert six previously utilized TMOAs—YUKON 3, YUKON 1A, FOX 1, BUFLO, EIELSON A, and EIELSON B—to permanent MOAs—YUKON 3, YUKON 6, FOX, BUFFALO, BIRCH, and EIELSON, respectively;
- Modify five existing MOAs—YUKON 1, STONY B, NAKNEK 1, NAKNEK 2, and GALENA—(times of operation, vertical dimensions, and internal boundaries);
- Create three new permanent MOAs—CLEAR CREEK, FALCON, and TANANA;
- Continue to conduct supersonic aircraft operations in the currently authorized STONY A and B MOAs, SUSITNA MOA, YUKON 2 MOA, and YUKON 1 MOA (MFEs only); add supersonic aircraft operations in YUKON 1 MOA (routine and MFE training), YUKON 3 MOA, and FOX MOA;
- Standardize floors for supersonic operations in three existing MOAs that already have supersonic operations—YUKON 2, STONY A, and STONY B;
- Continue to conduct routine and joint/combined training with Alaska-based and deployed aircraft;
- Conduct up to six MFEs per year (not to exceed 60 days per year), but increase the number of authorized MFE aircraft from 85 to 100 and increase the number of MFE sorties from 150 to 200 per MFE-day using the Alternative B MOA structure and existing air-to-ground weapons ranges; and
- Continue to use chaff and flares in YUKON 1, YUKON 2, SUSITNA, STONY A, STONY B, NAKNEK 1, NAKNEK 2, and GALENA MOAs, and authorize use of chaff and flares for routine and MFE training in all new permanent MOAs in accordance with current 11th Air Force directives.

Alternative B would overlie about 62,200 square miles.

1.3.5 Alternative A - Modified (Preferred Alternative)

This alternative was developed in response to comments received on the Draft EIS. After the comment period ended, the 11th Air Force contemplated the suggestions made for modifying the Proposed and Alternative Actions analyzed in the Draft EIS using the mandatory criteria outlined in the EIS, section 2.1 and Appendix N. Alternative A—Modified satisfied the mandatory criteria, although with less than optimum utility for training purposes in some cases. Specifically, this alternative would:

- Convert seven previously utilized TMOAs—YUKON 3, YUKON 4, YUKON 1A, BUFLO, EIELSON A, EIELSON B, and FOX 1—to permanent MOAs—YUKON 3 (A, B, and High), YUKON 4, YUKON 5, YUKON 6, BUFFALO, BIRCH, EIELSON, and FOX, respectively;
- Modify five existing MOAs—YUKON 1, STONY B, NAKNEK 1, NAKNEK 2, and GALENA—(times of operation, vertical dimensions, and internal boundaries);
- Create one new permanent MOA—FALCON;
- Modify the external boundaries of STONY A and NAKNEK 2 (existing permanent MOAs) and BIRCH and FOX (previously utilized TMOAs proposed for conversion to permanent), making each of them smaller in total area;
- Modify the proposed FOX and YUKON 5 MOAs by raising the floors to 5,000 feet AGL, the proposed YUKON 3B MOA by raising the floor to 2,000 feet AGL, and the proposed BIRCH and FALCON MOAs by raising the floors to 500 feet AGL;
- Continue to conduct supersonic aircraft operations in the currently authorized STONY A and B MOAs, SUSITNA MOA, YUKON 2 MOA, and YUKON 1 MOA (MFEs only); add supersonic aircraft operations in YUKON 1 MOA (routine and MFE training), YUKON 3 (High), 4, and 5 MOAs, and FOX MOA;
- Authorize supersonic operations in selected existing or new MOAs down to 5,000 feet AGL or 12,000 feet MSL, whichever is higher, as compared to 5,000 feet AGL under the Proposed Action;

- Continue to conduct routine and joint/combined training with Alaska-based and deployed aircraft;
- Conduct up to six MFEs per year (not to exceed 60 days per year), but increase the number of authorized MFE aircraft from 85 to 100 and increase the number of MFE sorties from 150 to 200 per MFE-day using the Alternative A—Modified MOA structure and existing air-to-ground weapons ranges;
- **Limit use of YUKON 5 MOAs to MFEs only; and**
- Continue to use chaff and flares in YUKON 1, YUKON 2, SUSITNA, STONY A, STONY B, NAKNEK 1, NAKNEK 2, and GALENA MOAs, and authorize use of chaff and flares for routine and MFE training in all new permanent MOAs except FALCON MOA in accordance with current 11th Air Force directives.

This alternative would encompass roughly 60,780 square miles.

Table 1 summarizes the average daily aircraft activity by MOA for each alternative. The term "routine training day" refers to a day during which only routine flying training is conducted. The term "MFE training day" refers to a day during which MFEs and routine flying training are conducted. MOA aircraft activity data are based on the average of 240 training days per year. Figures in Table 1 depict the maximum anticipated average number of times an aircraft conducting routine or MFE flying training would "pass" through a MOA on a routine or MFE training day. Table 2 through Table 5 present a description of airspace parameters for each of the alternatives.

Table 1 Average Daily Aircraft Operation by MOA for Each Alternative

MOA (TMOA)	No Action Alternative (TMOA)		Proposed Action		Alternative A		Alternative B		Alternative A—Modified	
	Routine training day	MFE training day[2]	Routine training day	MFE training day[2]	Routine training day	MFE training day[2]	Routine training day	MFE training day[2]	Routine training day	MFE training day[2]
NORTHERN INTERIOR REGION										
YUKON 1	11	149	18	206	PA[3]	PA	PA	PA	PA	PA
YUKON 2	14	152	12	201	PA	PA	PA	PA	PA	PA
YUKON 3 (YUKON 3)	N/A[4]	119	8	166	PA	PA	PA	PA	PA	PA
YUKON 4 (YUKON 3)	N/A	N/A	7	164	PA	PA	N/A	N/A	PA	PA
YUKON 5 (YUKON 4)	N/A	132	<1	170	PA	PA	N/A	N/A	N/A	PA
YUKON 6 (YUKON 1A)	N/A	70	14	107	PA	PA	PA	PA	PA	PA
SOUTHERN INTERIOR REGION										
BUFFALO (BUFLO)	N/A	140	12	86	PA	PA	PA	PA	PA	PA
BIRCH (EIELSON A)	N/A	140	14	145	17	152	PA	PA	17	152
EIELSON (EIELSON B)	N/A	140	11	105	13	111	PA	PA	13	111
FALCON	N/A	N/A	5	13	PA	PA	PA	PA	PA	PA
CLEAR CREEK	N/A	N/A	5	13	N/A	N/A	PA	PA	N/A	N/A
SOUTHCENTRAL REGION										
FOX (FOX 1)	N/A	50	16	80	PA	PA	PA	PA	PA	PA
TANANA (FOX 2)	N/A	50	N/A	N/A	N/A	N/A	8	164	N/A	N/A
SUSITNA	8	7	3	3	PA	PA	PA	PA	PA	PA
WESTERN REGION[2,5]										
NAKNEK 1	7	6	5	4	PA	PA	PA	PA	PA	PA
NAKNEK 2	4	4	3	3	PA	PA	PA	PA	PA	PA
STONY A[5]	18	23	17	23	PA	PA	PA	PA	PA	PA
STONY B[5]	8	13	7	13	PA	PA	PA	PA	PA	PA
(STONY C)[5]	N/A	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
GALENA	<1	<1	<1	<1	PA	PA	PA	PA	PA	PA

Source: see the EIS, Appendix E, Distribution of MOA Sorties worksheets. Fractions have been rounded up to the next highest whole number; where operations in a MOA were determined to be less than 1 per day, this has been indicated by "<1."

Table 2 NORTHERN INTERIOR REGION MOAs

MOA SPECIFICATION	NO ACTION ALTERNATIVE (MOAs / TMOAs)	PROPOSED ACTION	ALTERNATIVE A (No CLEAR CREEK MOA ALTERNATIVE)	ALTERNATIVE B (TANANA MOA ALTERNATIVE)	ALTERNATIVE A—MODIFIED
Permanent YUKON 1	**Permanent YUKON 1**	**Permanent YUKON 1**	**Permanent YUKON 1**	**Permanent YUKON 1**	**Permanent YUKON 1**
Altitudes	Surface to 17,999 ft MSL.	100 ft AGL to 17,999 ft MSL.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Lateral Dimensions[1]	Average 90 NM by 50 NM.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Published Times of Use	8:00 a.m. - 6:00 p.m., Monday - Friday; other times by NOTAM.[2]	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Supersonic	Authorized for MFE training only down to 5,000 ft AGL or 10,000 ft MSL, whichever is higher.	5,000 ft AGL or higher for routine and MFE training.	Same as Proposed Action.	Same as Proposed Action.	5,000 ft AGL or 12,000 ft MSL, whichever is higher, for routine and MFE training.
Training Operations	Conduct routine and MFE training operations.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Permanent YUKON 2	**Permanent YUKON 2**	**Permanent YUKON 2**	**Permanent YUKON 2**	**Permanent YUKON 2**	**Permanent YUKON 2**
Altitudes	100 ft AGL to 17,999 ft MSL.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Lateral Dimensions[1]	Average 80 NM by 60 NM.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Published Times of Use	8:00 a.m. - 6:00 p.m., Monday - Friday; other times by NOTAM.[2]	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Supersonic	At or above 5,000 ft AGL or 10,000 ft MSL, whichever is higher.	Standardize floor for supersonic at 5,000 ft AGL or higher.	Same as Proposed Action.	Same as Proposed Action.	5,000 ft AGL or 12,000 ft MSL, whichever is higher for routine and MFE training.
Training Operations	Routine and MFE training operations.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.

Table 2 Continued

MOA SPECIFICATION	NO ACTION ALTERNATIVE (MOAs / TMOAs)	PROPOSED ACTION	ALTERNATIVE A (No CLEAR CREEK MOA ALTERNATIVE)	ALTERNATIVE B (TANANA MOA ALTERNATIVE)	ALTERNATIVE A—MODIFIED
Temporary YUKON 3	Temporary YUKON 3	Permanent YUKON 3	Permanent YUKON 3	Permanent YUKON 3	Permanent YUKON 3 A/B
Altitudes	3,000 ft AGL to 17,999 ft MSL.	100 ft AGL to 17,999 ft MSL.	Same as Proposed Action.	Same as Proposed Action.	YUKON 3 (High): 10,000 ft MSL to 17,999 ft MSL. YUKON 3A (Low): 100 ft AGL to 9,999 ft MSL. YUKON 3B (Low): 2,000 ft AGL to 9,999 ft MSL.
Lateral Dimensions1	Average 100 NM by 50 NM.	Average 50 NM by 60 NM.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Published Times of Use	Six 2-week (10 flying days) MFEs per year (for a total of 60 flying days per year). Normally occurring Monday - Friday, 6:00 a.m. - 6:00 p.m.[2]	10:00 a.m. - 3:00 p.m., Monday - Friday; other times by NOTAM.[2]	Same as Proposed Action.	Same as Proposed Action.	YUKON 3 A/B (Low): 10:00 a.m. - 11:30 a.m., 1:30 p.m. - 3:00 p.m., Monday - Friday; other times by NOTAM.[2] YUKON 3 (High): Same as Proposed Action.
Supersonic	Not authorized.	5,000 ft AGL or higher.	Same as Proposed Action.	Same as Proposed Action.	YUKON 3 A/B (Low): Not authorized. YUKON 3 (High): 5,000 ft AGL or 12,000 ft MSL, whichever is higher.
Training Operations	Conduct MFE training only.	Conduct routine and MFE training operations.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.

