

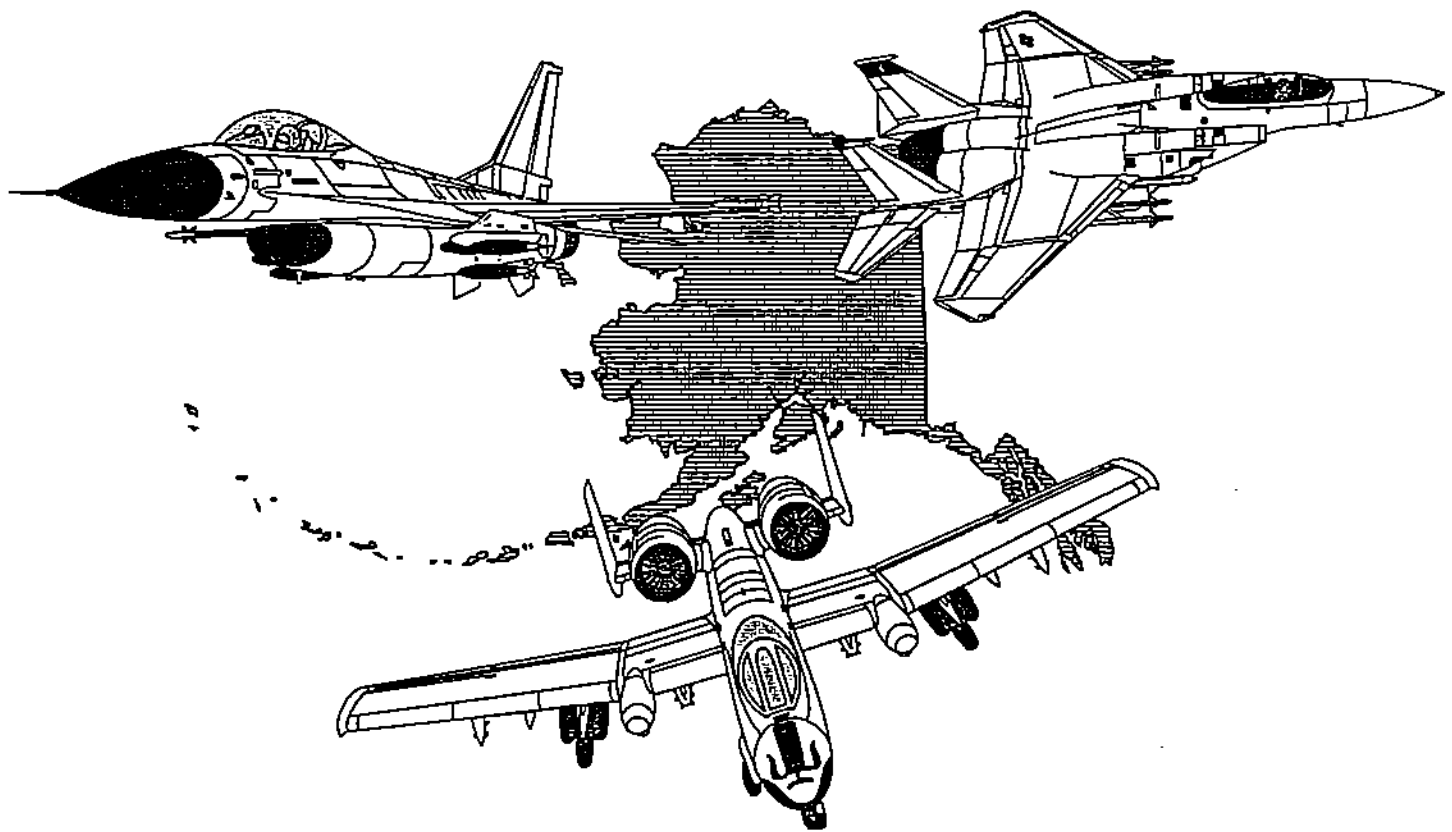
FINAL

Environmental Impact Statement

ALASKA MILITARY OPERATIONS AREAS

VOLUME IV

- Comments and Responses



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



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CHAPTER 1

RESPONSE TO COMMENTS

1.1 Introduction

This volume contains the Air Force's responses to comments received on the Draft Environmental Impact Statement for Alaska Military Operations Areas (Draft EIS). A summary of the public comment process, including the approach used to analyze the comments, is presented in Chapter 1. Chapter 2 contains representative substantive comments and the Air Force's responses to them. To make it easier to differentiate between them, comments are printed in a different typeface than responses and each comment is separated from its response by a half-line. Publications cited in the responses can be found in the appropriate bibliography in Chapter 5, Volume II. Comment letters and verbatim transcripts from the public hearings are reproduced in Chapter 3. Three-digit accession numbers appear in the upper right-hand corner of each letter and transcript, which are arranged sequentially by accession number. The letters and transcripts have been annotated with alpha-numeric codes along the margins, which correspond to the comments and responses found in Chapter 2. Chapter 4 contains indexes of the letters and transcripts and response codes. The first index lists the name of the individual or organization commenting and provides the accession number at which the original comment letter or transcript can be found in Chapter 3. The second index is arranged sequentially by accession number and lists the comment/response codes assigned to each letter or transcript. To find a specific comment letter or transcript, use the name index to determine the accession number assigned to it; then use the comment/response code index to identify the codes assigned to the letter or transcript, and turn to the corresponding comment/response in Chapter 2. The third index is organized alpha-numerically by response code and is a key concept directory of the codes.

It is important to note that individual responses were not prepared for every input received during the public comment period. For the purposes of this EIS and in accordance with CEQ guidelines, like comments were grouped and responses were designed in a collective, rather than individual, manner.

1.2 Distribution of the Draft EIS

The Notice of Availability (NOA) of the Draft EIS was published in the *Federal Register* on September 2, 1994. Announcements of the availability of the Draft EIS and plans for public hearings were subsequently published in Alaska regional and local newspapers. The Air Force distributed 176 copies of the Draft EIS and over 600 copies of the Executive Summary. Copies of the Draft EIS were sent to community libraries throughout the project area and to the National Technical Information Service (NTIS), a national clearinghouse for federal documents.

Local media outlets provided coverage of the Draft EIS over the course of the 3-month public comment period. Several agencies and organizations also sent announcements to their constituents informing them of the Draft EIS and encouraging them to comment. Air Force staff participated in numerous meetings of business and professional organizations, advocacy groups, and with various agencies and elected officials. The briefings given at these meetings helped publicize the nature of the Proposed and Alternative Actions and the availability of the Draft EIS for review and comment.

The public comment period began September 2, 1994, with publication of the NOA, and closed November 30, 1994. The public review period was originally scheduled to end October 31, 1994, but was extended to November 30, 1994, for a total of 90 days. Verbal comments were also recorded at 15 public hearings. Some 214 written comments were provided by federal, state, and local governmental agencies; special interest

organizations; Alaska Native organizations; businesses; and individuals. A statewide toll-free phone number (800-538-6647) was also established to receive comments, and approximately a dozen were phoned in during the comment period.

1.3 Summary of Public Comment

Of the written comments received during the 90-day comment period, 3 were from federal agencies, 3 from state agencies, 5 from local governments and agencies, 15 from special interest groups (predominantly aviation and recreation), 19 from businesses and business organizations, 2 from Alaska Native organizations, and 151 from individuals. The majority of comments (111) came from Alaska residents: 35 from Fairbanks, 22 from Anchorage, 9 from Palmer, 6 from Tok, 1 from Central, 13 from Glennallen, and 25 from other Alaska communities. Forty comments were received from out of state as well. To put this into some perspective, 214 (the total number of comments received) is approximately 0.1 percent of the combined population of the communities in which hearings on the Draft EIS were held.

The issues raised in the written comments, in descending order of frequency, were: wildlife, airspace management and aircraft operations, noise, aviation safety, recreation, subsistence, socioeconomics, land use, and the National Environmental Policy Act (NEPA) process. A number of respondents expressed support or opposition for an alternative or a specific Military Operations Area (MOA). The No Action Alternative received the most supporting comments (102), while Alternative A was a distant runner-up with 27 respondents supporting it. The Proposed Action and Alternative B received negligible support. Respondents also suggested 161 mitigation measures or alternatives for the Air Force to consider.

Of the comments received, a substantial number were either form or modified form letters. The remainder were letters written by individuals or organizations. Sixteen comments postmarked after November 30, 1994, were received and reviewed. Although they are not reproduced in the EIS, the issues they raised were similar to those raised by others and are addressed in the responses.

Public hearings were held in 15 communities around Alaska¹: Anchorage (11), Arctic Village (5), Chalkyitsik (5), Circle Hot Springs (6), Delta Junction (3), Eagle (4), Fairbanks (49), Fort Yukon (19)², Glennallen (16), Lime Village (1), McGrath (0), Sleetmute (11), Talkeetna (0), Tok (11), and Venetie (6).

1.4 Comment Analysis Process

The Air Force took the comments on the Draft EIS very seriously. There were many personal letters and oral testimonies from residents of Alaska, especially rural residents, and from past and/or future visitors to the state. They provided a unique and invaluable opportunity to learn from and consider the disparate personal, professional, and organizational opinions of those affected by the Proposed and Alternative Actions. All comment letters and hearing transcripts were analyzed for their content and the different perspectives they offered. The comments can be broadly categorized into four groups: observations pertaining to the content or accuracy of the Draft EIS; questions or suggestions related to impact analysis methodologies; statements regarding the Air Force's NEPA process, including the range of alternatives; and expressions of opinion or preference. Where comments presented new, substantive information or ideas that warranted changes, the text of the Final EIS was revised accordingly. Reference to the revised section(s) is made in the responses to specific comments. Comments in the last group may not require any response in the EIS because the decision process attempts to recognize and balance diverging views.

¹The number of attendees who registered is shown in parentheses; however, as it is likely that some individuals chose not to register, attendance may have been slightly higher at some hearings than is indicated.

²A second hearing was held in Fort Yukon to accommodate residents of the community and outlying area who were unable to attend the first hearing. There were 3 attendees at the first hearing and 16 at the second.

After analyzing the substantive comments, the Interdisciplinary Team (IDT) grouped related comments and coded them. Comment letters were coded for basic demographic information and content. The purpose of coding was to avoid duplication of effort and to ensure the responses provided would be useful to the reader and the decision-maker. Each comment letter and transcript was read at least twice—the first time to provide context and an overall sense of the content, then a second time to select and code specific comments relevant to the concerns expressed. Specific comments in each letter or transcript were marked and numbered. This process resulted in 161 coded comments, which formed the basis for the responses found in Chapter 2.

Public hearings held in smaller communities were recorded by a member of the IDT and later transcribed by a court reporter. Because of the informal nature of hearings in these smaller communities (i.e., attendees coming and going, preferring to speak without using a microphone, etc.), transcripts from some these meetings contain a number of "unintelligibles." Consequently, a member of the IDT listened to each tape and, where possible, deciphered the unintelligible remarks. However, some transcripts still contain unintelligible words or phrases.

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CHAPTER 2

COMMENTS ON THE DRAFT EIS AND AIR FORCE RESPONSES

Chapter 2 contains representative substantive comments received during the Draft EIS comment period and the Air Force's responses to them. To make it easier to differentiate between them, comments are printed in a different typeface than responses and each comment is separated from its response by a half-line. Publications cited in responses to comments can be found in the appropriate bibliography in Chapter 5, Volume II. Chapter 2 is organized by topic as follows:

■ AIQ	Air Quality
■ AIR	Airspace Management and Aircraft Operations
■ ALT	Alternatives
■ BIO	Biological Resources
■ CUL	Cultural Resources
■ CUM	Cumulative Impacts
■ EDT	Editorial Comments
■ HAZ	Chaff, Flares, and Hazardous Operations
■ LAN	Land Use
■ MIT	Mitigation
■ NOI	Noise
■ OTH	Other Comments
■ PAN	Purpose and Need
■ PRO	NEPA Procedure
■ REC	Recreation Resources
■ SAF	Aviation Safety
■ SOC	Socioeconomics
■ SUB	Subsistence Resources

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2.1 Air Quality

AIQ-001 COMMENT: There will be chemical contamination on the ground, and probably . . . fuel exhausts will cause ozone depletion. The sensitivity of the polar regions to ozone depletion is well known.