Table-2 Continued

MOA SPECIFICATION	NO ACTION ALTERNATIVE (MOAs / TMOAs)	PROPOSED ACTION	ALTERNATIVE A (No CLEAR CREEK MOA ALTERNATIVE)	ALTERNATIVE B (TANANA MOA ALTERNATIVE)	ALTERNATIVE A—MODIFIED
Temporary YUKON 3	Temporary YUKON 3	Permanent YUKON 4	Permanent YUKON 4	Not part of Alternative B	Permanent YUKON 4
Altitudes	3,000 ft AGL to 17,999 ft MSL.	100 ft AGL to 17,999 ft MSL.	Same as Proposed Action.		Same as Proposed Action.
Lateral Dimensions[1]	Average 100 NM by 50 NM.	Average 50 NM by 40 NM.	Same as Proposed Action.		Same as Proposed Action.
Published Times of Use	Six 2-week (10 flying days) MFEs per year (for a total of 60 flying days per year). Normally occurring Monday - Friday, 6:00 a.m. - 6:00 p.m.[2]	10:00 a.m. - 3:00 p.m., Monday - Friday; other times by NOTAM.[2]	Same as Proposed Action.		Same as Proposed Action.
Supersonic	Not authorized.	5,000 ft AGL or higher.	Same as Proposed Action.		5,000 ft AGL or 12,000 ft MSL, whichever is higher.
Training Operations	Conduct MFE training only.	Conduct routine and MFE training operations.	Same as Proposed Action.		Same as Proposed Action.

Table 2 Continued

MOA SPECIFICATION	NO ACTION ALTERNATIVE (MOAs / TMOAs)	PROPOSED ACTION	ALTERNATIVE A (No CLEAR CREEK MOA ALTERNATIVE)	ALTERNATIVE B (TANANA MOA ALTERNATIVE)	ALTERNATIVE A—MODIFIED
Temporary YUKON 4	**Temporary YUKON 4**	**Permanent YUKON 5**	**Permanent YUKON 5**	**Not part of Alternative B**	**Permanent YUKON 5**
Altitudes	2,000 ft AGL to 17,999 ft MSL.	3,000 ft AGL to 17,999 ft MSL.	Same as Proposed Action.		5,000 ft AGL to 17,999 ft MSL.
Lateral Dimensions[1]	Average 90 NM by 30 NM.	Average 90 NM by 30 NM.	Same as Proposed Action.		Same as Proposed Action.
Published Times of Use	Six 2-week (10 flying days) MFEs per year (for a total of 60 flying days per year). Normally occurring Monday - Friday, 6:00 a.m. - 6:00 p.m.[2]	MOA activated by NOTAM.[2]	Same as Proposed Action.		Same as Proposed Action.
Supersonic	Not authorized.	5,000 ft AGL or higher.	Same as Proposed Action.		5,000 ft AGL or 12,000 ft MSL, whichever is higher.
Training Operations	Conduct MFE operations only.	Conduct routine and MFE training operations.	Same as Proposed Action.		No change from NAA.
Temporary YUKON 1A	**Temporary YUKON 1A**	**Permanent YUKON 6**	**Permanent YUKON 6**	**Permanent YUKON 6**	**Permanent YUKON 6**
Altitudes	100 ft AGL to 17,999 ft MSL.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Lateral Dimensions[1]	Triangular in shape; average 45 NM by 35 NM by 25 NM.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Published Times of Use	Six 2-week (10 flying days) MFEs per year (for a total of 60 flying days per year). Normally occurring Monday - Friday, 6:00 a.m. - 6:00 p.m.[2]	8:00 a.m. - 6:00 p.m., Monday - Friday; other times by NOTAM.[2]	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Supersonic	Not authorized.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Training Operations	Conduct MFE training only.	Conduct routine and MFE training operations.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.

[1] All lateral distances are given in Nautical Miles (NM) and are approximate.
[2] Sometimes it may be necessary for the Air Force to train outside the published hours. This would require that a special Notice to Airman (NOTAM) advisory be approved and issued by the FAA. However, the Air Force would plan MOA operations to begin after 7:00 a.m. local time and cease before 10:00 p.m. local time.

Table 3 SOUTHERN INTERIOR REGION MOAs

MOA SPECIFICATION	NO ACTION ALTERNATIVE (MOAs / TMOAs)	PROPOSED ACTION	ALTERNATIVE A (No CLEAR CREEK MOA ALTERNATIVE)	ALTERNATIVE B (TANANA MOA ALTERNATIVE)	ALTERNATIVE A—MODIFIED
Temporary BUFLO	Temporary BUFLO	Permanent BUFFALO	Permanent BUFFALO	Permanent BUFFALO	Permanent BUFFAL
Altitudes	1,000 ft AGL to 7,000 ft MSL.	300 ft AGL to 6,999 ft MSL.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action, with civil flight corridors.
Lateral Dimensions[1]	45 NM by 30 NM.	60 NM by 45 NM, narrowing to 25 NM.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Published Times of Use	Six 2-week (10 flying days) MFEs per year (for a total of 60 flying days per year). Normally occurring Monday - Friday, 6:00 a.m. - 6:00 p.m.[2]	8:00 a.m. - 6:00 p.m., Monday - Friday; other times by NOTAM.[2]	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Supersonic	Not authorized.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Training Operations	Conduct MFE training operations only.	Routine and MFE training operations.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Temporary EIELSON A	Temporary EIELSON A	Permanent BIRCH	Permanent BIRCH	Permanent BIRCH	Permanent BIRCH
Altitudes	100 ft AGL to 4,000 ft MSL.	No change from NAA.	No change from NAA.	No change from NAA.	500 ft AGL to 4,000 ft MSL.
Lateral Dimensions[1]	Average 20 NM by 30 NM.	No change from NAA.	No change from NAA.	No change from NAA.	Average 20 NM by 25 NM.
Published Times of Use	Six 2-week (10 flying days) MFEs per year (for a total of 60 flying days per year). Normally occurring Monday - Friday, 6:00 a.m. - 6:00 p.m.[2]	8:00 a.m. - 6:00 p.m., Monday - Friday; other times by NOTAM.[2]	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Supersonic	Not authorized.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Training Operations	Conduct MFE operations only.	Conduct routine and MFE training operations.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.

Table 3 Continued

MOA SPECIFICATION	NO ACTION ALTERNATIVE (MOAs / TMOAs)	PROPOSED ACTION	ALTERNATIVE A (No CLEAR CREEK MOA ALTERNATIVE)	ALTERNATIVE B (TANANA MOA ALTERNATIVE)	ALTERNATIVE A—MODIFIED
Temporary EIELSON B	Temporary EIELSON B	Permanent EIELSON	Permanent EIELSON	Permanent EIELSON	Permanent EIELSON
Altitudes	100 ft AGL to 17,999 ft MSL.	No change from NAA.	No change from NAA.	No change from NAA.	100 ft AGL to 17,999 ft MSL.
Lateral Dimensions[1]	Average 30 NM by 30 NM.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Published Times of Use	Six 2-week (10 flying days) MFEs per year (for a total of 60 flying days per year). Normally occurring Monday - Friday, 6:00 a.m. - 6:00 p.m.[2]	8:00 a.m. - 6:00 p.m., Monday - Friday; other times by NOTAM.[2]	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Supersonic	Not authorized.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Training Operations	Conduct MFE training operations only.	Conduct routine and MFE training operations.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
FALCON	Not part of NAA	Permanent FALCON	Permanent FALCON	Permanent FALCON	Permanent FALCON
Altitudes		100 ft AGL to 17,999 ft MSL.	Same as Proposed Action.	Same as Proposed Action.	500 ft AGL to 17,999 ft MSL.
Lateral Dimensions[1]		9 NM by 17 NM.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Published Times of Use		MOA activated by NOTAM.[2]	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Supersonic		Not authorized.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Training Operations		Conduct routine training and MFE operations.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.

Table 3 Continued

MOA SPECIFICATION	NO ACTION ALTERNATIVE (MOAs / TMOAs)	PROPOSED ACTION	ALTERNATIVE A (No CLEAR CREEK MOA ALTERNATIVE)	ALTERNATIVE B (TANANA MOA ALTERNATIVE)	ALTERNATIVE A—MODIFIED
CLEAR CREEK	Not part of NAA	Permanent CLEAR CREEK	Not part of Alternative A	Permanent CLEAR CREEK	Not part of Alternative A—Modified
Altitudes		3,000 ft MSL to 5,000 ft MSL.		Same as Proposed Action.	
Lateral Dimensions[1]		Average 18 NM by 20 NM.		Same as Proposed Action.	
Published Times of Use		MOA activated by NOTAM.[2]		Same as Proposed Action.	
Supersonic		Not authorized.		Same as Proposed Action.	
Training Operations		Conduct routine and MFE training operations.		Same as Proposed Action.	

[1] All lateral distances are given in Nautical Miles (NM) and are approximate.

[2] Sometimes it may be necessary for the Air Force to train outside the published hours. This would require that a special Notice to Airman (NOTAM) advisory be approved and issued by the FAA. However, the Air Force would plan MOA operations to begin after 7:00 a.m. local time and cease before 10:00 p.m. local time.

Table 4 SOUTHCENTRAL REGION MOAs

MOA SPECIFICATION	NO ACTION ALTERNATIVE (MOAs / TMOAs)	PROPOSED ACTION	ALTERNATIVE A (No CLEAR CREEK MOA ALTERNATIVE)	ALTERNATIVE B (TANANA MOA ALTERNATIVE)	ALTERNATIVE A - MODIFIED
Temporary FOX 1	**Temporary FOX 1**	**Permanent FOX**	**Permanent FOX**	**Permanent FOX**	**Permanent FOX**
Altitudes	3,000 ft AGL to 17,999 ft MSL.	No change from NAA.	No change from NAA.	No change from NAA.	5,000 ft AGL to 17,999 ft MSL.
Lateral Dimensions[1]	Average 80 NM by 80 NM.	No change from NAA.	No change from NAA.	No change from NAA.	Average 80 NM by 60 NM.
Published Times of Use	Six 2-week (10 flying days) MFEs per year (for a total of 60 flying days per year). Normally occurring Monday - Friday, 6:00 a.m. - 6:00 p.m.[2]	8:00 a.m. - 4:00 p.m., Monday - Friday; other times by NOTAM.[2]	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Supersonic	Not authorized.	5,000 ft AGL or higher.	Same as Proposed Action.	Same as Proposed Action.	5,000 ft AGL or 12,000 ft MSL, whichever is higher.
Training Operations	Conduct MFE training operations only.	Conduct routine and MFE training operations.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Temporary FOX 2	**Temporary FOX 2**	**Not part of Proposed Action**	**Not part of Alternative A**	**See TANANA**	**Not part of Alternative A—Modified**
Altitudes	14,000 ft AGL to 17,999 ft MSL.				
Lateral Dimensions[1]	Average 80 NM by 25 NM.				
Published Times of Use	Same as Temporary FOX 1 MOA.				
Supersonic	Not authorized.				
Training Operations	Conduct MFE training operations only.				