The Draft EIS fails to consider emission factors for all military aircraft types which will be utilizing the proposed SUA, not just the aircraft stationed in Alaska, including but not limited to all allied and U.S. aircraft. The Draft EIS fails to provide information on mitigation measures which could be taken if aircraft pollutant emission exceed Ambient Air Quality Standards. What are the cumulative impacts of these proposed operations including highway vehicle, maintenance vehicle, ground equipment, fire fighting and corrosion control emissions as well as aircraft emissions? What impacts will aircraft and vehicle fumes have on the flora of Alaska? What are the cumulative air quality impacts of all military activities? What are the health impacts to human and wildlife from aircraft pollutant emissions? What are the health impacts of the exhaust pollutants sulfur dioxide, unburned hydrocarbon, carbon monoxide, oxides of nitrogen and of particulate matters by emissions from the aircraft? Will gaseous emissions from jet engines and the photochemical behaviors of the wide range of emission compounds include the major volatile species: Ethane, Ethene, Propane, 2-Methylpropane, n-Butane, 2-Methylbutene-2, Trans-2 Butane, n-Pentane, Cyclohexane, Benzene, Toluene, Dodecane, Tetradecane, Hexadecane, Naphthalene, Anthracene, Chrysene, Benzopyrene, Formaldehyde, Acetaldehyde, Acrolain, and Benzaldehyde? Will flights at these levels be below the mixing height so these elevated pollutant emission will be dispersed toward the ground? What are these contaminants and their potential environmental impacts?

The contribution to localized Alaska air quality and global pollution, global warming, and ozone depletion from jet aircraft flights (emissions and fuel consumption) is greatly downplayed in the Draft EIS. For example, the findings by the General Accounting Office in the January 1992 report to the Chairman, Subcommittee on Oversight and Investigation, Committee on Energy and Commerce, House of Representatives entitled *Air Pollution: Global Pollution from Jet Aircraft Could Increase in the Future*.

RESPONSE: Some commenters have alleged that we have failed to adequately consider or downplayed the effect of our aircraft operations on Alaska's air quality and on ozone depletion and global warming. The EIS adequately examines the National Ambient Air Quality Standards (NAAQSs) status of those areas of Alaska affected by our flights and the allowable emissions in those areas, and accurately states the effect of our aircraft emissions.

NEPA does not generally have extraterritorial effect. Executive Order 12114 (3 *CFR* 356 [1980]), however, requires an EIS for "major Federal actions significantly affecting the environment of the global commons outside the jurisdiction of any nation (e.g., the oceans or Antarctica)." The definition of "global commons" adopted by EPA defines it as "that area (land, air, and water) outside the jurisdiction of any nation" (40 *CFR* 6.1003).

Assuming *arguendo* that an EIS is always required to examine the effects of major Federal actions on the global commons no matter where the action takes place, airspace, excepting outer space, has not been recognized by the United States as being part of the global commons (i.e., U.S. refusal to agree to caps on domestic global warming gasses at the Rio Earth Summit). Although there is no universally accepted definition of where airspace ends and outer space begins, it is generally accepted that aircraft fly in airspace and orbiting spacecraft are in outer space (Bosco 1990). The Chicago Convention of 1944 explicitly recognized that "every state has complete and exclusive sovereignty over the airspace above its territory." All of the actions covered by this EIS take place in and affect U.S. territorial airspace and not the U.S. recognized global commons of the outer space.

Assuming, again for the sake of argument, that the global commons is in some way affected by the flight activities covered by the EIS, the extent of that impact is not significant. The commenters have cited a General Accounting Office (GAO) report entitled *Global Pollution From Jet Aircraft Could Increase in the Future* (GAO 1992) for the proposition that jet aircraft adversely affect the U.S. and global environments. Despite its title, and the use of it made by commenters, the report concludes that "Jet aircraft have a minimal impact on pollution problems at ground level" (page 1), that "Jet aircraft contribute little to global pollution in the upper atmosphere, especially compared with contributions from other sources" (page 2), that "Jets currently contribute a relatively small amount of carbon dioxide emissions to global pollution" (page 6), and that "Emissions of nitrogen oxides from supersonic jets currently have a small impact on upper-level ozone depletion" (page 6).

2.2 Airspace Management and Aircraft Operations

AIR-001 COMMENT: What are the coordinates of all airspace associated with the proposed action, including MTRs? What are the proposed training scenarios on the MTRs?

RESPONSE: Please refer to Volume III, Appendix B of the EIS for the exact coordinates of all the airspace included in the Proposed and Alternative Actions. Specific coordinates for the MTR structure can be located in the *DoD Flight Information Publication (FLIP AP/IB), Area Planning, Military Training Routes, North and South America*. *FLIP AP/IB* provides text and graphic descriptions plus operating instructions for all MTRs (IR, VR, and SR) and refueling tracks/anchors. It is revised every 56 days.

AIR-002 COMMENT: What impact will this proposal have on the Military Airspace Management System (MAMS)?

RESPONSE: The Military Airspace Management System (MAMS) is a joint DoD program designed to automate airspace scheduling, utilization, and reporting. It will provide automated service to a variety of personnel, including airspace requestors, schedulers, airspace managers, database administrators, and communications administrators. It will be PC-based and is not an airspace de-confliction system. MAMS currently is in the source selection process and should be fielded by the late 1990s. The proposed modifications and utilization of the MOAs considered under any of the alternatives in this EIS would not impact MAMS, nor are they dependent on MAMS development. Alaskan airspace will be integrated into MAMS once the system is fielded.

AIR-003 COMMENT: Has the Air Force submitted annual Restricted Area utilization reports? What has been the utilization of the restricted areas?

RESPONSE: The Air Force prepares an *Annual Utilization Report for the Restricted Areas* encompassing the three air-to-ground weapons ranges in Alaska (Oklahoma/R-2202, Stuart Creek/R-2205, and Blair Lakes/R-2211). The latest report for fiscal year (FY) 1994 showed a total of 7,794 sorties on these three ranges.

AIR-004 COMMENT: The Draft EIS does not adequately describe air refueling activities associated with operations in Alaska.

RESPONSE: Air refueling (AR) is one of many skills Air Force pilots must maintain to adequately perform their mission tasks. Air refueling tracks and anchors are established throughout the state and are used when needed for training or to extend the range and/or flying time for military aircraft to complete their assigned missions. All published air refueling areas are located in positive control airspace (above Flight Level [FL] 180 and, hence, above all MOAs/TMOAs). Some of these areas overlie existing or proposed MOAs, while others do not. Descriptions of the exact locations of the AR tracks and anchors can be found in DoD publication *FLIP AP/IB* and the *Alaska Supplement*. The alternatives addressed in this EIS do not include any new air refueling areas, nor does the Air Force plan to establish any air refueling areas within the MOA airspaces.

AIR-005 COMMENT: The Draft EIS fails to provide information on weather minima.

Please pass to the appropriate squadron commander that the people of Stony River ask that your F-15s and F-16s take care to not fly directly over the village at low altitudes.

Flying 300 feet over residences and wildlife would be disturbing.

RESPONSE: Air Force weather minima for operations under visual flight rules (VFR) are the same as those required for civil VFR flight operations and are outlined in *Air Force Instruction (AFI) 11-206* (formerly *AFR 60-16*), Visual Flight Rules, and in *Federal Aviation Regulation (FAR), Part 91.155*, Basic VFR Weather Minima. Flights within the MOAs could also be conducted under instrument meteorological conditions (IMC) when all aircraft are under positive radar control by the Airborne Warning and Control System (AWACS) or ground-control radar or if the MOA contains Class G airspace.

AFI 11-206 further defines minimum altitudes for overflight to include:

- Over congested areas (cities, towns, settlements) or groups of people, at least 1,000 feet above the highest obstacle with a 2,000-foot radius of the aircraft;
- Over non-congested areas at an altitude of not less than 500 feet above the surface except over open water, in MTRs, or in sparsely populated areas. Under such circumstances, pilots must not operate aircraft closer than 500 feet to any person, vessel, vehicle, or structure.

Inquiries or reports about military aircraft operations can be phoned in to the 11th Air Force's toll-free information hotline at (800) 538-6647.

AIR-006 COMMENT: The Draft EIS fails to provide information on the currency of SUA/MTR briefings and the established procedures for updating the briefings.

Impress on military pilots how busy the civilian aircraft really are in the MOAs.

RESPONSE: The responsibility for maintaining and presenting the required briefings for SUA and MTRs lies with the units (3 WG or 354 FW) that control the airspace. New pilots assigned to the wings, plus aircrews participating in exercise activities, receive the appropriate briefings before their first flights in the airspace. In addition to the briefings, the first flights in the airspace are usually "familiarization" flights to reinforce the information briefed. Scheduling agencies throughout the Air Force are required to provide a current SUA briefing prior to scheduling the SUA. For non-local users of the airspace, telephonic/fax briefings are required to relay the current information prior to scheduling these non-local users. These briefings include information on environmental/noise sensitive areas and the type of civilian aircraft that could be encountered in or around the MOAs and MTRs. Briefings are periodically reviewed for content and accuracy. If an immediate change of aircrew operations is needed, it can be implemented rapidly through the Flight Crew Information File (FCIF), which must be signed off by each crew member before each flight.

AIR-007 COMMENT: The Draft EIS fails to provide information on what type of communications systems, radio frequencies/telephone lines will coordinate/monitor activities?

Designate a CTAF frequency and assure military aircraft monitor it when using MOAs.

The Air Force should aggressively pursue improvement of their VHF communications capability throughout the proposed MOAs.

I have never been able to obtain an instrument clearance within a MOA.

We encourage the Air Force to accelerate adoption of technologies that will better enable it to monitor aircraft in the MOAs.

RESPONSE: Communications associated with flight operations in the state are a part of the infrastructure associated with existing operations. If additional radio frequencies are needed, then they will be requested through the appropriate procedures. The EIS did not identify a need for additional communications capabilities; however, the Air Force is investigating the addition of toll-free (800) service for civil access to Air Force scheduling information, and has also requested an additional VHF frequency for automated broadcast of Air Force flight information to civil aviators in the vicinity and east of Eielson AFB (see response to Comment OTH-012). The Air Force is also adding more radio repeaters to cover areas in eastern BUFFALO and FOX MOAs.

AIR-008 COMMENT: The Draft EIS fails to analyze the economic impacts of airspace restrictions on activities that depend on small aircraft operations. It fails to analyze the conflicts between military overflights and scientific and air taxi/civilian flights in the MOAs and MTRs.

The EIS must address the conflicts, especially in low-elevation airspace, between military training flights and aerial surveys. Pilot biologists are alert to other aircraft, but many of them are conducting counts simultaneously with flying, making it virtually impossible to "see and avoid" aircraft flying as fast as the speed of sound. They are often out of radio and phone contact for days at a time and are not able to get updated information on whether military flights are planned for remote areas or in poor weather conditions.

We are concerned about civil access rights to the airspace if the TMOAs are converted.

RESPONSE: There is no evidence that airspace restrictions on small aircraft operations, scientific, or air taxi/civilian flights would create adverse economic impacts. MOAs and MTRs do not prohibit non-participating civil aircraft operations; they are only a means of confining certain types of military flight operations. The existing permanent MOAs have been charted for nearly 20 years, and temporary MOAs used today have been used in one form or another for at least 10 years under various names and configurations. The Air Force has continually attempted to mitigate, in a real time fashion, any potential impacts to special civil air activity, such as wildlife monitoring flights or movement of hazardous materials, when it has been made aware of such activities. Other mitigation measures are being considered that would enhance access to various areas serviced by air. These mitigations include a higher floor (2,000 feet AGL) in the southeastern half of the proposed YUKON 3 MOA (overlying the communities of Eagle, Eagle Village, Boundary, and Chicken); providing civil flight corridors through the BUFFALO MOA at 500 feet AGL and between 4,000 and 6,000 feet MSL; and raising the floors of the EIELSON, BIRCH, and FALCON MOAs to 500 feet AGL. The Air Force does not expect that implementing any alternative in this assessment would cause any adverse economic impacts to the aviators or communities under or near the proposed airspace.

AIR-009 COMMENT: The Draft EIS fails to provide information and mapping of routes which might be utilized under the "No Action" Alternative. Just how will aircraft travel to these sites? What MTRs are utilized by activities at bases described as part of the "No Action" Alternative?

RESPONSE: Routine training sorties travel to the existing permanent MOAs via whatever routings they file in the VFR or IFR flight plans. The altitudes flown depend on the distance to the particular airspace and, except for a very short flight from Eielson AFB to the western reaches of YUKON 1 MOA, approximately 8 NM, the routes would be expected to be flown at medium- to high-altitudes (10,000 feet MSL up to FL 330/350). Flights to the MOAs/TMOAs during an MFE do not utilize MTRs and, as in the case of routine training, are at medium to higher altitudes for the round trip. In some limited cases, some MFE aircraft could be flying at lower altitudes when a close air support scenario exercise is ongoing and most of the low-altitude flying is concentrated in the Stuart Creek and Oklahoma air-to-ground weapons ranges and not in the MOAs. MTRs used for routine training are described in sections 3.2.2.3, 3.2.3.3, 3.2.4.3, and 3.2.5.3, "Other DoD Aircraft Operations," along with maps of the MTR structure in each region.

AIR-010 COMMENT: What does air-to-air surge training involve and what are the effects?

RESPONSE: Surge training is an integral part of measuring the combat capability of various elements of a wing. Air-to-air surge training, as might be conducted by the 3 WG at Elmendorf AFB, would encompass a period from one to several days where the wing would generate and fly at higher than normal aircraft sortie rates and simulate combat conditions. This tests the capabilities of both aircrew and maintenance personnel to sustain this operation, along with the other infrastructure of the wing from the supply system to the dining facilities. All activities continue to be carried out under the normal "peacetime" training rules as used day-to-day for routine training. Because only a finite number of flying hours is budgeted for each wing, any increase in routine training rates would be met with a corollary reduction in routine training rates in the days either immediately preceding or following the surge exercise. Surge training would normally not occur more than once each calendar quarter.

AIR-011 COMMENT: A better description of low-altitude air-to-ground training sorties is needed in the EIS. Also how does this compare to an air-to-air training sortie?

RESPONSE: Volume III, Appendix C of the EIS provides information on the operational missions (real world responsibilities) assigned to the forces based in Alaska, the tactical flying training program used to prepare for these operational taskings, and general aircraft and munitions characteristics. Descriptions of the different facets of air-to-ground and air-to-air training are provided in section C.2.

AIR-012 COMMENT: Many of the proposed areas for low-altitude overflights occur over wilderness and other sensitive areas and thus the Air Force is failing to comply with NPS/FAA policy committed to minimizing flights below 2,000 feet AGL over these areas.

RESPONSE: The 2,000-foot AGL restriction mentioned above is not mandatory. The FAA *requests* that pilots voluntarily observe a 2,000-foot AGL restriction over areas such as national parks, recreation areas, wilderness and primitive areas, and wild and scenic rivers. The Preferred Alternative would mitigate many such areas within the Region of Influence by establishing higher MOA floors over sensitive areas, changing MOA boundaries to exclude sensitive areas, and minimizing operations during high-use times such as the 2 week period around the 4th of July.

AIR-013 COMMENT: Does this EIS automatically include renewal authority for the waivers to supersonic operations below 30,000 feet in YUKON 1 and YUKON 2?

RESPONSE: The completion of the EIS is only the beginning of the process to renew authority to conduct supersonic operations below 30,000 feet MSL or to permit these in areas where they are currently prohibited. Following completion of the EIS and the issuance of a Record of Decision (ROD), Headquarters Air Force will evaluate the environmental documentation and make a determination on the information presented. Such a determination is normally permitted for a period of up to 3 years. The current approval authority for MFE operations in YUKON 1 and YUKON 2 MOAs would require renewal approval by April 1, 1996, regardless of the decisions being considered under this EIS.

AIR-014 COMMENT: The SUSITNA MOA is particularly noted for conflicts with noise and the effects on lifestyles, peaceful enjoyment of residence, and on wildlife.

RESPONSE: Under the Preferred Alternative being considered by the Air Force, it is anticipated that operations in the SUSITNA MOA would decrease over existing levels. The creation of the FOX MOA, allowing day-to-day routine training, would reduce needs for the close-in SUSITNA MOA. It is expected that if the FOX MOA is approved, operations in the SUSITNA MOA would decrease to whatever is required for short-duration Functional Check Flights (FCFs) and training in the very basic flight maneuvers. Further, the Air Force has already instituted a restriction on supersonic operations in the SUSITNA MOA to an east-west line in the southern half of the MOA and away from the Denali area to the north.

AIR-015 COMMENT: At the very least, the FAA should conduct public hearings before deciding on any course of action.

RESPONSE: The Air Force is preparing an airspace proposal for the Preferred Alternative (Alternative A—Modified). This proposal will be circularized by FAA throughout the affected communities (as identified by FAA). Informal airspace meetings will be conducted by the FAA, and written comments will also be accepted. This process is expected to conclude before the Air Force issues a Record of Decision (ROD), and the information gathered will be considered by the decision-maker before the ROD is issued.

AIR-016 COMMENT: I have already encountered military aircraft at high speeds and low altitude outside of the MOAs. I assume that these flights are unauthorized.

I have observed that total disregard the Air Force had for the 3,000-foot AGL floor that was supposedly in effect (in the FOX TMOA). Clients and I on the ground confirmed this as being an almost continuous breach of the rules, occurring up to three times daily with F-15s flying at high speed/low level along the Susitna River outside the approved low level training routes, well below 3,000 feet above the ground.

Airplanes flying high speed on MTRs below 1,500 feet and crossing airways serving western Alaska threaten the safety of people living in the western part of the state.

RESPONSE: Though it is difficult to determine the exact location described by the comments, the Air Force believes that these comments are describing operations along MTR 937, which underlies the southern half of the area of the proposed FOX MOA. This being the case, these operations would have been authorized as these MTRs were charted and opened for use in the summer of 1994. If these operations occurred off these MTRs where high-speed, low-altitude operations are not permitted, then they indeed would have been a violation of existing Air Force and command directives.

The location of the MTRs is clearly charted on the civil sectional maps available to all aviators. Route planning taking these MTRs into account will lessen the potential for midair collisions and enhance the aviation safety for both military and civil aviators together.

AIR-017 COMMENT: In the comparison of Alternatives the Air Force says there is no Significant Adverse Impact on Aircraft Operations and Aviation Safety. It never defines what that might be. It does admit there would be adverse impact on interaction with civilian aircraft.

RESPONSE: Section 4.2.1.1 of the EIS explains how impacts to airspace management, aircraft operations, and aviation safety were assessed. Adverse impacts were associated with areas where Air Force activity would occur below 3,000 feet AGL and where civil aviators might occasionally postpone activities during certain times of the day to avoid potential conflict with military aircraft operations. Significant adverse impacts were identified when it was possible that low-altitude flight operations might jeopardize aviation safety and significantly increase midair collision potential. The Air Force identified one area (the TANANA MOA—Alternative B) as potentially creating a significant adverse impact on flight operations in that area. Since the Draft EIS was published, the FAA has asked that assessments of potential impacts to aircraft operations and aviation safety, including increases in midair collision potential, be deleted from the EIS. The FAA will assess these areas through the circularization process with the public.

AIR-018 COMMENT: I am concerned that operations in the STONY MOAs will not be reduced, but will in fact be increased under this proposal.

RESPONSE: It is expected that, if the Preferred Alternative is adopted, operations in the STONY MOAs will remain the same or decrease. The establishment of the FOX MOA, to the northeast of Elmendorf AFB, will provide alternative training areas for the F-15Cs from Elmendorf AFB. It is not the intent of the Air Force to abandon training in the STONY MOAs as they are the site of the Alaska Air Combat Maneuvering Instrumentation (ACMI) system. This ACMI system records air-to-air training activity in the STONY MOAs and is used to debrief and evaluate each training mission.

AIR-019 COMMENT: As a canoeist on rivers within the YUKON MOA we are frequently harassed by low flying A-10s and other jet aircraft flying at 300-500 feet above the rivers.

On the 22nd of November in the afternoon, two military helicopters "buzzed" our house flying barely 100 feet above the ground.

There have been several fatal midair collisions in this area (the area surrounding the Blair Lakes restricted area R-2211), and I have personally had to execute abrupt collision-avoidance maneuvers below 1,000 ft AGL outside of R-2211 to avoid colliding with A-10 aircraft.

RESPONSE: Safety records back to 1983 disclose no midair collisions between Air Force and civil aircraft. Also, Air Force records on near misses indicate that from January 1991 through June 1994, the only reported near misses occurred in the immediate vicinity of either the Eielson or Elmendorf AFB traffic patterns. No near misses have been officially recorded in any of the MOAs/TMOAs during routine or MFE operations. The Special Use Airspace Information Service (SUAIS) provides coverage in the proposed EIELSON, BIRCH, and BUFFALO MOAs where many civilian pilots transit along the Richardson Highway (see section 3.2.2).

Flight activity around R-2211 is congested for both the Air Force and civil aviators. R-2211 is used extensively as a scored range to train basic weapons delivery tactics. A-10s could be operating in the vicinity of R-2211 to transit between the restricted area and Eielson AFB or the YUKON MOAs. Low-altitude tactical navigation (LATN) training by A-10s (below 250 knots) could be occurring in the area; however, since early 1995, the commander at Eielson AFB has restricted A-10 LATN training to the areas east of the YUKON MOAs.

Please refer to the response to comment AIR-005 for a description of basic flight altitude restrictions. In addition, *AFI 11-206* stipulates that "Helicopters . . . may operate at lower altitudes than the minimums . . . if they do not create a hazard to persons or property on the surface."

AIR-020 COMMENT: The Executive Summary of the Draft EIS states that "use of TMOAs for recurring MFEs also conflicts with the FAA's intended use of this type of airspace—a procedural concern." Explain the intent of TMOAs and the process for their use.

RESPONSE: FAA Handbook 7400.2, *Procedures for Handling Airspace Matters*, provides guidance on submission, processing, and approval of proposals to establish Temporary MOAs (TMOAs). It states, "The provision for Temporary MOAs is in recognition of the military's need for additional airspace to periodically conduct readiness exercises that supplement routine training. When it is known that this need will occur on a regular and continuing basis, the necessary airspace should be considered for establishment as a Permanent MOA with provisions for its activation by NOTAM/Special Notice disseminated well in advance of the scheduled activity." When existing airspace is inadequate to accommodate short-term military training exercises, Temporary MOAs may be established for a period not to exceed 30 days. Temporary MOA proposals are submitted to FAA Regional Air Traffic Division (in this case, the Alaska Regional Office) through the appropriate military representative at least 4 months prior to the desired effective date.

AIR-021 COMMENT: Future airspace revisions will require that a mechanism exist to add airspace needed for new and relocated public use airports to the description of flight avoidance areas within the MOAs.

RESPONSE: The Air Force recognizes that the situations underlying the MOAs is not static. If new or relocated public use airports open under any of the MOAs, the Air Force will establish appropriate exclusion zones, as required by FAA regulations, and process the changes to the airspace description in FAA Handbook 7400.8. The Air Force has already established the required exclusion area around the newly designated Coal Creek airport.

AIR-022 COMMENT: Several existing MOAs, such as the NAKNEK MOAs, are proposed in such a manner that a change to FAA Handbook 7400.8 will be required. The proposed FOX MOA (with its two different floors) is not described in a manner compatible for inclusion in FAA Handbook 7400.8.

RESPONSE: All legal descriptions of the MOAs being considered in this EIS will be reviewed by and coordinated with the Regional FAA Flight Standards Branch to ensure conformity with FAA practices and procedures for identifying and charting SUA.

AIR-023 COMMENT: Several technical deficiencies were noted in the description of the TMOAs and air operations (air route traffic control procedures) that need to be corrected in the Final EIS.

RESPONSE: These descriptions were reviewed for accuracy and were corrected.

AIR-024 COMMENT: The FAA Anchorage Air Route Traffic Control Center (ARTCC) is concerned that the simultaneous operation of the FOX and SUSITNA MOAs and higher Air Traffic Control Assigned Airspace (ATCAAs) may interfere with their ability to provide separation along the north-south air routes between these two MOAs.

RESPONSE: The Air Force understands the FAA's concern regarding simultaneous activation of the FOX and SUSITNA MOAs and the potential disruption of IFR corridors for non-participating aircraft. If the FOX MOA is established, any limits on activation should be identified in the revised Letter of Agreement (*Description of Alaskan Military Airspace*) between the Anchorage ARTCC and the 11th Air Force.

2.3 Alternatives

ALT-001 COMMENT: The EIS should contain an analysis based on a real No Action Alternative. Due to the fact that the initial aircraft conversion and subsequent related actions such as MFEs and MTRs were only considered in separate EAs instead of a comprehensive EIS, this new document should consider the proposed action as starting with the first change in 1991 (or whenever the beddown of F-15s and F-16s occurred). A true "No Action" alternative would not include the new temporary MOAs which have been designated, or any other new training situations (MTRs or MFEs) or facilities built, since 1991. Evaluation of impacts should reflect changes from the situation prior to the conversion to F-16s; e.g., for the noise analysis, comparisons of numbers of low-elevation flights and sonic booms, mapping and acreage of proposed airspace allocations (MTRs, MOAs, MFEs, etc.) and other training infrastructure and land use.