Table 4 Continued

MOA SPECIFICATION	NO ACTION ALTERNATIVE (MOAs / TMOAs)	PROPOSED ACTION	ALTERNATIVE A (No CLEAR CREEK MOA ALTERNATIVE)	ALTERNATIVE B (TANANA MOA ALTERNATIVE)	ALTERNATIVE A - MODIFIED
TANANA	**Not part of NAA**	**Not part of Proposed Action**	**Not part of Alternative A**	**Permanent TANANA**	**Not part of Alternative A—Modified**
Altitudes	(A portion of the Temporary FOX 2 TMOA would become part of TANANA MOA. See Temporary FOX 2 TMOA, previous page.)			Eastern section: 300 ft AGL to 17,999 ft MSL. Western section: 3,000 ft AGL to 17,999 ft MSL.	
Lateral Dimensions[1]				Irregular shape; average 50 NM wide by 150 NM long.	
Published Times of Use				8:00 a.m. - 6:00 p.m., Monday - Friday; other times by NOTAM.[2]	
Supersonic				5,000 ft AGL or higher.	
Training Operations				Conduct routine and MFE training operations.	
Permanent SUSITNA	**Permanent SUSITNA**	**Permanent SUSITNA**	**Permanent SUSITNA**	**Permanent SUSITNA**	**Permanent SUSITNA**
Altitudes	5,000 ft AGL or 10,000 ft MSL, whichever is higher, to 17,999 ft MSL.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Lateral Dimensions[1]	Pie shaped; average 60 NM wide by 45 NM long.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Published Times of Use	8:00 a.m. - 6:00 p.m., Monday - Friday; other times by NOTAM.[2]	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Supersonic	At or above 5,000 ft AGL or 10,000 ft MSL, whichever is higher.	No change from NAA.	No change from NAA.	No change from NAA.	5,000 ft AGL or 12,000 ft MSL, whichever is higher.
Training Operations	Conduct routine training operations only.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.

[1] All lateral distances are given in Nautical Miles (NM) and are approximate.

[2] Sometimes it may be necessary for the Air Force to train outside the published hours. This would require that a special Notice to Airman (NOTAM) advisory be approved and issued by the FAA. However, the Air Force would plan MOA operations to begin after 7:00 a.m. local time and cease before 10:00 p.m. local time.

Table 5 WESTERN REGION MOAs

MOA SPECIFICATION	NO ACTION ALTERNATIVE (MOAs / TMOAs)	PROPOSED ACTION	ALTERNATIVE A (No CLEAR CREEK MOA ALTERNATIVE)	ALTERNATIVE B (TANANA MOA ALTERNATIVE)	ALTERNATIVE A—MODIFIED
Permanent STONY A	**Permanent STONY A**	**Permanent STONY A**	**Permanent STONY A**	**Permanent STONY A**	**Permanent STONY A**
Altitudes	100 ft AGL to 17,999 ft MSL.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Lateral Dimensions[1]	Average 105 NM long by 70 NM wide decreasing to 20 NM wide.	No change from NAA.	No change from NAA.	No change from NAA.	Average 85 NM long by 70 NM wide decreasing to 30 NM wide.
Published Times of Use	8:00 a.m. - 6:00 p.m., Monday - Friday; other times by NOTAM.[2]	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Supersonic	At or above 5,000 ft AGL or 10,000 ft MSL, whichever is higher.	5,000 ft AGL or higher.	Same as Proposed Action.	Same as Proposed Action.	No change from NAA.
Training Operations	Conduct routine and surge exercise training operations.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Permanent STONY B	**Permanent STONY B**	**Permanent STONY B**	**Permanent STONY B**	**Permanent STONY B**	**Permanent STONY B**
Altitudes	3,000 ft AGL to 17,999 ft MSL.	100 ft AGL to 17,999 ft MSL.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Lateral Dimensions[1]	Average 50 NM long by 70 NM wide decreasing to 20 NM wide.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Published Times of Use	MOA would be activated by NOTAM.[2]	8:00 a.m. - 6:00 p.m., Monday - Friday; other times by NOTAM.[2]	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Supersonic	At or above 5,000 ft AGL or 10,000 ft MSL, whichever is higher.	5,000 ft AGL or higher.	Same as Proposed Action.	Same as Proposed Action.	No change from NAA.
Training Operations	Conduct routine and surge exercise training operations.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.

Table 5 Continued

MOA SPECIFICATION	NO ACTION ALTERNATIVE (MOAs / TMOAs)	PROPOSED ACTION	ALTERNATIVE A (No CLEAR CREEK MOA ALTERNATIVE)	ALTERNATIVE B (TANANA MOA ALTERNATIVE)	ALTERNATIVE A—MODIFIED
Temporary STONY C	Temporary STONY C	Not Part of Proposed Action	Not Part of Alternative A	Not Part of Alternative B	Not part of Alternative A—Modified
Altitudes	100 ft to 17,999 ft AGL.				
Lateral Dimensions[1]	Irregular shape; dimensions vary from 20 to 100 NM wide by 100 NM long.				
Published Times of Use	6:00 a.m. to 6 p.m., Monday - Friday; other times by NOTAM.[2]				
Supersonic	Not authorized.				
Training Operations	Conduct surge exercise training operations only.				
Permanent NAKNEK 1	Permanent NAKNEK 1	Permanent NAKNEK 1	Permanent NAKNEK 1	Permanent NAKNEK 1	Permanent NAKNEK 1
Altitudes	Variable 3,000-8,000 ft AGL to 17,999 ft MSL.	Standardize floor at 3,000 ft AGL.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Lateral Dimensions[1]	Average 70 NM by 45 NM.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Published Times of Use	8:00 a.m. - 6:00 p.m., Monday - Friday; other times by NOTAM.[2]	10:00 a.m. - 3:00 p.m., Monday - Friday; other times by NOTAM.[2]	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Supersonic	Not authorized.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Training Operations	Conduct routine training operations.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.

Table 5 Continued

MOA SPECIFICATION	NO ACTION ALTERNATIVE (MOAs / TMOAs)	PROPOSED ACTION	ALTERNATIVE A (No CLEAR CREEK MOA ALTERNATIVE)	ALTERNATIVE B (TANANA MOA ALTERNATIVE)	ALTERNATIVE A—MODIFIED
Permanent NAKNEK 2	**Permanent NAKNEK 2**	**Permanent NAKNEK 2**	**Permanent NAKNEK 2**	**Permanent NAKNEK 2**	**Permanent NAKNEK 2**
Altitudes	Variable 3,000-8,000 ft AGL to 17,999 ft MSL.	Standardize floor at 3,000 ft AGL.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Lateral Dimensions[1]	Average 80 NM long by 35 NM wide.	No change from NAA.	No change from NAA.	No change from NAA.	Average 65 NM long by 35 NM wide.
Published Times of Use	8:00 a.m. - 6:00 p.m., Monday - Friday; other times by NOTAM.[2]	10:00 a.m. - 3:00 p.m., Monday - Friday; other times by NOTAM.[2]	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Supersonic	Not authorized.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Training Operations	Conduct routine training operations only.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Permanent GALENA	**Permanent GALENA**	**Permanent GALENA**	**Permanent GALENA**	**Permanent GALENA**	**Permanent GALENA**
Altitudes	1,000 ft AGL to 17,999 ft MSL.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Lateral Dimensions[1]	Pie shaped; longest axis 70 NM; narrowest point 25 NM; average width 50 NM.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Published Times of Use	Intermittent 8:00 a.m. - 6:00 p.m., Monday - Friday; as advertised by NOTAM.[2]	MOA activated by NOTAM[2]; infrequent use would be expected.	Same as Proposed Action.	Same as Proposed Action.	Same as Proposed Action.
Supersonic	Not authorized.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.
Training Operations	Conduct routine training operations only.	No change from NAA.	No change from NAA.	No change from NAA.	No change from NAA.

[1] All lateral distances are given in Nautical Miles (NM) and are approximate.

[2] Sometimes it may be necessary for the Air Force to train outside the published hours. This would require that a special Notice to Airman (NOTAM) advisory be approved and issued by the FAA. However, the Air Force would plan MOA operations to begin after 7:00 a.m. local time and cease before 10:00 p.m. local time.

1.4 Public Involvement

Public involvement in the environmental impact analysis process for this proposal was formally initiated on July 9, 1993, with the Air Force's publication in the *Federal Register* of a Notice of Intent to prepare this EIS. From September 20 through November 15, 1993, public scoping meetings were held in 14 locations throughout the state to give the public an opportunity to voice concerns regarding the Proposed Action and to identify issues they wished to see addressed in the EIS. The Air Force delayed public scoping meetings until late September to avoid conflict with summer subsistence and recreation activities. Following publication of the Notice of Intent, meetings were announced in regional and local Alaska newspapers and then again at least two weeks prior to each meeting. The Air Force also solicited input from federal, state, and local agencies, Alaska Native groups, and civil aviation groups. All relevant issues and reasonable alternatives identified during the scoping process have been addressed.

The Notice of Availability of the Draft EIS was published in the *Federal Register* on September 2, 1994. Public hearings were conducted in September and October, 1994, at the same locations visited during scoping, and provided an opportunity for the public to comment on the findings presented in the Draft EIS. The public comment period, initially planned to close on October 31, 1994, was extended by the Air Force to November 30, 1994, to allow more time for the public to study and comment on the Draft EIS. All substantive comments received during the public comment period were considered and included in the Final EIS. Comments were also recorded at the 15 public hearings and through the statewide toll-free phone number established to receive input and disseminate information pertaining to the EIS. The Notice of Availability of the Final EIS was published in the *Federal Register* on September 8, 1995. As a result of the scoping process and public involvement, the following key issues and resources were analyzed in detail in the EIS:

Airspace Management, Aircraft Operations, and Aviation Safety. Potential hazards of military flight operations in areas of heavy civilian and/or non-DoD agency aircraft activities; potential impacts on public use of airspace by private and commercial pilots; possible impacts on public use airports and air traffic control services provided by the FAA; and potential increases in aircraft mishap rates.

Noise. Potential for increase in sound levels to affect the underlying population and sensitive environmental resources.

Chaff and Flares/Hazardous Operations. Potential impacts associated with the use of chaff and flares, airborne lasers, and munitions; and possible impacts on emergency response procedures such as fire management and fuel jettison.

Wildlife. Potential long- and short-term impacts on biodiversity, protected species, and specific animal populations due to repeated exposure to aircraft noise.

Recreation. Potential for military aircraft overflights and associated noise to affect recreation resources and the recreation experience.

Subsistence. Potential impacts of aircraft overflights on subsistence resources and subsistence activities, particularly on public lands.

Land Use. Potential for increased noise levels due to military aircraft overflights to affect land status, use, or management policies; wilderness values; aesthetic characteristics; and the quality of life.

Air Quality. Potential for increased aircraft emissions of criteria air pollutants to affect air quality, particularly in the Anchorage and Fairbanks carbon monoxide nonattainment areas and the Denali National Park and Preserve Prevention of Significant Deterioration Class I air quality area.