RESPONSE: There are two distinct interpretations of "no action." The first situation involves an action where ongoing programs will continue. In other words, "no action" is "no change" from the *status quo* because to construct an alternative that reverses history would be a pointless academic exercise. Therefore, the "no action" alternative may be thought of in terms of continuing with the present course of action. The second interpretation of "no action" involves cases where the proposed activity would simply not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity or an alternative activity to go forward. In either case, analysis of the "no action" alternative provides a benchmark, enabling decision-makers to compare the magnitude of environmental effects of the action alternatives. (46 *Federal Register* 18026) as amended by 51 *Federal Register* 15618).

A proponent may exercise discretion in defining the range of alternatives to be considered, including the No Action Alternative. The real key to defining the No Action Alternative is determining what would happen if, at the conclusion of the EIS process, the Proposed Action and/or Preferred Alternative was not carried forward. In this case, the No Action Alternative would be to maintain the *status quo*—i.e., requesting TMOAs from FAA annually for MFEs as described in the *Environmental Assessment: Major Flying Exercises in Alaska* (USAF 1993a), and conducting routine training in the existing permanent MOAs and other airspace, including MTRs. No action does not necessarily mean to reverse history. The No Action Alternative properly consists of what has been analyzed through previous Environmental Assessments and authorized through the Federal Aviation Administration's airspace circularization and charting process. This alternative is fully congruent with the requirements of NEPA.

ALT-002 COMMENT: I do have one suggestion, which you have probably already considered and rejected, but which I think might possibly be acceptable. Have you considered MOAs that are entirely over water, with operations based at Kodiak or Adak? While ground-based radars to control such operations may not be available or even possible, control by AWACS should be, and such training might be more realistic, as operations in a "real world" combat situation would probably be under such control in any event.

Relocate the bombing ranges, environmental problems notwithstanding.

The EIS does not consider the alternative of conducting training in the Gulf of Alaska. This area is away from land and will not affect as many people.

The EIS should contain a wide range of alternatives. These must address not only the designation of temporary and permanent MOAs, but also for the integrally related MTRs, MFEs, and other joint

and U.S. Air Force training airspace, land use, and facilities. There should be an alternative that does not include any new permanent or temporary MOAs, MTRs, or MFEs over conservation system units in Alaska.

RESPONSE: Section 2.1 of the EIS summarizes the criteria used to formulate the alternatives. The criteria were derived from the aircraft operational parameters (such as effective training range), existing facilities and assets, existing airspace infrastructure (military and civilian), and tactical flying training program and airspace standards. These criteria and the alternatives narrowing process are explained in greater detail in Appendix N of the Final EIS (Volume IV of the Draft EIS). This appendix outlines the criteria used to judge possible alternatives in terms of their ability to meet mission needs. Thirty-three possible alternatives were suggested to the Air Force during the public scoping process. Each was evaluated to determine whether or not it was reasonable (i.e., would satisfy the need for the proposed action). This process produced two additional alternatives (Alternatives A and B), which were analyzed in the Draft EIS. The remainder, including suggestions to establish MOAs further west of the existing MOAs, create new bombing ranges and associated airspace, establish MOAs over water, and conduct routine training and MFEs in existing permanent MOAs only, were evaluated and failed to meet the mandatory criteria. Section 2.5 of the EIS highlights some of the alternatives that were evaluated, but eliminated from further consideration on the basis of failure to satisfy the mandatory criteria.

42 U.S.C. § 4332(c)(iii) requires that EISs and EAs include alternatives to the proposed action. The CEQ regulations implement NEPA by requiring analysis of all reasonable alternatives to the proposed action including the alternative of no action. We assume that the commenters believe that there are reasonable alternatives that the Air Force has not considered.

As noted above, an agency need only consider the reasonable alternatives to its proposed action, not all possible alternatives. The Supreme Court has held, "common sense also teaches us that the 'detailed statement of alternatives' cannot be found wanting simply because the agency failed to include every device and thought conceivable by the mind of man" [*Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council*, 435 U.S. 519, 98 S. Ct. 1197, 55 L.Ed.2d 460 (1978); *Greenpeace USA v. Stone*, 748 F. Supp. 749 [D. Hawaii 1990)]. An alternative is reasonable only if it will bring about the ends of the Federal action [*City of Angoon v. Hodel*, 803 F.2d 1016 (9th Cir. 1986) *cert. den.* 484 U.S. 870, 108 S. Ct. 197, 98 L. Ed. 2d. 148 (1987)].

The proponent of the action bears the burden of deciding which alternatives to consider in an EIS [*Citizens Against Burlington v. Busey*, 938 F. 2d 190 (D.C. Cir. 1991)]. Volume IV of the Draft Environmental Impact Statement sets forth the criteria used for the selection of alternatives based upon the Air Force's need as well as a comparison of "alternatives" presented during scoping with those criteria. We believe that we have identified all of the reasonable alternatives to our proposed action.

ALT-003 COMMENT: The Final EIS should clarify why it is not practical to identify Temporary MOAs on the aviation charts.

Until we can answer the questions concerning the numerous impacts of the proposed alternative, let's stay with the NO ACTION ALTERNATIVE and see if we can't find some cost saving measures with the budgetary and planning procedures, chart the TMOAs and still provide for MFEs and combat experience without subjecting the rest of us to a "military conflict."

DNR suggests the Air Force consider establishing temporary rather than permanent MOAs so that if the impacts on users of state land, wildlife, and other resources are significant, the Air Force can terminate the use of these maps.

RESPONSE: According to the Federal Aviation Administration's *Procedures for Handling Airspace Matters* (7400.2):

The provision for temporary MOAs is in recognition of the military's need for additional airspace to periodically conduct readiness exercises that supplement routine training. When it is known that this need will occur on a regular and continuing basis, the necessary airspace should be considered for establishment as a permanent MOA with provisions for its activation by NOTAM/Special Notice disseminated well in advance of the scheduled activity.

Retaining the airspace as Temporary MOAs would limit its use to MFEs only, which would not accommodate the Air Force's need to use these MOAs for routine training.

Use of a permanent MOA can be terminated or modified by FAA or the Air Force at any time for compelling reasons. Establishing a permanent MOA merely allows its charting and use. It does not mean the airspace is designated in perpetuity. The FAA always retains the authority to change physical and operational parameters. In addition, the Air Force is entering into a Memorandum of Understanding with federal and state resource management agencies to help identify any impacts to sensitive resources that may occur.

ALT-004 COMMENT: This comment number is not used in the EIS.

ALT-005 COMMENT: We are concerned about the selection of the preferred alternative due to its potential noise impacts on biological and subsistence resources, as well as its potential human impacts.

RESPONSE: The Draft EIS purposefully did not identify a Preferred Alternative (see section 2.7 of the Draft EIS). The Air Force deferred selection of its Preferred Alternative pending the outcome of public review and comment on the Draft EIS. The Final EIS identifies the Preferred Alternative as Alternative A--Modified.

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2.4 Biological Resources

BIO-001 COMMENT: In Chapters 2 and 4 there is no discussion of neotropical migratory birds. Alaska's interior provides the major nesting habitats for some of these species. Damage to the highly sensitive hearing required by many of these species to establish breeding territories, to exhibit successful courtship behavior, and to, as juveniles, learn effective vocalization while in Alaska are of high concern. Physical hearing loss from jet aircraft could threaten reproductive success and could cause long-term cumulative declines in breeding populations over large regions of select species' breeding ranges.

The proposed military training exercises will have an adverse impact on the wild game and fowl. The "supersonic booms" will create shock waves which may damage the hearing, nervous system, and heart rate of the wild game, and will create havoc on the migratory patterns and populations of the wild game.

RESPONSE: The central thrust of this comment is the potential for hearing damage to wildlife, particularly neotropical migrant birds. The limited research available suggests that such damage is highly unlikely to result from low-level jet overflights, primarily because of the intermittent nature of the noise peaks generated. Further literature review undertaken in response to this comment has not suggested any reason to alter this conclusion. Text on the potential for hearing damage has been revised to document this conclusion (see section 4.5.1.3). Since the stated concern over the reproductive success and overall population dynamics of neotropical migrants stems from the potential for hearing damage, background information on these species has not been added to the document. Please note, too, the 1994 agreement between the Air Force and the NPS to inventory and monitor neotropical migrant birds in the Yukon-Charley Rivers National Preserve (see section 4.5.1.3.2).

It is interesting to note that only a single study (Gollop et al. 1972) has indicated impact on song bird breeding success. Such studies have been criticized as flawed in that they have not adequately accounted for natural variability in passerine mortality or for the impacts of human intrusion in the course of the studies (USFS 1992). Therefore, this single study was not viewed as adequate reason to address neotropical migrant birds in the analysis.

BIO-002 COMMENT: Rare plant species, some of which may occur at arctic steppe sites along the Yukon River, are of concern. Though no systematic studies have been done, we believe that fire at such sites could eliminate entire populations and should, therefore, be addressed in the Final EIS.

RESPONSE: According to the EIS analysis of the potential impacts of flare use (see section 4.4.2.1.2), the mandated procedures for flare utilization would preclude any increased risk of wildfire. Therefore, this speculative concern has not been addressed in the Final EIS.

BIO-003 COMMENT: The Draft EIS does not indicate the presence of raptor nests in the northern half of the SUSITNA MOA. A late season raptor survey was conducted by National Park Service (NPS) staff in Denali National Park and Preserve under the SUSITNA MOA on August 5, 1989. Three occupied golden eagle nests and nine unoccupied nests were found. It is suspected that the nine unoccupied nests had been active and the golden eagles had already migrated out of the area for warmer climates. Presence of the species should be acknowledged in the Final EIS.

RESPONSE: Information pertaining to wildlife range and habitat use areas was obtained through extensive consultation with state and federal resource managers, including Denali National Park and Preserve (see Chapter 6 for a list of persons and agencies contacted). In the case of raptors, the actual coordinates of nest site locations were provided by the U.S. Fish and Wildlife Service (USFWS) and the Alaska Department of Fish and Game (ADF&G). In order to ensure map consistency, particularly for threatened, endangered, and other special status species (such as golden eagles), the EIS relied primarily on data provided by these agencies. Regarding raptors in the Southcentral Region, which includes the SUSITNA MOA, the text at section 3.5.5.2 has been revised to acknowledge the presence of golden eagles in the area underlying the SUSITNA MOA.

BIO-004 COMMENT: The importance of the Fortymile caribou herd for hunters has been minimized by the Draft EIS and needs to be reevaluated. The impact level for the herd should be described as Level III under the Proposed Action. Virtually the entire herd would reside under the MOAs. The herd is already of concern to many biologists, land managers and the public because of its lack of growth. The added stress of the overflights combined with other identified factors may serve to depress the population. Harvest has been low due to the lack of population status of the herd, not due to inaccessibility or lack of interest. Should the herd reach the state's target of 60,000 animals, hunter use will significantly increase.

The potential for wolf management by the state is closely tied to the health of the Fortymile caribou herd. Cumulative impacts on the herd could result in intensive management of wolves for longer periods of time than would otherwise be proposed by the state.

The Fortymile Caribou Herd Working Team recommends that MOA-associated impacts to the Fortymile caribou herd be listed in the Final EIS as Level III impacts. The EIS finds the Delta caribou herd to be susceptible to Level III impacts in part because of its economic importance. The Fortymile caribou herd is economically important to the residents and communities of eastern Interior Alaska, perhaps increasingly so because of the recent population declines experienced by the neighboring Delta and Mentasta herds.

RESPONSE: The Fortymile herd is profiled in section 3.5.3.4., and the population is described as growing since the mid-1970s, with a slowing of growth since 1988. However, the ADF&G does not identify the Fortymile herd as a herd "in trouble" as it does the much more precarious Delta and Mentasta herds (the latter is generally outside the MOA structure during critical periods). Therefore, the herd currently does not meet the criteria for Level III impacts outlined in section 4.5.1.4. Coordination efforts between the Air Force and the natural resource management agencies would allow appropriate mitigation measures to be implemented should this situation change.

The potential for increased intensity or duration of the State's wolf-control program is a speculative impact and, therefore, not addressed. The coordination program noted above would generate mitigation if the agencies viewed it as necessary.

BIO-005 COMMENT: Without mitigation, we suggest that Level III impacts are applicable for Dall sheep within YUKON 1-4 MOAs. This is due to the low quality habitat and a low density population compared to others in the state. The population also includes the rare Fannin color phase. In addition, the Draft EIS fails to acknowledge that the Dall sheep populations under the SUSITNA MOA may be stressed by other human activities (sport hunting) and that overflights may further contribute to stresses on those populations.