Socioeconomics. Potential for increases in transient military personnel and aircraft activity associated with MFEs to affect local economies.

2.0 Summary of Environmental Impacts

Existing environmental conditions provided the basis for analyzing the potential effects of the alternatives. The impact analysis relied on a mix of established methodologies (e.g., for land use and air quality) and methodologies developed specifically for this EIS in the absence of established approaches (e.g., for biological resources, recreation, and subsistence). Because implementation of any alternative, including the No Action Alternative, would affect the environment, the methodologies were designed to predict not only what impact was likely to result, but also the probable severity of the impact. Thus, impact levels were defined broadly as none or negligible (Level I Impacts); adverse, but not significant (Level II Impacts); and significantly adverse (Level III Impacts). Direct and indirect effects were considered, as were short-term, long-term, and potential cumulative effects. Detailed definitions of impact levels by resource are provided in the EIS, Chapter 4.

Resources for which adverse impacts (Level II) or significantly adverse impacts (Level III) are predicted are identified; resources not specifically mentioned are expected to sustain no or negligible impacts (Level I). Note that the FAA assumes responsibility for assessing impact levels (I, II, or II) with regard to airspace management, aircraft operations, and aviation safety through its circularization process for the Air Force's airspace proposal. Consequently, except for mishap potential for DoD aircraft using the airspace, the Final EIS does not predict impacts to these resource elements.

The effects of implementing the Air Force preferred alternative, Alternative A--Modified, in comparison to the other alternatives considered in the EIS are summarized in Table 6. Detailed discussions of the environmental impacts are presented in Chapter 4 of the EIS.

Table 6 Environmental Consequences of the Alternatives

Resource	No Action Alternative	Proposed Action	Alternative A	Alternative B	Alternative A—Modified
Airspace Management, Aircraft Operations, Aviation Safety					
Airspace Management, Aircraft Operations, and Aviation Safety	Negligible Impact.	Potential Adverse Impact: YUKON 3 and 4, BIRCH, EIELSON, BUFFALO, and STONY B MOAs.	Potential Adverse Impact: YUKON 3 and 4, BIRCH, EIELSON, BUFFALO, and STONY B MOAs.	Potential Significant Adverse Impact: TANANA MOA. Potential Adverse Impact: YUKON 3 and 4, BIRCH, EIELSON, BUFFALO, and STONY B MOAs.	Potential Adverse Impact: STONY B MOA.
Chaff, Flares, and Hazardous Operations					
Chaff, Flares, and Hazardous Operations	Negligible Impact.	Negligible Impact.	Negligible Impact.	Negligible Impact.	Negligible Impact.
Biological Resources					
American peregrine falcon	Potential Adverse Impact: falcons nesting outside Flight Avoidance Area #17.	Potential Adverse Impact: falcons nesting outside Flight Avoidance Area #17.	Potential Adverse Impact: falcons nesting outside Flight Avoidance Area #17.	Potential Adverse Impact: falcons nesting outside Flight Avoidance Area #17.	Potential Adverse Impact: falcons nesting outside Flight Avoidance Area #17.
Waterfowl	Potential Significant Adverse Impact: trumpeter swan breeding areas under SUSITNA MOA.	Potential Significant Adverse Impact: trumpeter swan breeding areas under SUSITNA and FOX MOAs.	Potential Significant Adverse Impact: trumpeter swan breeding areas under SUSITNA and FOX MOAs.	Potential Significant Adverse Impact: trumpeter swan breeding areas under SUSITNA, FOX, and TANANA MOAs.	Potential Significant Adverse Impact: trumpeter swan breeding areas under SUSITNA and FOX MOAs, but breeding areas under FOX largely avoided.
Raptors	Potential Adverse Impact: breeding and nesting concentration areas overflown below 2,000 ft AGL or at supersonic speed.	Potential Adverse Impact: breeding and nesting concentration areas overflown below 2,000 ft AGL or at supersonic speed.	Potential Adverse Impact: breeding and nesting concentration areas overflown below 2,000 ft AGL or at supersonic speed.	Potential Adverse Impact: breeding and nesting concentration areas overflown below 2,000 ft AGL or at supersonic speed.	Potential Adverse Impact: breeding and nesting concentration areas overflown below 2,000 ft AGL or at supersonic speed.
Caribou	Potential Significant Adverse Impact: Delta herd under EIELSON A and B, and FOX 1 and 2 MOAs, and on Oklahoma and Blair Lakes ranges if key life cycle phase overflown. Potential Adverse Impact: calving, summer concentration, rutting, or wintering areas overflown below 3,000 ft AGL or at supersonic speed.	Potential Significant Adverse Impact: Delta herd under CLEAR CREEK, BIRCH, EIELSON, and FOX MOAs, and on Oklahoma and Blair Lakes ranges. Potential Adverse Impact: calving, summer concentration, rutting, or wintering areas overflown below 3,000 ft AGL or at supersonic speed.	Potential Significant Adverse Impact: Delta herd under BIRCH, EIELSON, and FOX MOAs, and on Oklahoma and Blair Lakes ranges. Potential Adverse Impact: calving, summer concentration, rutting, or wintering areas overflown below 3,000 ft AGL or at supersonic speed.	Potential Significant Adverse Impact: Delta herd under CLEAR CREEK, BIRCH, EIELSON, and FOX MOAs, and on Oklahoma and Blair Lakes ranges. Potential Adverse Impact: calving, summer concentration, rutting, or wintering areas overflown below 3,000 ft AGL or at supersonic speed.	Potential Significant Adverse Impact: Delta caribou herd under BIRCH, EIELSON, and FOX MOAs, and on Oklahoma and Blair Lakes range. Potential Adverse Impact: calving, summer concentration, rutting, or wintering areas overflown below 3,000 ft AGL or at supersonic speed.

Table 6 Continued

Resource	No Action Alternative	Proposed Action	Alternative A	Alternative B	Alternative A—Modified
Moose	Potential Adverse Impact: critical life cycle habitat overflown below 3,000 ft AGL or at supersonic speed.	Potential Adverse Impact: critical life cycle habitat overflown below 3,000 ft AGL or at supersonic speed.	Potential Adverse Impact: critical life cycle habitat overflown below 3,000 ft AGL or at supersonic speed.	Potential Adverse Impact: critical life cycle habitat overflown below 3,000 ft AGL or at supersonic speed.	Potential Adverse Impact: critical life cycle habitat overflown below 3,000 ft AGL or at supersonic speed.
Dall sheep	Potential Significant Adverse Impact: YUKON 1-4, BUFFALO, EIELSON B, and FOX 1 and 2 MOAs, and Oklahoma range. Potential Adverse Impact: critical life cycle habitat overflown below 5,000 ft AGL or at supersonic speed.	Potential Significant Adverse Impact: YUKON 1-4, BUFFALO, EIELSON, and FOX MOAs, and Oklahoma range. Potential Adverse Impact: critical life cycle habitat overflown below 5,000 ft AGL or at supersonic speed.	Potential Significant Adverse Impact: YUKON 1-4, BUFFALO, EIELSON, and FOX MOAs, and Oklahoma range. Potential Adverse Impact: critical life cycle habitat overflown below 5,000 ft AGL or at supersonic speed.	Potential Significant Adverse Impact: YUKON 1-4, BUFFALO, EIELSON, and FOX MOAs, and Oklahoma range. Potential Adverse Impact: critical life cycle habitat overflown below 5,000 ft AGL or at supersonic speed.	Potential Significant Adverse Impact: YUKON 1-4, BUFFALO, EIELSON, and FOX MOAs, and Oklahoma range. Potential Adverse Impact: critical life cycle habitat overflown below 5,000 ft AGL or at supersonic speed.
Brown and Black Bears	Potential Adverse Impact (localized to individuals): overflights below 3,000 ft AGL or at supersonic speed.	Potential Adverse Impact (localized to individuals): overflights below 3,000 ft AGL or at supersonic speed.	Potential Adverse Impact (localized to individuals): overflights below 3,000 ft AGL or at supersonic speed.	Potential Adverse Impact (localized to individuals): overflights below 3,000 ft AGL or at supersonic speed.	Potential Adverse Impact (localized to individuals): overflights below 3,000 ft AGL or at supersonic speed.
Wolves	Potential Adverse Impact: if prey species (caribou or moose) sustain Level II or higher impacts.	Potential Adverse Impact: if prey species (caribou or moose) sustain Level II or higher impacts.	Potential Adverse Impact: if prey species (caribou or moose) sustain Level II or higher impacts.	Potential Adverse Impact: if prey species (caribou or moose) sustain Level II or higher impacts.	Potential Adverse Impact: if prey species (caribou or moose) sustain Level II or higher impacts.
Recreation					
Steese National Conservation Area and Birch Creek National Wild River	Potential Adverse Impact: YUKON 2 MOA.	Potential Adverse Impact: YUKON 2 MOA.	Potential Adverse Impact: YUKON 2 MOA.	Potential Adverse Impact: YUKON 2 MOA.	Potential Adverse Impact: YUKON 2 MOA.
Yukon-Charley Rivers National Preserve and Charley National Wild River	Potential Adverse Impact: YUKON 1 and 2 MOAs. Potential Significant Adverse Impact: YUKON 3 TMOA during MFEs.	Potential Adverse Impact: YUKON 1 and 2 MOAs. Potential Significant Adverse Impact: YUKON 3 and 4 MOAs.	Potential Adverse Impact: YUKON 1 and 2 MOAs. Potential Significant Adverse Impact: YUKON 3 and 4 MOAs.	Potential Adverse Impact: YUKON 1 and 2 MOAs. Potential Significant Adverse Impact: YUKON 3 and 4 MOAs.	Potential Adverse Impact: YUKON 1 and 2 MOAs. Potential Significant Adverse Impact: YUKON 3 and 4 MOAs.
Fortymile National Wild & Scenic River	Negligible Impact: YUKON 3 TMOA during MFEs.	Potential Significant Adverse Impact: YUKON 3 MOA.	Potential Significant Adverse Impact: YUKON 3 MOA.	Potential Significant Adverse Impact: YUKON 3 and TANANA MOAs.	Potential Significant Adverse Impact (Lesser-used Upper River portion): YUKON 3A MOA. Negligible Impact: YUKON 3B MOA (2,000 ft AGL Floor).
Taylor Highway	Negligible Impact: YUKON 3 TMOA during MFEs.	Potential Adverse Impact: YUKON 3 MOA.	Potential Adverse Impact: YUKON 3 MOA.	Potential Adverse Impact: YUKON 3 and TANANA MOAs.	Negligible Impact: YUKON 3B MOA (2,000 ft AGL Floor).

Table 6 Continued

Resource	No Action Alternative	Proposed Action	Alternative A	Alternative B	Alternative A—Modified
Walker Fork Campground	Negligible Impact: YUKON 3 TMOA during MFEs.	Potential Adverse Impact: YUKON 3 MOA.	Potential Adverse Impact: YUKON 3 MOA.	Potential Adverse Impact: YUKON 3 MOA.	Negligible Impact: YUKON 3B MOA (2,000 ft AGL Floor).
Gulkana National Wild River Main Stem	Potential Adverse Impact: FOX TMOAs during MFEs.	Not affected.	Not affected.	Potential Significant Adverse Impact: TANANA MOA.	Not affected.
Gulkana National Wild River Middle Fork	Potential Adverse Impact: FOX TMOAs during MFEs.	Potential Significant Adverse Impact: FOX MOA.	Potential Significant Adverse Impact: FOX MOA.	Potential Significant Adverse Impact: FOX and TANANA MOAs.	Not affected.
Gulkana National Wild River West Fork	Potential Adverse Impact: FOX TMOAs during MFEs.	Potential Significant Adverse Impact: FOX MOA.	Potential Significant Adverse Impact: FOX MOA.	Potential Significant Adverse Impact: FOX and TANANA MOAs.	Negligible Impact: FOX A MOA (5,000 ft AGL Floor).
Delta National Wild River	Potential Adverse Impact: FOX TMOAs during MFEs.	Potential Significant Adverse Impact: FOX MOA.	Potential Significant Adverse Impact: FOX MOA.	Potential Significant Adverse Impact: FOX and TANANA MOAs.	Not affected.
Denali Highway	Potential Adverse Impact: FOX TMOAs during MFEs.	Potential Significant Adverse Impact: FOX MOA.	Potential Significant Adverse Impact: FOX MOA.	Potential Significant Adverse Impact: FOX and TANANA MOAs.	Negligible Impact: FOX A MOA (5,000 ft AGL Floor).
Tangle Lakes & Tangle River Campgrounds; Tangle Lakes National Register Archaeological District	Negligible Impact: FOX TMOAs during MFEs.	Potential Adverse Impact: FOX MOA.	Potential Adverse Impact: FOX MOA.	Potential Adverse Impact: FOX MOA.	Not affected.
Brushkana Campground	Negligible Impact: FOX TMOAs during MFEs.	Potential Adverse Impact: FOX MOA.	Potential Adverse Impact: FOX MOA.	Potential Adverse Impact: FOX MOA.	Negligible Impact: FOX A MOA (5,000 ft AGL Floor).
Proposed West Fork Area of Critical Environmental Concern	Potential Adverse Impact: FOX TMOAs during MFEs.	Potential Significant Adverse Impact: FOX MOA.	Potential Significant Adverse Impact: FOX MOA.	Potential Significant Adverse Impact: FOX and TANANA MOAs.	Negligible Impact: FOX A MOA (5,000 ft AGL Floor).
Richardson Highway	Potential Adverse Impact: FOX 2 TMOA during MFEs.	Not affected.	Not affected.	Potential Significant Adverse Impact: TANANA MOA.	Not affected.
West Fork Campground	Not affected.	Not affected.	Not affected.	Potential Adverse Impact: TANANA MOA.	Not affected.
Subsistence					
Circle	Potential Adverse Impact: YUKON 2 MOA during MFEs in Aug-Sep.	Potential Adverse Impact: YUKON 2 MOA during MFEs in Aug-Sep.	Potential Adverse Impact: YUKON 2 MOA during MFEs in Aug-Sep.	Potential Adverse Impact: YUKON 2 MOA during MFEs in Aug-Sep.	Potential Adverse Impact: YUKON 2 MOA during MFEs in Aug-Sep.

Table 6 Continued

Resource	No Action Alternative	Proposed Action	Alternative A	Alternative B	Alternative A—Modified
Eagle Village	Negligible Impact.	Potential Significant Adverse Impact: YUKON 3 MOA during MFEs in Aug-Sep.	Potential Significant Adverse Impact: YUKON 3 MOA during MFEs in Aug-Sep.	Potential Significant Adverse Impact: YUKON 3 MOA during MFEs in Aug-Sep.	Potential Adverse to Significant Adverse Impact: YUKON 3 MOA during MFEs in Aug-Sep.
Eagle City	Negligible Impact.	Potential Adverse Impact: YUKON 3 MOA during MFEs in Aug-Sep.	Potential Adverse Impact: YUKON 3 MOA during MFEs in Aug-Sep.	Potential Adverse Impact: YUKON 3 MOA during MFEs in Aug-Sep.	Potential Adverse to Significant Adverse Impact: YUKON 3 MOA during MFEs in Aug-Sep.
Chicken	Negligible Impact.	Potential Adverse Impact: YUKON 3 MOA during MFEs in Aug-Sep.	Potential Adverse Impact: YUKON 3 MOA during MFEs in Aug-Sep.	Potential Adverse Impact: YUKON 3 MOA during MFEs in Aug-Sep.	Potential Adverse to Significant Adverse Impact: YUKON 3 MOA during MFEs in Aug-Sep.
Dot Lake	Potential Adverse Impact: BUFLO TMOA during MFEs in Aug-Sep.	Potential Significant Adverse Impact: BUFFALO MOA during MFEs in Aug-Sep.	Potential Significant Adverse Impact: BUFFALO MOA during MFEs in Aug-Sep.	Potential Significant Adverse Impact: BUFFALO and TANANA MOAs during MFEs in Aug-Sep. Potential Adverse Impact: BUFFALO MOA during MFEs in Dec-Feb.	Potential Adverse to Significant Adverse Impact: BUFFALO MOA during MFEs in Aug-Sep.
Healy Lake	Potential Significant Adverse Impact: BUFLO TMOA during MFEs in Aug-Sep.	Potential Significant Adverse Impact: BUFFALO MOA during MFEs in Aug-Sep.	Potential Significant Adverse Impact: BUFFALO MOA during MFEs in Aug-Sep.	Potential Significant Adverse Impact: BUFFALO and TANANA MOAs during MFEs in Aug-Sep.	Potential Adverse to Significant Adverse: BUFFALO MOA during MFEs in Aug-Sep.
Tanacross	Negligible Impact.	Negligible Impact.	Negligible Impact.	Potential Significant Adverse Impact: TANANA MOA during MFEs in Aug-Sep. Potential Adverse Impact: TANANA MOA during MFEs in Dec-Feb.	Negligible Impact.
Lime Village	Potential Adverse Impact: STONY A MOA in mid-Aug-Sep.	Potential Adverse Impact: STONY A and B MOAs in Apr-May, mid-Aug-Oct.	Potential Adverse Impact: STONY A and B MOAs in Apr-May, mid-Aug-Oct.	Potential Adverse Impact: STONY A and B MOAs in Apr-May, mid-Aug-Oct.	Potential Adverse Impact: STONY A and B MOAs in Apr-May, mid-Aug-Oct.
Napamiute	Potential Adverse Impact: STONY B MOA and STONY C TMOA during surge training in Aug-Sep.	Potential Adverse Impact: STONY B MOA in Apr-May, mid-Aug-Oct.	Potential Adverse Impact: STONY B MOA in Apr-May, mid-Aug-Oct.	Potential Adverse Impact: STONY B MOA in Apr-May, mid-Aug-Oct.	Potential Adverse Impact: STONY B MOA in Apr-May, mid-Aug-Oct.

Table 6 Continued

Resource	No Action Alternative	Proposed Action	Alternative A	Alternative B	Alternative A—Modified
Red Devil	Negligible Impact: STONY B MOA surge training in mid-Aug-Sep, mid-Apr-mid-May.	Potential Adverse Impact: STONY A and B MOAs in Apr-May, mid-Aug-Oct.	Potential Adverse Impact: STONY A and B MOAs in Apr-May, mid-Aug-Oct.	Potential Adverse Impact: STONY A and B MOAs in Apr-May, mid-Aug-Oct.	Potential Adverse Impact: STONY A and B MOAs in Apr-May, mid-Aug-Oct.
Sleetmute	Negligible Impact: STONY B MOA during surge training in Aug-Sep, mid-Apr-mid-May.	Potential Adverse Impact: STONY A and B MOAs in Apr-May, mid-Aug-Oct.	Potential Adverse Impact: STONY A and B MOAs in Apr-May, mid-Aug-Oct.	Potential Adverse Impact: STONY A and B MOAs in Apr-May, mid-Aug-Oct.	Potential Adverse Impact: STONY A and B MOAs in Apr-May, mid-Aug-Oct.
Chuathbaluk	Potential Adverse Impact: STONY B MOA and STONY C TMOA during surge training in Aug-Sep.	Negligible Impact: STONY B MOA in Apr-May, Aug-Sep.	Negligible Impact: STONY B MOA in Apr-May, Aug-Sep.	Negligible Impact: STONY B MOA in Apr-May, Aug-Sep.	Negligible Impact: STONY B MOA in Apr-May, Aug-Sep.
Stony River	Negligible Impact: STONY B MOA during surge training in Aug-Sep, mid-Apr-mid-May.	Potential Adverse Impact: STONY A and B MOAs in Apr-May, mid-Aug-Oct.	Potential Adverse Impact: STONY A and B MOAs in Apr-May, mid-Aug-Oct.	Potential Adverse Impact: STONY A and B MOAs in Apr-May, mid-Aug-Oct.	Potential Adverse Impact: STONY A and B MOAs in Apr-May, mid-Aug-Oct.
Land Use					
Eielson AFB (on-base)	Negligible Impact: 919 residents exposed to DNL ≥ 65 dB; 193 residents predicted to be Highly Annoyed[2].	Potential Adverse Impact: 1,608 residents exposed to DNL ≥ 65 dB, an increase of 689; 369 residents predicted to be Highly Annoyed, an increase of 176.	Potential Adverse Impact: 1,608 residents exposed to DNL ≥ 65 dB, an increase of 689; 369 residents predicted to be Highly Annoyed, an increase of 176.	Potential Adverse Impact: 1,608 residents exposed to DNL ≥ 65 dB, an increase of 689; 369 residents predicted to be Highly Annoyed, an increase of 176.	Potential Adverse Impact: 1,608 residents exposed to DNL ≥ 65 dB, an increase of 689; 369 residents predicted to be Highly Annoyed, an increase of 176.
Elmendorf AFB (off-base)	Negligible Impact: 497 residents exposed to DNL ≥ 65 dB; 104 residents predicted to be Highly Annoyed.	Potential Adverse Impact: 1,001 residents exposed to DNL ≥ 65 dB, an increase of 504; 210 residents predicted to be Highly Annoyed, an increase of 106.	Potential Adverse Impact: 1,001 residents exposed to DNL ≥ 65 dB, an increase of 504; 210 residents predicted to be Highly Annoyed, an increase of 106.	Potential Adverse Impact: 1,001 residents exposed to DNL ≥ 65 dB, an increase of 504; 210 residents predicted to be Highly Annoyed, an increase of 106.	Potential Adverse Impact: 1,001 residents exposed to DNL ≥ 65 dB, an increase of 504; 210 residents predicted to be Highly Annoyed, an increase of 106.

[1] If a resource is not specifically mentioned, negligible or no impacts are predicted.
[2] Day-Night Average A-Weighted Sound Level (DNL).

2.1 Environmental Impacts of the Preferred Alternative: Alternative A-Modified

Effects on resources that are predicted to result from implementation of Alternative A--Modified are summarized below. Detailed information about the existing conditions, impacts, and environmental consequences are contained in the Final EIS, Sections 3 and 4.