I am also concerned about young Dall sheep before they are strong enough to move safely with their mothers. Hunters have reported observing young sheep taking falls in attempts to follow their mothers who were startled by jets flying low through mountain areas. Why not reduce your activities in mountainous areas during the times when young sheep are most vulnerable?

Dall sheep inhabit the mountainous terrain throughout the MOAs which overlie the upper Yukon and Tanana valleys. The escape terrain utilized by sheep to avoid predation is precipitous. Sheep exhibiting a startle response from low level jet flights near sheep habitat are more likely to accidentally fall. Expanded flight operations near sheep habitat will increase sheep mortality from accidental falls.

RESPONSE: Please refer to Table 2-9 which states that, without mitigation, Dall sheep populations in the northern Alaska Range and the Tanana hills may experience Level III impacts. These populations could be located under the YUKON 1-4, BUFFALO, EIELSON, and FOX MOAs as well as on the Oklahoma air-to-ground weapons range. Mitigation being considered consists of restricting overflights to above 5,000 feet AGL over defined use areas during critical life-cycle phases. Note that military aircraft activity in the SUSITNA MOA, which has a minimum floor of 5,000 feet AGL, has been ongoing since the mid-70s and is not proposed to increase. The ongoing military activity in this MOA is not expected to contribute to the stress experienced by Dall sheep populations in the area.

BIO-006 COMMENT: The proposed activities are described as potentially impacting Listed Species. The EIS should include the Biological Assessment and the associated U.S. Fish and Wildlife Service or National Marine Fisheries Service Biological Opinion or formal correspondence regarding these species.

RESPONSE: Please refer to section 1.7.3.1, which summarizes the consultation regarding threatened and endangered species between the Air Force and the USFWS. Briefly, the Air Force completed formal Section 7 consultation with the USFWS on March 31, 1993, at which time the USFWS issued a Biological Opinion regarding the Proposed Action and the No Action Alternative. The only species considered in the Biological Opinion was the American peregrine falcon (*Falco peregrinus anatum*). The Biological Opinion stipulated an authorized level of incidental take, reasonable and prudent measures to minimize the impact of take, and other terms and conditions related to the authorization of incidental take. These measures, terms, and conditions were subsequently implemented by the Air Force. On March 30, 1994, the Air Force re-initiated formal consultation with the USFWS regarding airspace proposed as part of Alternative B. Consultation was completed on April 18, 1994, at which time the USFWS issued a letter to the Air Force authorizing an increased level of take of American peregrine falcon (from 5 to 6 per year); all other aspects of the March 31, 1993, Biological Opinion remain in effect. All correspondence pertaining to Section 7 consultation between the Air Force and the USFWS is reproduced in Appendix I of the EIS.

BIO-007 COMMENT: In discussing the Biological Resources, the Air Force defines Level II impacts as "impacts that may help cause or maintain *minor* reduction or displacement of local, regional, or entire wildlife populations." The Air Force's use of the word "*minor*" is interesting. They don't define what they mean. It may be minor to the pilots flying the missions, but to those people living off the animals it is certainly NOT minor. The Porcupine caribou herd is an internationally managed herd of over 100,000 animals and it provides subsistence food for most of the villages in the upper Yukon valley as well as Old Crow Village in the northern Yukon Territory. My experience has shown that caribou can be very much impacted by high noise levels.

It has long been understood that loud noises and the repeated frightening of wildlife alters their behavioral patterns and reproductive cycles.

I am concerned about the Delta caribou herd, Dall sheep populations, and peregrine falcon nest sites.

Caribou and peregrine falcon studies have shown that these two species suffer severe impacts from sonic booms.

The impact analysis categories (i.e., Levels I-III) are not based on standard approaches used to evaluate impacts for conservation system lands. The impact levels fail to adequately account for the biological and aesthetic effects below the population level. Definitions of impact levels should also address effects on habitat, sublethal effects, and impaired productivity (decreases in nesting rates and success). We do not believe that evaluation of impacts should be averaged over huge acreage, but the zones where sensitive and critical wildlife habitats would be overlain by overflights should be mapped and better analyzed. We believe the Air Force inappropriately states in the Draft EIS that "no scientific evidence was found during this review to support the contention of individual or population harm based on exposure to any level of noise generated by U.S. Air Force aircraft." Due to the paucity of studies to address this topic, it is more appropriate to say no studies were found to substantiate that there would be no effect of overflights from disturbance or noise impacts.

RESPONSE: The Air Force believes that the impact levels as defined in section 4.5.1.4 do account for all but one of the noted impacts (i.e., biological effects below the population level, effects on habitat, sublethal effects and impaired productivity). Only "aesthetic" effects are not addressed, though these may be dealt with in the recreation analysis or other sections of the document, depending on the commenter's intent. The brief and general impact-level descriptions are merely a means of standardizing and quantifying impacts of these types that are outlined in section 4.5.1.3. Impacts are not generalized over huge acreage but rather assessed on the basis of the critical season habitats described, according to the best currently available information, in the affected environment portion of the document (sections 3.5.3 through 3.5.6).

In regard to the impacts of sonic booms, noise contours including the potential for sonic booms are presented in the noise analysis (see section 4.3). As noted in section 4.5.3.1, sonic booms are considered throughout the assessment of aircraft-noise impacts on biological resources; booms alone could result in a key threshold being crossed and a Level II or III impact. Section 4.5.3.1 also outlines why sonic boom mitigation is not feasible and why this is not viewed as a significant problem.

Regarding the concern that improved thresholds for noise impact and monitoring efforts be developed before increased flight activities are undertaken, the Air Force believes that the thresholds used in the EIS, which were garnered from a thorough review of applicable literature and consultation with numerous researchers and field biologists, provide an adequate basis for the analysis. However, the Interagency Coordination Teams would monitor impacts to ensure that this conclusion is correct.

BIO-008 COMMENT: This comment number is not used in the EIS.

BIO-009 COMMENT: No effects on the Nelchina caribou herd are noted for the Proposed Action, while Level III impacts are indicated as possible on the Delta herd. We understand that the Nelchina herd is larger than the Delta herd and that the former's range/habitat is very definitely under the proposed FOX MOA. Why would the Delta herd be significantly adversely affected and the Nelchina herd not at all?

RESPONSE: Impact levels are defined in section 4.5.1.4. The Delta herd is susceptible to Level III impacts primarily because its numbers have declined by more than 60 percent since 1989. The Nelchina herd has been increasing since 1972, so it cannot be viewed as a population "in trouble," and therefore susceptible to Level III impact. However, as noted in section 4.5.2.4, supersonic flight, with the potential for sonic booms, would make the herd susceptible to Level II impacts although the floor of the FOX MOA would be 5,000 foot AGL floor under the Air Force's Preferred Alternative (Alternative A—Modified), which would reduce subsonic sound levels to well below L_{max} 85 dB. In addition, under this alternative the southeastern corner would be shifted westward, reducing the total area underlying the FOX MOA by approximately 12 percent over the Proposed Action. Finally, the minimum floor for supersonic operations would be 5,000 feet AGL or 12,000 feet MSL, whichever is higher, as compared to 5,000 feet AGL under the Proposed Action. Given the topography of the underlying terrain, this floor would result in approximately 19 percent of all supersonic operations occurring above 10,000 feet AGL, 68 percent above 8,000 feet AGL, and 32 percent between 5,000 and 8,000 feet AGL (in the northern reaches of the FOX MOA near the Alaska Range and south of the EIELSON MOA and R-2202—away from the center of the area where supersonic activities are most likely to occur). The higher supersonic floor further reduces the potential maximum peak overpressures from a sonic boom.

BIO-010 COMMENT: Disturbances caused by low level jet overflights during the calving season pose the greatest risk to moose in the YUKON MOAs. The separation of cow and calf due to being startled could predispose the calf to predation by wolves or bears.

RESPONSE: Potential impacts to moose are described in section 4.5.1.3.6, including the potential for greater susceptibility to aircraft noise during calving. However, because moose habitat tends to include more abundant cover, moose may seek such cover or remain still rather than running when disturbed, and are thought to habituate more to human disturbance than do most other wild ungulates, the magnitude of potential impacts is probably limited.

BIO-011 COMMENT: A possible side effect is that brown bear have been proven to migrate away from the areas of air activity and this could cause them to migrate south to the Lake Louise area, which already has too many brown bear. There they are not only destructive to property, but are a danger to the people using the area.

RESPONSE: Possible impacts to brown and black bears are outlined in section 4.5.1.3.8. Military aircraft overflights could potentially contribute to effects on local populations. However, in consideration of the abundance and wide distribution of bears in Alaska, significant adverse effects, such as habitat abandonment, are not considered likely.

BIO-012 COMMENT: What effect will the increased noise level have on eagles and their nesting areas along the Salcha River?

RESPONSE: The Air Force's Preferred Alternative, Alternative A—Modified, would not include any airspace over the Salcha River. The CLEAR CREEK MOA is not part of this alternative, and the northwest boundary of the BIRCH MOA has been shifted several miles away from the Salcha River. In light of this, impacts to eagles in the area would not occur.

BIO-013 COMMENT: What impacts can be expected on wildlife from fires and unexploded ordnance?

RESPONSE: According to the EIS analysis of the potential impacts of flare use (see section 4.4.2.1.2), the mandated procedures for flare utilization would preclude any increased risk of wildfire. According to section 4.4.2.3, the current capacity of weapons ranges and their annual clean-up procedures, coupled with current safeguards on weapons systems, would preclude any new, munitions related impacts.

BIO-014 COMMENT: The EIS recognizes that Level III impacts on trumpeter swans under the FOX MOA are possible. The community expresses concern that trumpeter swan nesting could be disturbed during the period April 1 through August 31.

Community residents are worried about the effects the use of supersonic fighter planes, engaged in mock combat, would have on the wildlife habitats in the area. In particular the trumpeter swan nesting sites.

RESPONSE: The Air Force's Preferred Alternative, Alternative A—Modified, would include a shift in the FOX MOA boundary that would largely eliminate any airspace over the trumpeter swan nesting areas along the Gulkana River, and would raise the floor of the FOX MOA to 5,000 feet AGL. In light of this, no significant adverse effects to trumpeter swan populations are predicted.

2.5 Cultural Resources

CUL-001 COMMENT: How is it that a determination of No Adverse Effect on cultural resources has already been made without analysis of a specific review of those cultural resources within all the proposed areas and all the proposed overflight activities? How is it possible, given the impacts of noise from sonic and subsonic flights or flares, to state "there would be no ground disturbance associated with the Proposal (i.e., no . . . alteration of existing buildings or facilities)"? It is just as reasonable to conclude that these proposed activities would destroy historic structures and/or alter the landscape (historical context), irreplaceably destroying our past.

What will be the adverse physical effects to any prehistoric or historic buildings, structures, or objects? What are the locations of these sites? Will additional surveys be conducted? What are these sites? How many of these sites are eligible to be placed on the National Register of Historic Places? Will the proposed improvements to military operations areas in Alaska comply with the National [Historic] Preservation Act, including, but not limited to, Section 106? We question how the SHPO could have made a determination that the proposed action would have no adverse effect to cultural resources prior to the completion of the EIS. Clearly, the cart has been put before the horse.

RESPONSE: The term "adverse effect" has special meaning when used in association with cultural resources. According to the National Historic Preservation Act (NHPA), "An undertaking is considered to have an adverse effect when the effect on a historic property may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association." Further defined in 36 CFR 800.3(a), an "undertaking shall be considered to have an effect whenever any condition of the undertaking causes or may cause any change, beneficial or adverse, in the quality of the historical, architectural, archaeological, or cultural characteristics that qualify the property to meet the criteria of the National Register." Adverse effects to cultural resources may include direct, indirect, and cumulative impacts as the result of intentional and inadvertent damage. Effects in general are the result of ground-disturbing activities. The risk of impacting sites is directly related to the amount of ground-disturbing activities conducted in a given area.

Section 106 of the NHPA requires a proponent to determine whether or not an action will affect historic properties listed in or eligible for listing in the National Register. If the agency concludes that the action will have an effect, the agency must then determine whether or not that effect will be adverse. This determination is made in consultation with the State Historic Preservation Officer (SHPO) using established criteria. Some of the factors considered in determining whether or not an effect is likely to be adverse include: The duration of adverse effects; the relationship between local short-term uses of the property and the long-term preservation and enhancement of the property; and the likelihood of unexpected discoveries of significant resources. As stated in the EIS, a determination of no adverse effect was made in consultation with the Alaska SHPO, who subsequently concurred with the finding. The Advisory Council on Historic Preservation, upon notification of the finding, responded with no objections and stated that the Air Force had fulfilled the requirements of Section 106 of the NHPA and the council's implementing regulations. Sections 1.6.2.1 and 1.7.3.4 summarize this process, and Appendix L contains all pertinent correspondence.

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2.6 Cumulative Impacts

CUM-001 COMMENT: We are concerned that the Air Force seems to be considering only the noise that will be generated by its aircraft, rather than the noise contributed by its aircraft to the noise of all aircraft, military and civilian, that fly over this area.

The increased percentages of activity do not include the overflights and associated sonic booms that were added for MFEs under temporary MOA designations in 1993. The TMOA designations in 1993 associated with MFEs had already increased operations in the permanent YUKON 1 and 2 MOAs from averages of 24 to approximately 300 per day for 60 days per year, and there was a 50 percent increase in operations over 1992 levels for TMOAs. What is the maximum number of sorties (operations) per MOA per day, and the maximum number of aircraft involved in an exercise on a single day?

The Draft EIS does not contain an adequate cumulative effects analysis. To adequately address project impacts, the Final EIS must include a detailed cumulative impacts analysis. We recommend the analysis include the potential for cumulative impacts associated with military operations where the locations of MOAs and MTRs overlap; slow speed training within MOA and military aircraft operations in combination with civilian aircraft operations; and activities that occur on the ground beneath the MOAs and MTRs.

RESPONSE: The Air Force understands the concerns regarding cumulative impact analysis and has included additional relevant information in the assessment of potential cumulative impacts to certain resources. However, the analysis in this EIS does integrate routine training and MFE training in the MOAs with MTR and slow-speed, low-altitude aircraft activities where these operations are co-located with or in the vicinity of a MOA. In addition, all available data pertaining to civil aviation operations were included. Please refer to sections 3.2.2.3, 3.2.3.3, 3.2.4.3, and 3.2.5.3 for information on other DoD aircraft operations in the four regions; sections 3.2.2.4, 3.2.3.4, 3.2.4.4, and 3.2.5.4 for information on civilian aircraft operations in the four regions; sections 3.3.3.3, 3.3.4.4, 3.3.5.3, and 3.3.6.4 for an evaluation of the existing cumulative noise from Air Force operations in the four regions; and section 4.11 for an assessment of cumulative impacts. The Air Force is unaware of any approved model or methodology for predicting cumulative noise levels due to the combination of military aircraft operations with civilian aircraft activities and ground operations. In the absence of such a methodology, the EIS relied on estimates of the types and levels of activities occurring in the Region of Influence derived from information provided by agencies, organizations, and the public.

The Region of Influence considered in the EIS was initially defined by the MOAs themselves and the lands underlying them and extending some reasonable distance beyond the MOA boundaries, along with the Air Force's two primary bases in Alaska (Eielson and Elmendorf AFBs) and three air-to-ground weapons ranges (Oklahoma, Stuart Creek, and Blair Lakes). The Region of Influence was ultimately determined by the extent of direct, indirect, and cumulative impacts anticipated for the different resources assessed.

Under the Proposed and all Alternative Actions except the No Action Alternative, the maximum number of routine and MFE training sorties per MFE day would be 206 (see section 2.4.8 of the EIS and Table ES-1 of the Executive Summary). The maximum number of sorties transiting any one MOA on an MFE day would range from 0 in GALENA MOA to 206 in YUKON 1 MOA. The YUKON MOAs could experience between 107 and 206 sorties. The BUFFALO, BIRCH, and EIELSON MOAs could sustain a maximum of between 86 and 145 sorties. FOX MOA would have 80 sorties at most. On non-MFE days, the maximum number of sorties in any one MOA would be 18. These sortie rates are not in addition to, but inclusive of the sorties assessed in the MFE EA. In other words, the MFE EA examined a proposal to conduct 6 MFEs per year with as many as 85 aircraft flying a maximum of 150 sorties per MFE day. The Proposed and Alternative Actions considered in this EIS

involve as many as 100 aircraft flying a maximum of 200 sorties per MFE day. This comprises a 17 percent increase in the total number of aircraft that could participate in an MFE and a 33 percent increase in the number of sorties.

CUM-002 COMMENT: The Draft EIS does not provide a convenient means to compare overall flight training activity from 1990 to current and proposed levels of flying. The EIS should contain an analysis based on a real No Action Alternative. The numbers in the Draft EIS Table ES-1 and Table 2-6 for the No Action Alternative do not correspond with those shown in the MFE EA.

RESPONSE: This EIS considers the total impact of all the Air Force's operations within the Region of Influence of the MOAs being assessed. The total potential impact of the Proposed or Alternative Actions remains unchanged whether the baseline is the status quo (MFE EA) or pre-beddown of the F-16s and F-15Es.

MOA operations numbers for the No Action Alternative have been corrected in the Final EIS (see Table 2-7). As a point of clarification, MOA operations numbers were presented in the MFE EA in a slightly different manner than in the EIS (reference the MFE EA, page 5-27, Table 5.5). For example, in the MFE EA, the YUKON 1 MOA averaged about 10.65 routine aircraft operations per day with no MFEs, or a total of 2,556 sorties per year with no MFEs. The assessment assumed that some routine training operations would be committed to the MFE on certain days; hence, the number of routine operations in a MOA would be reduced by some percentage. For the MFE EA, this resulted in about a 19.5 percent reduction on an MFE flying day. Reducing the 10.65 sorties per day by this percentage yields about 8.6 routine sorties per day on an MFE day. So with 60 days of MFEs at 8.6 routine sorties per day and 180 days of routine training at 10.65 sorties per day, the total routine sorties per year in the YUKON 1 MOA would be about 2,433. This works out to approximately 10.14 routine sorties per day when averaged out over an entire year. The other 2.05 sorties per day, from the original 10.65, were made part of the 140 sorties per day for an MFE. So, under the Proposed Action in the MFE EA, on an MFE training day there would be 140 MFE sorties and about 8.6 routine sorties in the YUKON 1 MOA. In the Draft MOA EIS, there are two columns for each alternative in Table ES-1 and Table 2-6. The Routine Training Day column shows the number of sorties expected in a MOA on a routine training day. The MFE column shows the total number of aircraft sorties (MFE and routine) expected in a MOA on an MFE day. Note that in the Draft EIS decimal points were dropped and numbers were rounded up to the nearest whole number.

2.7 Editorial Comments

EDT-001 COMMENT: The document suffers from disorganization. Use of terms that do not relate to real world experiences challenges the best reader to translate single impacts into everyday events. Separation of wildlife impacts from subsistence and recreation confuse the reader. Lack of detail throughout offers little with which to make an informed decision. Maps are confusing, requiring the reader to put together several maps, along with text, to figure out where supersonic flights will be over denning bears, for example.

RESPONSE: The Proposed and Alternative Actions are large in geographic scale and complex in terms of issues and resources potentially affected. Bringing together in one document intended for a wide audience such disparate topics as military operations and equipment, airspace management and aviation activities, noise modelling and analysis, and the variety of other resources examined made organizing the EIS quite challenging. Although we tried to refrain from using acronyms and Air Force or military jargon, some use of such terms and phrases is unavoidable. In many cases, there is no better way to say something than in the standard terminology used by the proponent. Without question, reviewing and evaluating this EIS (or any EIS) requires persistence and no small effort by the reader, and we appreciate the active role individuals and organizations have taken in the review and comment process.

In accordance with CEQ guidelines for the format of an EIS, Chapter 3 describes the existing conditions with regard to potentially affected resources, while the possible consequences of the Proposed and Alternative Actions are presented in Chapter 4. It is necessary, in some cases, to compare several maps to obtain all of the information needed to understand an alternative, operation, or impact. However, most maps contain as much information as can be depicted with any clarity. Adding further layers of information would have resulted in maps so dense with data as to be impenetrable by the reader.

EDT-002 COMMENT: The Draft EIS failed to provide topographical data for all proposed airspace.

The maps were inevitably faded copies with 5 to 10 mile-wide boundaries inscribed with a wide felt tip pen. It was virtually impossible to determine precise boundaries, and therefore impossible to determine where you planned to do what. Given the technical capability demonstrated elsewhere in the EIS, one wonders why the maps were so indistinct.

RESPONSE: Where important to the evaluation of potential impacts (e.g., effects on aviation safety, wildlife, etc.), topographic features were considered by the analysts. However, the graphic depiction of topographic features was not considered necessary for completeness of the EIS as this information is readily available in any number of government and commercial publications.

The original maps for the Draft EIS were prepared using state-of-the-art graphics software and equipment, but it is possible that second- and third-generation photocopying degraded the clarity of the originals. Although the boundaries of most features were plotted very precisely using exact coordinates and other location data, given the scale of the maps in the EIS, it would be inaccurate to assign the level of precision implied (by the comment) to any of the boundaries depicted. Moreover, to do so in regard to airspace boundaries would imply an actual physical barrier, which does not exist.

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2.8 Chaff, Flares, and Hazardous Operations

HAZ-001 COMMENT: What are the expected impacts of the potential increase in munitions expenditures associated with the proposed action? The increase in training will enhance the potential for inadvertent releases of ordnance and for aircraft malfunctions associated with ordnance. What is the potential for an inadvertent release within the State of Alaska? What is the difference in bomb footprints from aircraft operating at all approved altitudes? At what altitudes will aircraft be firing ordnance?

RESPONSE: No increase in munitions expenditures is expected for MFE flying operations under the Proposed or Alternative Actions. With the installation of the Yukon Measurement and Debriefing System (YMDS), the capability now exists to practice and score weapons deliveries without actually expending ordnance and with no weapons on board the aircraft. This is accomplished by using the No Drop Weapon Scoring capabilities of the YMDS. There would be no need to increase munitions expenditures with this capability and, hence, no projected increase in munitions obtained, transported, stored, or expended. All munitions are transported and stored in accordance with Air Force and DoD regulations to ensure utmost security, safety of personnel, and protection of the environment. The types and numbers of munitions currently being expended or expected to be expended in the future are all within the current capabilities for range cleanup and maintenance. As stated in section 3.4.4 of the EIS, Air Force safety regulations (*AFI 13-212*) require safeguards on weapons systems and ordnance to ensure against an inadvertent release. When carried, munitions are mounted on aircraft with mechanisms designed to preclude release without activating an electronic circuit. The procedures for delivering munitions on air-to-ground weapons ranges are found in *AFR 50-46*. Approval for using varying ordnance delivery parameters must consider release altitudes, release headings, dive angles, weapon footprint, and aircraft airspeed to determine any restrictions necessary to ensure an adequate safety margin. Once these parameters are determined, they are documented in local supplements to *AFR 50-46* and other aircraft operational handbooks. These operational procedures are established so that all weapons will impact within the designated range impact areas and all weapon footprints remain within the range.

HAZ-002 COMMENT: Since the Draft EIS fails to analyze increased activities associated with hazardous and toxic substances, can we assume that these substances will not be necessary to conduct the proposed activities? Additionally, these activities will not include the transportation, storage, or use of petroleum products, etc. NEPA requires a worst case analysis of impacts and the Eielson Environmental Management and Contingency Plan and the Eielson AFB Operations Plan 93 are not NEPA documents and therefore cannot fulfill NEPA requirements. Clearly, proposed activities could not proceed without the use of these materials, therefore, analyses must be included.

The Draft EIS fails to fully describe the toxic and hazardous substances associated with all possible weapons systems. H-6, Tritonal, or Minol II explosives are discussed on page C-7. However, the Draft EIS fails to provide data on the following scoping comment: What will be the impacts to Alaska's natural resources or human health from the toxic and hazardous substances?

RESPONSE: The Final EIS has been updated with the following information concerning hazardous materials and wastes (see sections 3.4.5.3 and 4.4.2.4.3) and munitions use and handling (see section 4.4.2.3).

The following hazardous materials are stored on-base at Eielson AFB: hydrazine, sulfuric acid, formaldehyde, and chlorine; other hazardous materials stored in bulk are motor oil, gas cylinders, and lye (USAF 1993e). At Elmendorf AFB, ammonia, sulfuric acid, and chlorine are stored; hydrazine is stored only when F-16 aircraft

are present (USAF 1994a). Other hazardous materials typically stored on-base include fuel, petroleum, oils, and lubricating (POL) products, paints, and various types of solvent. Eielson and Elmendorf AFBs are classified as Large Quantity Generators of hazardous wastes under the Resource Conservation and Recovery Act (RCRA). All hazardous materials and wastes are handled in accordance with RCRA, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Emergency Planning and Community Right-to-Know Act (EPCRA), Air Force Occupational Safety and Health standards; and applicable state requirements. Both bases have pollution prevention programs in place, such as hazardous material pharmacies, to control ordering and use of hazardous materials to minimize the amount of hazardous materials used and, consequently, the amount of hazardous waste generated. Part of this pollution prevention effort is finding and using suitable substitutes for hazardous materials whenever possible.