Airspace Management, Aircraft Operations, and Aviation Safety (Sections 3.2 and 4.2)
Implementation of the Preferred Alternative is predicted to result in increased potential for unaware interaction between military and civil aviation and occasional disruption of civil aviation in YUKON 3, YUKON 4, BIRCH, EIELSON, BUFFALO, and STONY B MOAs; however, the potential for interaction between military and civil aviation, and disruption of civil aviation is reduced in the YUKON 3, BUFFALO, and BIRCH MOAs with the creation of civil flight corridors and elevation of the MOA floors.

Chaff, Flares, and Hazardous Operations (Sections 3.3 and 4.3)
The airspace approved for use of chaff and flares will increase by a maximum of 61 percent, but existing employment procedures preclude any increased risk of wildland fires or other environmental degradation (Level I Impacts). The use of airborne lasers in the MOAs will be restricted to the eye-safe "training" mode to avoid any potential injury to humans (Level I Impacts). Munitions expenditures will not increase, nor will they exceed the annual range cleanup capability (Level I Impacts). The 33 percent increase in the number of MFE sorties could incrementally increase the occurrence of emergency fuel jettisoning, but existing procedures designed to avoid environmental degradation accommodate this increase (Level I Impacts).

Biological Resources (Sections 3.5 and 4.5)
Consultation with the U.S. Fish and Wildlife Service, in accordance with Section 7 of the Endangered Species Act, identified the American peregrine falcon (*Falco peregrinus anatum*) as the only protected species of concern. In that nest-avoidance restrictions stipulated in a 1993 Biological Opinion and 1994 supplement would remain in force, no significant adverse impact to protected species is anticipated.

Implementation of the Preferred Alternative is predicted to result in possible Level III Impacts to the following biological resources:

- Trumpeter swans nesting along the west fork of the Gulkana River under the FOX MOA and, to a lesser degree, along the three major drainage's beneath the SUSITNA MOA; although these impacts are substantially reduced by shifting the eastern boundary of the FOX MOA west and away from breeding areas;
- The Delta Caribou Herd located under the BIRCH, EIELSON, and FOX MOAs, and on the Oklahoma and Blair Lakes air-to-ground weapons ranges; although, these impacts to the Delta caribou herd are reduced somewhat due to elimination of the CLEAR CREEK MOA and reduction in the size of the BIRCH MOA (i.e., shifted away from the Salcha River); and
- Dall sheep populations in the northern Alaska Range and the Tanana Hills under the YUKON 1-4, BUFFALO, EIELSON, and FOX MOAs, and on the Oklahoma air-to-ground weapons range.

Additionally, Level II Impacts are also possible for the following biological resources:

- Peregrine falcon nest sites located outside existing Flight Avoidance Areas and under MOAs with floors lower than 2,000 feet AGL or supersonic aircraft operations;
- Waterfowl concentration and breeding areas located under MOAs with floors lower than 2,000 feet AGL or supersonic aircraft operations;
- Raptor breeding areas and nesting concentrations located under MOAs with floors lower than 2,000 feet AGL or supersonic aircraft operations;
- Caribou critical-season habitat (calving, post-calving, summer concentration, rutting, and wintering) located under MOAs with floors lower than 3,000 feet AGL or supersonic aircraft operations;

- Moose critical-season habitat (calving, rutting, and wintering) located under MOAs with floors lower than 3,000 feet AGL or supersonic aircraft operations;
- Dall sheep general habitat located under MOAs with floors lower than 5,000 feet AGL or supersonic aircraft operations;
- Brown and black bear critical-season habitat (breeding, den site selection, cub rearing, and concentrations on seasonally important food sources) located under MOAs with floors lower than 3,000 feet AGL or supersonic aircraft operations; and
- Wolves dependent on caribou or moose populations susceptible to adverse impacts.

In addition, raising the floors of the FOX and YUKON 5 MOAs to 5,000 feet AGL and limiting YUKON 5 to MFEs only, the potential for adverse effects to wildlife populations under these MOAs will be minimized, although supersonic operations will still be authorized.

Recreation Resources (Sections 3.6 and 4.6)
Potential impacts to much of the Fortymile National Wild and Scenic River system, the Taylor Highway, and the Walker Fork Campground are reduced to negligible (Level I) due to raising the floor of the southeastern portion of the YUKON 3 MOA (YUKON 3B) to 2,000 feet AGL as provided by the Preferred Alternative. Additionally, impacts to the Delta National Wild and Scenic River, the main stem and middle forks of the Gulkana National Wild River, and the Tangle Lakes/Tangle River area are eliminated due to the shifting of the eastern boundary of the FOX MOA westward. Raising the floor of the FOX MOA to 5,000 feet AGL will also reduce predicted impacts to the Delta Highway, Brushkana Campground, Proposed West Fork Area of Critical Environmental Concern, and the small segment of the west fork of the Gulkana River that remains under the MOA to Level I Impacts.

Level II Impacts to recreation resources are predicted for the following:

- Steese National Conservation Area and Birch Creek National Wild River under the YUKON 2 MOA; and
- Yukon-Charley Rivers National Preserve and Charley National Wild River under the YUKON 1 and YUKON 2 MOAs—46 percent affected.

Subsistence Resources (Sections 3.7 and 4.7)
Implementation of the Preferred Alternative is predicted to result in Level III Impacts to subsistence for the following communities:

- Eagle Village during MFEs conducted August through September in YUKON 3 MOA; however, raising the floor of the southeastern portion of YUKON 3 MOA (YUKON 3B) to 2,000 feet AGL will reduce average and single event noise levels and any associated effects on subsistence resources or activities for the community of Eagle Village; and
- Dot Lake and Healy Lake during MFEs conducted August through September in BUFFALO MOA.

Level II Impacts to subsistence are predicted for the following communities:

- Circle during MFEs conducted August through September in YUKON 2 MOA;
- Eagle City and Chicken during MFEs conducted August through September in YUKON 3 MOA; however, raising the floor of the southeastern portion of YUKON 3 MOA (YUKON 3B) to 2,000 feet AGL will reduce average and single event noise levels and any associated effects on subsistence resources or activities for the communities of Eagle City and Chicken; and
- Lime Village during surge exercises and routine flying training conducted in STONY A and STONY B MOAs during April though May and mid-August through October.

Land Use (Sections 3.8 and 4.8)
Level II Impacts are predicted for 689 on-base residents of Eielson AFB who will be newly exposed to Day-Night Average Sound Levels (DNL) greater than 65 decibels, 176 of whom are predicted to be "Highly Annoyed" by this exposure. Level II impacts are also predicted for 504 residents located off-base, but adjacent to Elmendorf AFB who will also be newly exposed to DNL greater than 65 decibels, 106 of whom are anticipated to be "Highly Annoyed."

Air Quality (Sections 3.9 and 4.9)
Emissions of criteria air pollutants due to increased aircraft operations during MFEs is predicted to result in negligible impacts (Level I Impacts) to the Fairbanks and Anchorage carbon monoxide nonattainment areas, the Denali National Park and Preserve Prevention of Significant Deterioration Class I air quality area, and all other areas within the Region of Influence.

Socioeconomics (Sections 3.10, 4.6, and 4.10)
The local economies of Eielson and Elmendorf AFBs will experience beneficial financial input from transient personnel associated with MFEs. At Eielson AFB, a maximum estimate of 1,015 transient personnel per MFE, each staying 15 days and spending an average of $55.00 per day, is predicted to result in $837,375.00 spent per MFE; or a total of $5,024,250.00 spent annually (6 MFEs per year), most within the Fairbanks North Star Borough and surrounding region. At Elmendorf AFB, a maximum estimate of 322 transient personnel per MFE, each staying 15 days and also spending an average of $55.00 per day, is predicted to result in $265,650.00 spent per MFE; or a total of $1,593,900.00 spent annually (6 MFEs per year), most within the Municipality of Anchorage and surrounding region. No adverse impacts are predicted to recreational business (e.g. guide services, fishing and hunting trips,

2.2 Measures to Mitigate Adverse Effects of the Preferred Alternative

All practicable means to avoid or minimize environmental harm from the alternative selected have been identified in Table 7. Table 7 identifies the specific mitigation measures that could be implemented by the Air Force to avoid and/or minimize potentially significant adverse effects on the environment that may result from the implementation of Alternative A--Modified, but does not include altitude and MOA boundary changes which were incorporated into FAA Aeronautical Study 95-AAL-042NR, which are identified in Table 8.

For the most part, impacts and mitigation fall into two categories: 1) potential conflicts with general aviation, and 2) noise concerns. Noise impact mitigations were developed for the F-15 and F-16 aircraft—the aircraft that would be the predominant users of the MOAs. Although other aircraft capable of producing slightly higher noise levels would occasionally use the airspace, there is only about a 2 to 4 decibel (dB) difference in single-event maximum noise levels between these aircraft and the F-15 and F-16, use levels projected for these aircraft are low, and their activities would be dispersed over large areas. Given these factors, mitigation designed to alleviate noise impacts from F-15 and F-16 aircraft should be sufficient. The mitigations listed are technically feasible measures the Air Force would be able to execute.

Measures designed to mitigate the noise-derived adverse impacts identified in this analysis were developed based on a review of pertinent background information, including an Interagency Agreement between the NPS, USFWS, BLM, and FAA (1993) that encourages pilots making VFR flights over noise sensitive areas to ". . . make every effort to fly not less than 2,000 feet above the surface, weather permitting. . ." and a recently completed study prepared for the NPS by Anderson and Horonjeff (1992). The NPS study examined the effect of aircraft altitude on sound levels on the ground. Briefly, it suggested that enforcing minimum altitude restrictions above NPS units is an effective mitigation only when aircraft are operating at relatively low altitudes to begin with. The greatest acoustical benefit occurs when aircraft slant distance (height above ground) is increased from 125 feet to 1,000 feet (decreasing maximum sound level by 24 dB), then to 2,000 feet (an additional 8 dB decrease), and then to 3,000 feet (an additional 5 dB decrease). Increasing slant distance further, from 3,000 to 5,000 feet, results in moderate to substantial sound level reductions (roughly a 4 dB reduction for each 1,000-foot increase). Beyond 5,000 feet, each 1,000-foot increase produces only a "very small" reduction in sound level (about 2 dB for each 1,000-foot step)

(ibid.). The study concluded that minimum altitude restrictions over NPS units should be applied on a case-by-case basis for site-specific sensitivities and declined to recommend any minimum altitude restriction for NPS units in general.