The *Eielson AFB OPLAN 355-1: Disaster Preparedness* (USAF 1993e) and *3rd Wing OPLAN 355-1: Disaster Preparedness* (USAF 1993f) establish procedures for responding to flight, ground, and weapons mishaps for the 354 FW, 3 WG, and host bases (Eielson and Elmendorf AFBs). These plans contain procedures for preventing further loss of life and/or property damage, securing the accident site, and making the site safe in the event of mishaps occurring on- and off-base and at remote locations. Actions outlined include providing emergency medical care, firefighting, and rescue support; securing the wreckage site; clearing ordnance; preserving perishable evidence; and notifying appropriate officials. The plans specify that, in the event of a release of a hazardous material or toxic substance, a decontamination team will respond to the site and take actions that comply with applicable state and federal regulations (e.g., 18 AAC 75; 29 CFR 1910.129; 29 CFR 194; 40 CFR 300; 40 CFR 112; and 40 CFR 355). The plans establish specific procedures for incidents involving hazardous materials, including notification, response, containment, and recovery phases.

Since the aircraft generating the additional MFE sorties proposed in this EIS would be transient aircraft, major maintenance would not occur on these aircraft at either Eielson or Elmendorf AFB except in an emergency. Therefore, the types of hazardous materials present at the bases would be unchanged while any increase in the amounts of hazardous materials present and the amounts of hazardous waste generated would be expected to be negligible. The handling and use of hazardous materials would remain subject to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Emergency Planning and Community Right-to-Know Act (EPCRA), Air Force Occupational Safety and Health standards, and state requirements. Additional hazardous waste, regardless of quantity, would continue to be handled in accordance with the procedures for large quantity generators established by the Resource Conservation and Recovery Act (RCRA).

Actual discharges of hazardous materials and hazardous waste are possible and would be reported in accordance with state and federal law, although the potential for such occurrences is thought to be slight. Releases would be the subject of immediate response by trained personnel and the potential for damage to human health or the environment is minimal.

Both bases currently have pollution prevention programs in place, such as hazardous material pharmacies, to control ordering and use of hazardous materials to minimize the amount of hazardous materials used and, consequently, the amount of hazardous waste generated. Part of this pollution prevention effort is finding and using suitable substitutes for hazardous materials whenever possible.

Only munitions previously authorized for use on the Oklahoma (R-2202) and Stuart Creek (R-2205) air-to-ground weapons ranges would be carried (see USAF 1992b for a list of authorized munitions). The only live munitions authorized for use are the Mk82 bomb, Mk84 bomb, 2.75 FFARs (fold-fin rockets with high explosive warheads), 7.62/20mm/30mm ammunition, and AGM 65 Maverick missiles. All other munitions are inert. There would be no change in the types or increase in the quantities used with implementation of any of the alternatives. Acquisition, transportation, storage, and use of munitions would continue to be handled in accordance with all applicable state and federal laws and regulations, as well as Air Force regulations.

HAZ-003 COMMENT: The prevailing opinion may be that chaff does not present a significant environmental impact because independent studies have not been performed, particularly in the arctic environment. How much of these fiberglass monofilaments will litter the landscape? Given the environmental conditions, how fast will the aluminum oxidize?

The Draft EIS omits discussion of the use of chaff on federal lands. Where the Draft EIS leaves the impression that chaff dispersal is a minor concern, in fact the use of chaff will be routine and is likely to have widespread effects on the lands beneath the MOAs, and the wildlife which utilize that habitat. In Yukon-Charley Rivers National Preserve, this alone is an unacceptable derogation of the park resources, which risks rendering the entire park area a wasteland of accumulating debris, and which will exact a heavy toll on wildlife utilizing the park.

Having been in both broadcast and general communications for 30 years now, I am concerned about frequency conflicts, interference with civil aviation and 27 Mhz band users. I don't know if tin foil strips are still being dropped, but we're not interested in chaff being dropped in our region.

We are concerned about the interference of chaff with radios, especially those used in biological radio-collaring studies. Would the chaff interfere with satellite radio-collars?

The Draft EIS fails to provide information on how long it will take chaff to mechanically breakdown. The Draft EIS notes that chaff casings are "normally retained by the aircraft." How many casings are expected to hit the ground? Will these casings fall on public or private land? If chaff is dropped on public lands, will the Air Force be littering on public lands? The Draft EIS fails to consider the consequences if the animal or human does inhale chaff, but notes on page 4-82 that inhalation concentrations would be too low to cause effects. The Draft EIS fails to consider other impacts of chaff and flares to domestic animals and wildlife. The Draft EIS fails to consider events such as startle effect of chaff on local inhabitants, possible ingestion of the chaff, and the use of chaff by nesting species and the accompanying skin irritation to impacted species clearly is not explored. The Draft EIS fails to provide information on whether the use of chaff will be restricted over wilderness, wildlife refuges, and other sensitive environmental areas.

RESPONSE: Chaff is a critical component of the Air Force training program and essential to fulfilling overall readiness requirements. It has two primary applications; both involve confusing radar systems. For scenarios in which aircraft would be subject to incoming surface-to-air or air-to-air missiles, chaff is used to decoy the missiles' radar into firing at the chaff cloud rather than the aircraft. Chaff is also used to confuse enemy radar by saturating radar signals so the radar cannot distinguish between the aircraft and the dispensed chaff. Chaff consists of glass fibers, coated with aluminum, with a stearic acid "slip" coating that prevents the fibers from sticking together. Chaff strands are approximately the thickness of a human hair. Strand lengths vary depending on the frequencies of the radar signals against which they will be used, but typical lengths are from 0.38 to 2 inches.

The Air Force proposes to authorize the use of chaff for routine and MFE training in all permanent MOAs (existing and proposed) in accordance with 11th Air Force directives (see sections 2.3 and 3.4.2.4). Much of the chaff dispensed in these MOAs would fall on public lands, predominantly state, federal, and DoD lands; although some could be deposited on private or Alaska Native corporation lands. A maximum of 90,000 pounds of chaff is presently allocated for use in Alaskan airspace, and this amount would not increase (Hanson 1995). Based on this, the deposition rate (assuming a normal distribution) would be about 0.037 ounces of chaff per acre.

Although chaff does not decompose rapidly, some decomposition would take place. The aluminum component will eventually oxidize to Al_2O_3 . The time frame in which this oxidation occurs is very dependent on environmental conditions and the size and shape of the original aluminum. Oxidation may vary from

instantaneous for micron size particles to several centuries for centimeter size pieces. The Air Force is attempting to develop an alternative (e.g., biodegradable) type of chaff, which could be fielded as soon as operational. The chaff casing (a plastic, cardboard, or metal 1 x 1 x 7-inch casing, weighing approximately 4 ounces) is normally retained in the aircraft (see section 3.4.2.1). It is possible, but rare, for casings to be expelled from the aircraft.

Training chaffs operate on E-J radar/radio frequency bands (2,000 to 18,000 MHz), which are well outside the frequency range of radio and television stations (5 to 100 MHz and 200 to 600 MHz, respectively) (see section 4.4.2.1.1). Aluminum foil chaff (composed of aluminum, a nitrocellulose-type lacquer, and superfine metal lead) has not been manufactured or shipped to the military services for several years.

According to a radio telemetry specialist with the ADF&G, all resource agencies in the state use frequencies between 148 and 166 MHz, well below the frequencies of chaff. Interference with radio-collars would not occur. The ADF&G representative indicated that he knew of no problems in this regard, nor could he conceive of any.

The EIS addresses potential effects on human health, livestock, wildlife, vegetation, land, water resources, and air quality (see section 4.4.2.1.1). The Air Force believes the analysis, which is based on scientifically accepted research, is sufficient. Aluminum foil is not toxic to animals even when consumed in large quantities. Fiberglass is listed as a nuisance particle by the American Conference of Government Industrial Hygienists, and direct contact with its fibers has an irritant effect. Stearic acid, which is basically an unstable animal fat, will degrade after several days of exposure to light and air. Numerous studies of the potential impacts of chaff use support the following conclusions: 1) Aluminum-coated fiberglass chaff exhibits no characteristics that would be considered a health hazard; 2) the individual chemical components of chaff (silica oxide, aluminum oxide, and stearic acid) are not considered a health hazard; and 3) because of the dispersion characteristics of chaff releases and the size of the land areas over which chaff training would be accomplished, no short- or long-term adverse environmental impacts would be expected from the use of chaff.

Chaff is not typically visible from the ground due to the high altitudes at which it is usually dispensed, the wide dispersion pattern, and the small size of chaff dipoles. These factors, combined with the slow rate of descent, make startle effects improbable.

Under the Proposed Action, Alternative A, Alternative B, and the No Action Alternative, the STONY A MOA would overlies approximately 2 percent of Lake Clark National Park and Preserve (NPP), most of it designated wilderness. Under Alternative A—Modified (the Preferred Alternative), the eastern boundary of STONY A MOA would be shifted west to avoid Lake Clark NPP entirely.

HAZ-004 COMMENT: What toxic and hazardous substances may be part and parcel of an accident, such as the hazards associated with hydrazine on F-16 aircraft as part of the emergency power unit (EPU)? Hydrazine in sufficient quantities can cause dizziness, severe burns, damage to the kidneys, and liver dysfunction. Will adequate emergency response procedures be implemented in the case of an accident involving hydrazine? Have local emergency response personnel been trained regarding the hazards of hydrazine?

RESPONSE: The Final EIS has been updated with additional information concerning hydrazine (see section 3.4.5.3). This additional information is presented here as well.

F-16s carry a small quantity of hydrazine in a sealed (6.6-gallon) container. Hydrazine is a toxic and flammable hazardous material that is unique to the operational requirements of the aircraft. Hydrazine (N_2H_4) is a clear, oily liquid with an ammonia-like odor (3 to 5 parts per million odor threshold) that autodecomposes at 550° F, has an open-cup flash point of 154° F, and is hygroscopic (readily absorbs moisture from the atmosphere). It is combustible in solution with water at concentrations of 40 percent or less, and its evaporation at any given

temperature is slightly slower than that of water. The hydrazine used in F-16 aircraft is a mixture of 30 percent water and 70 percent hydrazine and is called H-70. The hydrazine is transported on the base in the canisters used on the aircraft. It is transported, stored, and handled in accordance with all appropriate federal, state, local, Air Force, and Eielson AFB regulations and guidelines. The canisters are installed on and removed from the F-16 aircraft by personnel who have been specially trained in the handling of this material.

The EPA classes hydrazine as a hazardous material because it is flammable and toxic to humans. Pathways of human exposure are ingestion, inhalation, and rapid absorption through the skin. Health effects from short-term exposure to high concentrations of hydrazine include burns; dizziness; nausea; and irritation of eyes, nose, throat, and lungs. Exposure to very high concentrations can result in loss of consciousness and blindness. Long-term adverse health effects include liver and kidney damage. Hydrazine is also toxic to terrestrial and aquatic organisms at the parts per million level (Harrah 1982; Hudson 1982; and Kane and Williamson 1982).

Spill prevention and response plans for hydrazine include personnel training and organization of a hydrazine response team to ensure quick action in the event of accidental H-70 spills, suspected leaks, or F-16 emergency power unit (EPU) firings. All personnel who perform duties around the F-16 aircraft are thoroughly briefed on the properties and hazards of hydrazine. The procedures for hydrazine spill neutralization are based on the chemical reaction of H-70 with ordinary household bleach (5 percent sodium hypochlorite) or high-test hypochlorite (HTH) (granular calcium hypochlorite), which yields water, nitrogen, and harmless salts. Procedures for handling hydrazine and responding to spills or leaks are specified in *Technical Order (T.O.) 1F-16CG-2-49GS-00-1* (1992) and *Eielson AFB OPLAN 355-1* (USAF 1993e). The basic procedure is to mop up as much of the hydrazine as possible, neutralizing any remaining damp spots, and flush with water. In locations where floors and drainage systems have a holding sump, hydrazine may be immediately flushed into the holding sump with water for subsequent treatment and release. Because hydrazine is highly toxic to aquatic and terrestrial organisms, spills cannot be flushed directly into a storm or sanitary sewer drain. Where a holding sump is not available, general cleanup procedures involve containing the spill with polypropylene felt; diluting it with water (1:1 by volume) to reduce immediate fuming and fire hazards; mopping up as much of the product as possible with absorbent felt; neutralizing the surface area with bleach (for small spills less than 1 liter) or with a premixed HTH solution (for larger spills); and flushing the area with large amounts of water. Saturated (waste) felt would be placed in a container partially filled with water or 50 percent methanol/water solution, depending on the ambient temperature. Leaks would be handled by placing a bucket of water beneath the source, isolating and containing the leak, and neutralizing the waste solution. Spills on aircraft ramps would be absorbed with felt in accordance with procedures outlined above. Remaining damp areas would be neutralized with bleach and then flushed with water. Contaminated aircraft would be wiped with absorbent material, flushed with water, cleaned with detergent, then flushed again. Runoff would be collected and neutralized as outlined above. Response to an activated EPU would involve air sampling and surface wipes to test for hydrazine leakage.