Table 7 Mitigation Measures

Mitigation	MOA(s) Affected	Resource(s) Mitigated	Effectiveness
Use Restrictions — MFEs			
Conduct no MFEs during September, December, or January.	All MOAs	Aviation Safety Recreation Subsistence Land Use	This would minimize potential impacts to sport and subsistence hunting and other late season recreation and aviation activities.
Provide a minimum 2-week break between MFEs.	All MOAs	Biological Resources Recreation Land Use	This would minimize potential impacts to wildlife and recreationists by providing periods when outdoor activities could be planned to avoid MFEs and providing quiet periods for wildlife.
Conduct no MFEs the week prior to and the week following the 4th of July.	All MOAs	Recreation	This would minimize potential impacts during one of the highest recreation use periods of the year.
Limit use to MFEs only.	YUKON 3B YUKON 5	Aviation Safety Biological Resources Recreation Subsistence	For YUKON 5 MOA, this would maintain the *status quo* for military aircraft operations in the area. For Yukon 3B MOA, this minimizes the impact to civil aviation IFR operations between Canada and Fairbanks.
Use Restrictions — Supersonic Operations			
Limit supersonic operations to Functional Check Flights (FCFs) and Operational Check Flights (OCFs) along an east/west line south of the Denali National Park and Preserve.	SUSITNA	Recreation	This would minimize potential noise (sonic boom) effects on the resources and users of Denali National Park and Preserve and the community of Petersville.
Conduct supersonic operations at or above 5,000 ft AGL or 12,000 ft MSL, whichever is higher. NOTE: Supersonic operations in STONY A and B MOAs would continue to be conducted at or above 5,000 ft AGL or 10,000 ft MSL, whichever is higher.	YUKON 1-5 SUSITNA FOX	Biological Resources Recreation Subsistence Land Use	This would reduce the maximum peak overpressures from sonic booms, minimizing potential impacts associated with supersonic operations.

Table 7 Continued

Mitigation	MOA(s) Affected	Resource(s) Mitigated	Effectiveness
Flight Avoidance Areas and Overflight/Operational Restrictions			
Increase the existing peregrine falcon Flight Avoidance Areas (2,000 ft AGL and 2 NM either side of the river centerline) on the Charley, Kandik, and Yukon rivers to extend from April 15 to September 15.	YUKON 1-4	Biological Resources Recreation Aviation Safety	This would reduce noise levels and enhance civil aviation access along the rivers.
Establish a Flight Avoidance Area over the Nowitna National Wild River (2,000 ft AGL and 2 NM either side of the river centerline) from May 15 to July 15.	GALENA	Biological Resources Recreation Aviation Safety	This would reduce noise levels and enhance civil aviation access along the river.
Protect "at-risk" wildlife populations by restricting overflights during critical lifecycle periods. "At-risk" populations and temporal and spatial protection parameters to be established through consultation with management agencies, and the smallest practicable and effective area mitigated.	All MOAs	Biological Resources	This would reduce noise levels and the potential for negative behavioral responses. The focus on "at risk" populations during critical lifecycle periods minimizes the likelihood of long-term negative effects.
Protect the Delta caribou herd by establishing a minimum overflight altitude of 3,000 ft AGL over calving areas (nominally from May 15 to June 15).	BIRCH EIELSON	Biological Resources	This would reduce noise levels and the potential for negative behavioral responses.
Protect Dall sheep in the Northern Alaska Range and the Tanana Hills by establishing a minimum overflight altitude of 5,000 ft AGL over lambing areas and spring mineral licks (nominally from May 15 to June 15) and over rutting areas (nominally from November 15 to December 15).	YUKON 1-4 BUFFALO EIELSON FOX*	Biological Resources	This would reduce noise levels and the potential for negative behavioral responses.

Table 7 Continued

Mitigation	MOA(s) Affected	Resource(s) Mitigated	Effectiveness
Communication and Information Exchange			
Continue to provide the Special Use Airspace Information Service (SUAIS).	EIELSON BIRCH BUFFALO YUKON 1, 2, and 3	Aviation Safety	This would increase situational awareness of all aviators operating in the Interior MOAs.
Continue the in-state toll free number (1-800-538-6647).	All MOAs	Recreation Subsistence Land Use	This would provide the public with a mechanism for obtaining information on Air Force aviation activities and MFE schedules, and conveying information and/or concerns to the Air Force (see Appendix O).
Notify Alaska press outlets of the annual MFE schedule for release in publications such as the *Milepost*, visitor and travel guides, and various newspapers.	All MOAs	Aviation Safety Recreation Subsistence Land Use	This would enable individuals to plan activities around the MFE schedule if they wished.
Continue operation of the Alaska Civil/Military Aviation Council (ACMAC).	All MOAs	Airspace Management Aviation Safety	This would provide for direct dialogue between airspace users to addressaviation activities of mutual concern.
Establish a Resource Protection Council consisting of three inter-agency (federal, state, and Air Force) coordination teams: 1) Resource Protection/Mitigation, 2) Public Information, and 3) Research and Monitoring.	All MOAs	Biological Resources Recreation Subsistence Land Use	This would provide a forum for monitoring the efficacy of mitigation measures, providing information to the public, and identifying and filling data gaps.
Designate the Alaska Air Force Representative to the FAA as the focal point for sharing information received from the public regarding USAF flight activities with the MOAs.	All MOAs	Air Space Management Aviation Safety Biological Resources Recreation Subsistence Land Use	This would allow the Air Force and the FAA Alaskan Region Air Traffic Division to evaluate and address public comments and concerns.

Note: Unless otherwise indicated, mitigation would be year-round.

*Under Alternative A—Modified, the floors of YUKON 5 MOA and FOX MOA would be 5,000 ft AGL year-round.

[1]Area of Critical Environmental Concern (ACEC).

Table 8 Mitigation Measures Incorporated in FAA Aeronautical Study 95-AAL-042NR

Mitigation	MOA(s) Affected	Resource(s) Mitigated	Effectiveness
MOA Altitude (Floor or Ceiling) and Internal Boundary Changes			
Raise the minimum altitude (floor) to 5,000 ft AGL.	YUKON 5 FOX	Aviation Safety Biological Resources Recreation Subsistence Land Use	This would reduce single-event and average noise levels, and improve civil aviation access.
Raise the minimum altitude (floor) to 500 ft AGL.	BIRCH FALCON	Aviation Safety	This would improve civil aviation access along major VFR flyways, including the Alaska and Richardson highways and the trans-Alaska oil pipeline.
Raise the minimum altitude (floor) of the MOA to 2,000 ft AGL vice 100 ft AGL.	STONY B	Aviation Safety	This would improve civil aviation access along major VFR flyways,
Raise the maximum altitude (ceiling) to 5,000 ft AGL vice 4,000 ft AGL	BIRCH	Aviation Safety	Accomodate civilian aviation access along major civilian flight corridors, including the Alaska and Richardson Highways and the trans-Alaska oil pipeline.
Establish a civilian flight corridor through the MOA from ground surface to 3,000 ft MSL having boundaries located at 0.5 NM north of the Alaska Highway to the south side of the Tanana River. NOTE: Military exclusion area is from ground surface to 3,500 ft MSL with the same boundardies.	BIRCH	Aviation Safety	Accomodate civilian aviation access along major civilian flight corridors, including the Alaska Highway.

Table 8 Continued

Mitigation	MOA(s) Affected	Resource(s) Mitigated	Effectiveness
Establish two civilian flight corridors from the ground surface to 3,500 ft MSL: 1) Along the Alaska Highway - 2 NM either side of the Alaska Highway 2) Along the Richardson Highway - A two segment civilian flight corridor with the dividing line located between 63°41'13"N/145°54'48"W and 63°42'00"N/145°48'52"W (*NAD 83 Coordinates*) Northern Segment: Surface to 3,500 ft MSL, 2.0 NM East of the Richardson Highway to 0.5 NM west of the westernmost edge of the Trans-Alaska Pipeline or the Richardson Highway Southern Segment: 0.5 NM east of the Richardson Highway to the western edge of the Delta River. NOTE: the Military exclusion area has the same boundaries but extends from ground surface to 4,000 ft MSL.	BUFFALO	Aviation Safety	This would improve civil aviation access along major VFR flyways, including the Alaska and Richardson highways and the trans-Alaska oil pipeline.
Raise the Ceiling of the MOA from 10,000 ft MSL to FL 180 (approximately 18,000 ft MSL).	YUKON 3B	Aviation Safety	This would reduce single-event and average noise levels and potential impacts to the Fortymile National Wild River, Taylor Highway, and Walker Fork Campground; and improve civil aviation access to Eagle, Chicken, and Boundary from Tok.
Divide the MOA into horizontal and vertical sections and raise the floor to 2,000 ft AGL east and south of the line running from the northeast corner of YUKON 3 MOA to the intersection with the northeast corner of BUFFALO MOA (from 64°59'59"N, 141°05'00"W to 63°59'59"N, 143°00'00"W).	YUKON 3A (Low) YUKON 3B (Low) YUKON 3 (High)	Aviation Safety Recreation Subsistence	This would reduce single-event and average noise levels and potential impacts to the Fortymile National Wild River, Taylor Highway, and Walker Fork Campground; and improve civil aviation access to Eagle, Chicken, and Boundary from Tok.

Table 8 Continued

Mitigation	MOA(s) Affected	Resource(s) Mitigated	Effectiveness
MOA External Boundary Changes			
Change the eastern boundary of the MOA to exclude the area over YUKON 3B MOA. The boundaries are to be identical with those of YUKON 3A MOA.	YUKON 3 HIGH	Aviation Safety Recreatiuon Subsistence Land Use	This woud improve civil aviation access to Eagle, Chicken and Boundary from Tok.
Move the northwest boundary approximately 5 NM to the southeast (terminal points at 64°31'17"N, 146°09'31"W and 64°17'43"N, 147°03'29"W).	BIRCH	Aviation Safety Recreation Subsistence Land Use	This would avoid the Salcha River and Harding Lake areas. Resources and activities in these areas would not be exposed to direct aircraft overflights and associated noise levels.
Move the southeast corner approximately 20 NM to the west (terminal points at 63°30'00"N, 145°54'00"W and 62°30'00"N, 146°43'19"W).	FOX	Aviation Safety Biological Resources Recreation Subsistence Land Use	This would avoid the Gulkana and Delta National Wild Rivers, Tangle Lakes area, Richardson Highway, proposed West Fork of the Gulkana River ACEC[1], and trumpeter swan nesting areas. Resources and activities in these areas would not be exposed to direct aircraft overflights and associated noise levels.
Move the eastern boundary approximately 20 NM to the west (terminal points at 61°51'22"N, 153°14'44"W and 61°25'01"N, 153°38'39"W).	STONY A	Recreation	This would avoid Lake Clark National Park and Preserve, and prevent visitors and resources from being exposed to direct aircraft overflights and associated noise levels.
Move the eastern boundary approximately 10 NM to the west (terminal points at 60°52'33"N, 154°43'15"W and 60°18'58"N, 154°43'15"W).	NAKNEK 2	Recreation	This would avoid Lake Clark National Park and Preserve, and prevent visitors and resources from being exposed to direct aircraft overflights and associated noise levels.

Note: Unless otherwise indicated, mitigation would be year-round.

*Under Alternative A—Modified, the floors of YUKON 5 MOA and FOX MOA would be 5,000 ft AGL year-round.

[1]Area of Critical Environmental Concern (ACEC).

2.3 Environmentally Preferable Alternative

The Environmentally Preferable Alternative is, by a small difference in potential impact, the No Action Alternative. Although Alternative A—Modified (the Preferred Alternative) has been adjusted considerably to alleviate many potential environmental impacts, compared to the No Action Alternative, Alternative A—Modified would still make more airspace available for routine training, permit more aircraft to participate in MFEs, allow more MFE sorties, lower the floors of four previously utilized TMOAs, and permit supersonic operations in four previously utilized TMOAs. However, compared to the Proposed Action, Alternative A—Modified would improve aviation safety by reducing civil-military aviation interactions; raise the floors of several MOAs to reduce potential impact on aviation safety, wildlife, recreation, subsistence, and other resources; modify the boundaries of several MOAs to eliminate overflight of some residential areas (e.g., the Salcha River and Harding Lake) and Conservation System Units (e.g., Lake Clark National Park and Preserve). Table 8 compares the No Action Alternative and Alternative A—Modified and illustrates, using quantifiable variables, the rationale for this conclusion.

Table 9 Comparison Between the No Action Alternative (the Environmentally Preferable Alternative) and Alternative A -Modified (the Preferred Alternative)

Comparative Element	No Action Alternative (NAA)	Alternative A—Modified (Preferred Alternative)	Difference (Δ)
Total Area Affected (square miles)			
Permanent MOAs	37,760	36,630	decreased 1,130 sq mi
Previously Utilized TMOAs	33,210	24,150	decreased 9,060 sq mi
Total Area Available for Routine Training	37,760	60,780	increased 23,020 sq mi
Total Area Available for MFE Training	70,970	60,780	decreased 10,190 sq mi
Days Available for Routine Training			
Permanent MOAs	240	240	same as NAA
Previously Utilized TMOAs	0	240	added 240 days
Days Available for MFE Training	60	60	same as NAA
Maximum MFE Aircraft	85	100	added 15 MFE aircraft
Maximum MFE Sorties per MFE Day	150	200	added 50 MFE sorties
MOA Size			
BIRCH (EIELSON A TMOA)	810	610	reduced 200 sq mi
FOX (FOX 1 TMOA)	7,460	6,550	reduced 910 sq mi
STONY A	6,070	5,400	reduced 670 sq mi
NAKNEK 2	4,100	3,640	reduced 460 sq mi
MOA Floors			
YUKON 1	Surface	100 feet AGL	raised 100 feet
YUKON 2	100 feet AGL	100 feet AGL	same as NAA
YUKON 3 (YUKON 3 TMOA)	3,000 feet AGL	100 feet AGL (3A) 2,000 feet AGL (3B)	lowered 2,900 feet lowered 1,000 feet
YUKON 4 (YUKON 3 TMOA)	3,000 feet AGL	100 feet AGL	lowered 2,900 feet
YUKON 5 (YUKON 4 TMOA)	2,000 feet AGL	5,000 feet AGL	raised 3,000 feet
BIRCH (EIELSON A TMOA)	100 feet AGL	500 feet AGL	raised 400 feet
BUFFALO (BUFLO TMOA)	1,000 feet AGL	300 feet AGL	lowered 700 feet
FOX (FOX 1 TMOA)	3,000 feet AGL	5,000 feet AGL	raised 2,000 feet
STONY B	3,000 feet AGL	100 feet AGL	lowered 2,900 feet
Supersonic Operations to 5,000 feet AGL or 12,000 feet MSL, whichever is higher			
YUKON 1	MFEs only[1]	Yes	added routine supersonic[2]
YUKON 2	Yes[1]	Yes	same as NAA[2]
YUKON 3 (YUKON 3 TMOA)	No	Yes	added supersonic
YUKON 4 (YUKON 3 TMOA)	No	Yes	added supersonic
YUKON 5 (YUKON 4 TMOA)	No	Yes	added supersonic
FOX (FOX 1 TMOA)	No	Yes	added supersonic
STONY B	Yes[1]	Yes	same as NAA

[1] Supersonic operations would be authorized down to 5,000 feet AGL or 10,000 feet MSL, whichever is higher, under the No Action Alternative.

[2] With a higher minimum floor.

3.0 Considerations for Decision by the Air Force

Upon full consideration of the information set forth in the Alaska MOA Final EIS and the mitigation measures identified to avoid or minimize environmental harm, Alternative A--Modified as fully described in the EIS and as modified to comply with the airspace proposal approved by the Federal Aviation Administration, is selected for implementation. This alternative was selected for implementation since it provides the Special Use Airspace necessary to accomplish routine flying training and MFE training requirements while minimizing the impacts to the environment and aviation safety. A takings implication assessment of this decision has been completed in accordance with Executive Order 12630. This decision has been determined to be consistent with the Alaska Coastal Management Program.

4.0 Mitigation Plan

Upon full consideration of the information set forth in the Alaska MOA Final EIS and the mitigation measures identified to avoid or minimize environmental harm, Alternative A--Modified as fully described in the EIS and as modified to comply with the airspace proposal approved by the Federal Aviation Administration, is selected for implementation. This alternative was selected for implementation since it provides the Special Use Airspace necessary to accomplish routine flying training and MFE training requirements while minimizing the impacts to the environment and aviation safety. A takings implication assessment of this decision has been completed in accordance with Executive Order 12630. This decision has been determined to be consistent with the Alaska Coastal Management Program.

4.1 Use Restrictions-Major Flying Exercises

4.1.1 The Air Force will conduct no MFEs during September, December, or January in order to minimize potential adverse impacts to sport and subsistence hunting and other late season recreation and aviation activities.

4.1.2 The Air Force will provide a minimum two week interval between MFEs to minimize potential adverse impacts to wildlife and recreationists by providing quiet periods for wildlife and periods when outdoor activities may be planned to avoid MFEs.

4.1.3 The Air Force will not conduct MFEs the week prior to and the week after the 4th of July to minimize potential adverse impacts during one of the highest recreation periods of the year.

4.2 Use Restrictions-Supersonic Operations

4.2.1 The Air Force will limit supersonic operations in the Susitna MOA to Functional Check Flights (FCFs) and Operational Check Flights (OCFs) along an east/west line south of the Denali Park and Preserve to minimize potential adverse noise effects on Denali. Operations in and the need for Susitna MOA will be reevaluated upon the completion of the Department of the Interior's proposed Denali South Side Development project.

4.2.2 The Air Force will conduct all supersonic operations in all MOAs with the exception of Stony A and Stony B MOAs at or above 5,000 feet above ground level (AGL) or 12,000 feet mean sea level (MSL), whichever is higher, to minimize potential adverse effects of sonic booms.

4.3 Flight Avoidance Areas and Overflight/Operational Restrictions

4.3.1 The Air Force will extend the effective period of the existing peregrine falcon flight avoidance areas (2,000 feet AGL and 2 NM either side of river centerline) along the Charley, Kandik, and Yukon Rivers to include the period April 15 to September 15 to reduce noise levels and enhance civil aviation access along the rivers.

4.3.2 The Air Force will establish a flight avoidance area over the Nowitna National Wild River of 2,000 feet AGL and 2 NM either side of the river centerline yearly from May 15 to July 15 to reduce noise levels and enhance civil aviation access along the river.

4.3.3 The Air Force will, in consultation with state and Federal resource management agencies, restrict, as practicable, overflights of at-risk wildlife populations during critical lifecycle periods to reduce noise levels and the potential for negative behavioral responses.

4.3.4 The Air Force will establish a minimum overflight altitude of 3,000 feet AGL over Delta caribou herd calving areas as necessary between May 15 to June 15 to reduce noise levels and the potential for negative behavioral responses during this critical lifecycle period.

4.3.5 The Air Force will establish a minimum overflight altitude of 5,000 feet AGL over the Northern Alaska Range and Tanana Hill Dall sheep lambing areas and spring mineral licks as necessary between May 15 and June 15 and rutting areas as necessary between November 15 and December 15 to reduce noise levels and the potential for negative behavioral responses during these critical lifecycle periods.

4.3.6 The United States Air Force agrees to maintain a Memorandum of Understanding (MOU) with the United States Army, Alaska. This MOU will define five inter-service Coordination Areas. These areas are: Donnelley in Buffalo MOA, Firebird and Moose Creek in Yukon 1 MOA, Husky and Manchu in Falcon and Yukon 6 MOAs. This MOU will define prioritization, arbitration authority and scheduling protocol for these areas. The MOU will remain in effect as long as the applicable MOAs exist.

4.4 Chaff and Flares

4.4.1 The Air Force will facilitate and encourage the continued study of chaff alternatives and biodegradable chaff.

4.4.2 The Air Force will continue to limit use of flares in MOAs and Restricted Areas between June 1 and September 30 above 5,000 feet AGL and between October 1 and May 31 at and above 2,000 feet AGL, a respective 14 fold and 6 fold increase in flare burnout safety altitudes, which effectively eliminates the chances of a burning flare reaching the ground.

4.5 Communication and Information Exchange

4.5.1 The Air Force will continue to provide the Special Use Airspace Information Service (SUAIS) to assist in increasing the situational awareness of all aviators operating in Eielson, Birch, Buffalo, and Yukon 1, 2 and 3 MOAs.

4.5.2 The Air Force will continue to provide the in-state toll free number (currently 1-800-538-6647) to provide the public with a means of obtaining information concerning Air Force aviation activities and MFE schedules and conveying information and concerns to the Air Force.

4.5.3 The Air Force will notify Alaska press outlets of the annual MFE schedule for dissemination to the public to enable individuals to plan activities around the MFEs if they so desire.

4.5.3 The Air Force will notify Alaska press outlets of the annual MFE schedule for dissemination to the public to enable individuals to plan activities around the MFEs if they so desire.

4.5.4 The Air Force will continue the operation of the Alaska Civil-Military Aviation Council (ACMAC) by providing a statewide forum employing joint, direct dialogue to address issues created by impacts of aviation activities. The council will advise both the Commander, 11th Air Force and the civil aviation community as to recommended resolutions of the issues and the need-to-know information to be employed by both military and civil aircraft operators.

4.5.5 The Air Force, in conjunction with the Department of the Interior and the State of Alaska, will establish a Resource Protection Council to address issues concerning resource protection/mitigation, public information, and research and monitoring.

4.5.6 Designate the Alaska Air Force representative to the FAA as the focal point for sharing information received from the public regarding USAF flight activities within MOAs. This would allow the Air Force and the Alaskan Region Air Traffic Division of the FAA to evaluation and address public comments and concerns.

5.0 Mitigation Monitoring

The Air Force, as lead agency for the Alaska MOA FEIS under NEPA, will monitor the mitigation identified in the MOA Mitigation Plan to determine the effectiveness of mitigations in reducing potential adverse environmental and aviation safety impacts particularly during MFEs. In carrying out this responsibility the Air Force, by and through 11th Air Force, will:

5.1 Request funding not to exceed $500,000 per fiscal year beginning in FY98 and each year thereafter through FY02 to conduct studies recommended by the Resource Protection Council to monitor the effectiveness of the mitigation plan as regards the potential adverse impacts of MFEs. Additional mitigation monitoring studies after FY02 may be conducted upon mutual agreement between the Air Force and the Resource Protection Council subject to the availability of funds.

5.2 Consider the recommendations of the Resource Protection Council concerning potential adjustments of mitigation efforts as necessary to protect the environment while ensuring the efficiency of military flying training.

5.3 Accomplish Environmental Assessments or a Supplemental EIS as required by NEPA and 32 CFR Part 989 for changes in Air Force operations which cannot be the subject of a categorical exclusion (CATEX).

This ROD is made in consideration of Volumes 1 through 4 of the Final Alaska Military Operations Areas Environmental Impact Statementand the Council on Environmental Quality NEPA regulations, 40 CFR 1505.

Secretary of the Air Force

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