Impacts on soils, surface water, and groundwater from accidents on base involving hydrazine would likely be of minor consequence. H-70 surface contamination would be diluted and neutralized to form harmless products. Its movement through natural soils composed of various fractions of sand, clay, and organic matter has been demonstrated to be slow and limited (Braun and Zirrolli 1983). It is expected that movement of hydrazine through these soils would be similarly limited due to absorption and chemical decomposition processes. Timely action by the trained hydrazine response team would be expected to preclude H-70 migration through soil to groundwater.

During normal hydrazine service and storage operations, potential effects on air quality and base personnel would be minimized by the provision of adequate ventilation and use of protective clothing and equipment. Mitigation during spill or leak response actions would adhere to proper procedures, including evacuating areas 100 feet upwind and farther downwind of the affected site, and use of self-contained breathing apparatus and other protective gear such as firemen's boots, rocket fuel handler's gloves, and hooded suits by response team members. Impacts on base personnel and the environment would be negligible due to specification and use of appropriate equipment and procedures for both normal conditions and accident response. Dissemination of

information on hydrazine to the local emergency response agencies would also help to minimize hydrazine exposure during hazardous materials spill response.

The Air Force would most likely be the first responder to aircraft accidents occurring in remote areas, which constitute the majority of the areas underlying MOAs. Crashes of sufficient force to rupture the hydrazine containers on board the aircraft would probably result in a fire that would consume the hydrazine. The probability of the hydrazine not being completely consumed is remote. If not completely consumed, impacts to soil and groundwater would likely be minor as the movement of hydrazine through natural soils composed of various fractions of sand, clay, and organic matter has been shown to be slow and limited. Movement of hydrazine through such soils would be limited due to absorption and chemical decomposition processes. If hydrazine were to reach a surface water body, there would be adverse effects on aquatic life, but the chances of such an occurrence are exceedingly small. In the case of any accident where a spill of hazardous materials occurs, the Air Force is ultimately responsible for cleanup.

HAZ-005 COMMENT: Will 30mm ammunition containing depleted uranium (DU) be used as part of the training scenarios under the proposal? If so, what are the long-term health and environmental impacts of DU use? Are nuclear materials or weapons involved in any way with the described training scenarios?

RESPONSE: The A-10 is capable of employing the 30mm ammunition containing depleted uranium (DU); however, this type of ammunition is only used in actual combat situations or on ranges specifically designated for employment of these rounds. It is not carried on training missions or expended on ranges in Alaska. The only types of 30mm ammunition authorized for expenditure on the ranges in Alaska are the 30mm TP (target practice), 30mm HE (high explosive), and 30mm HEI (high explosive, incendiary). None of the 30mm ammunition contains nuclear material. Virtually all ammunition expended is 30mm TP. Nuclear materials or weapons are not used in any of the routine or MFE training scenarios in Alaska.

HAZ-006 COMMENT: Please discuss whether AMRAAMs will be carried or be used and what are the impacts of their employment in the proposed airspace?

RESPONSE: The Advanced Medium Range Air-to-Air Missile (AMRAAM) is a radar-guided air intercept missile certified to be carried on both F-15 and F-16 aircraft. AMRAAM training missiles (missiles without rocket motors or warheads) may occasionally be captive carried on air-to-air training missions. AMRAAM missiles are not test fired in the MOAs or on the ranges in Alaska.

HAZ-007 COMMENT: Any new electronic equipment must entail a complete new EIS stating power densities, frequencies, location, purposes, etc. What will be the location of additional training devices such as threat emitters, scoring systems for combat training, radar installations, and other devices installed for the proposed changes? What measures will be taken to control radiation levels? Will the devices be shielded and fenced off? How many devices will there be and where will they be placed? Will residents be warned of potential health hazards? Will radiation monitoring programs be established? What are the siting, operating conditions per ANSI, AFOSH (Air Force Occupational Safety and Health [Standard]) 161-5, and DoD 6055.11?

The information provided failed to honestly portray to the residents of Alaska that a major portion of the proposed improvements to Military Operations Areas in Alaska includes plans for electronic

combat as described on page 1-2. Historically, the placement of electronic combat equipment has lead to future land takings. Will there be land grabs in the future, particularly in the next 20 years?

We are concerned that radar will be changing dramatically in the near future to be able to detect stealth-type aircraft. This type of aircraft will create a need to increase the power output of radar ten times greater than is currently used. Will the electronic warfare equipment become obsolete in the next ten years because the increased power needs will exceed safe EMR [electromagnetic radiation] ANSI standards?

What is the radar detection range for all the aircraft which would be allowed to utilize the proposed special use airspace? What radar types will be used?

The Draft EIS on page 2-3 notes that "early warning and ground control intercept radar systems need to be provided in appropriate locations simulating enemy defense layouts." What layouts? Where will these additional radar devices be located?

While the controversy over health impacts associated with electromagnetic fields has been brewing for over 40 years, much the same way scientists once debated the dangers of ionizing radiation such as X-rays and radiation from nuclear explosion, the growing body of scientific knowledge of health hazards associated with electromagnetic fields provides a clear message that preventive health policies should be instituted whenever possible. The Draft EIS failed to recognize studies by the Congressional Office of Technology, *Biological Effects of Power Frequency Electric and Magnetic Fields*, which found the following:

- In our view, the emerging evidence no longer allows one to categorically assert there are no risks.

The EPA has brought to light serious questions regarding health impacts of non-ionizing radiation to humans and animals. Analysts at the U.S. EPA, reported in *An Evaluation of the Potential Carcinogenicity of Electromagnetic Field*, have recommended that extremely low frequency (ELF) electromagnetic fields (EMF) be classified as "probable human carcinogens." By classifying ELF EMFs as a probable human carcinogen, the EPA staff put them in the general class with PCBs, DDT, and formaldehyde.

RESPONSE: None of the alternatives would entail the acquisition, installation, or use of "new" electronic equipment. The weapon systems and electronic training systems the Air Force uses are assessed for adverse effects to human health and the environment as part of the research, development, and testing effort that occurs during the fielding of these systems, prior to their introduction into the inventory. They are installed, operated, and used in accordance with applicable Air Force and federal occupational safety and health regulations.

Electronic combat is an operational mission, which is mentioned on page 1-2 and further described in Appendix C, section C.1.3.2. Electronic combat training is conducted to ensure that U.S. forces can achieve objectives and successfully complete combat missions. As explained in Volume IV of the Draft EIS, section 2.2.4 (Appendix N of the Final EIS), electronic combat assets consist of ground-based fixed, transportable, and mobile (i.e., self-transporting) systems, and airborne systems such as the E-3 Airborne Warning and Control System (AWACS). Electronic combat training is currently conducted by 11th Air Force units and participants in MFEs. No change in the type of training is proposed, nor do any of the alternatives involve the acquisition or fielding of new electronic combat assets. Electronic combat targets are limited to the existing air-to-ground weapons ranges or unobtrusive, portable simulators, which require no permanent installation. An electronic combat mission involves no use of land.

In the reasonably foreseeable future, electronic combat equipment would not change from what is in place now. Speculating on future technological advances is beyond the scope of this EIS.

The specific air-to-air radar detection capabilities of Air Force and allied aircraft are dependent upon the radar cross-section and the altitude of the aircraft above the underlying terrain. However, airborne radar platforms are capable of detecting and tracking light aircraft, including canvas-configured aircraft with only the engine as the primary metallic part, at ranges of approximately 10 miles at nominal operating altitudes. Radar systems used during military training activities, whether ground-based or airborne, are similar to radars currently used by FAA and civilian aircraft, none of which have been shown to have adverse effects on human health when used within established operational parameters. The radar systems used on the various aircraft pose no hazard to the public due to the energy levels used by the equipment, and the aircraft altitudes and speeds. Given these factors, the duration of any possible exposure would be exceedingly small, if such exposure were to occur at all. None of the electromagnetic systems used at permanent threat sites or by portable threat simulators pose a hazard to the public or the environment. The radar systems are of relatively low power and pose no hazard to the public or the environment.

The statement referred to on page 2-3 ("early warning and ground control intercept radar systems need to be provided in appropriate locations simulating enemy defense layouts.") is not found in the Draft EIS.

Electric charges create electric fields, and electric charges that move (i.e., electric current) create magnetic fields. An appliance that is plugged in (connected to a source of electricity) has an electric field even when the appliance is turned off. To produce a magnetic field, however, the appliance must be not only plugged in, but operating. As it is typically used, the term electromagnetic field (EMF) means electric and magnetic fields at the extremely low frequency (or ELF) end of the electromagnetic spectrum (in the 60 hertz range). Electric and magnetic fields from 60 hertz electric power (as well as microwaves and radio waves) are sometimes called non-ionizing radiation. The term "radiation" simply means energy transmitted by waves. "Ionizing" radiation has enough energy to strip electrons from atoms. Extremely low frequency EMF, non-ionizing radiation, cannot do this. Most of the recent research suggests that the magnetic, rather than the electric, fields are more likely to produce significant health or biological effects, if such effects occur. People are exposed to sources of electromagnetic fields every day through their use of electric appliances and equipment and exposure to electric power transmission lines. Any electric appliance is a potential source of exposure to EMF (for example, hair dryers, coffee makers, dishwashers, microwave ovens, refrigerators, televisions, washing machines, vacuum cleaners, digital and analog clocks, baby monitors, electric blankets, copy and telefacsimile (FAX) machines, computer monitors, power saws, and power drills). At this point, there is no consensus that exposure to EMFs, such as those found in the everyday environment, has an adverse effect on human health. There are no national standards in the United States for exposure to 60 hertz electromagnetic fields; although some states have adopted standards to limit the permissible magnetic field strength along rights of way of electric transmission lines (EPA 1992).

Electromagnetic radiation associated with the proposed routine and MFE flying training operations is limited to extremely low amounts from navigation and communications equipment and from electronic combat targets on the existing air-to-ground weapons ranges or from portable simulators, which require no permanent installation. Emissions from these sources, consisting of radio frequency or microwave radiation, are lower in energy than those of ionizing or visible (light) radiation. Systems producing radio frequency or microwave radiation include radio and television transmitters, microwave ovens, radar systems, microwave communication equipment, medical equipment sterilization systems, and welding equipment.

The Office of Technology Assessment (OTA) report, which is hereby incorporated by reference, was prepared for the Subcommittee on Water and Power Resources of the House Committee on Interior and Insular Affairs, in response to a request for a review of the health effects of high-voltage transmission lines. As noted, the report concluded that "In our view, the emerging evidence no longer allows one to categorically assert that there are no risks. *But it does not provide a basis for asserting that there is a significant risk*" [emphasis added] (U.S. Office of Technology Assessment 1989, 3).

More recently, the Council of the American Physical Society released a statement regarding the potential link between human health and electromagnetic fields emanating from common power lines and electrical appliances.

The Society concluded that "[t]he scientific literature and the reports of reviews by other panels show no consistent, significant link between cancer and power line fields. . . . Furthermore, the preponderance of the epidemiological and biophysical/biological research findings have failed to substantiate those studies which have reported specific adverse health effects from exposure to such fields (American Physical Society 1995).

HAZ-008 COMMENT: Will ordnance containing white phosphorous be used on the ranges? Include a description of each ordnance type which could be potentially used by military aircraft or on the training ranges. What percentage of the inert ordnance will have spotting charges? What types of spotting charges will be used in the training ordnance? Will Hot or Cold Spot cartridges be used? Describe in full the chemical make-up of all inert and live ordnance which could be potentially used in the proposed training scenarios. Include a discussion on plans for range decontamination and monitoring of all environmental consequences of all proposed activities.

RESPONSE: The use of white phosphorous munitions on water-soaked areas (wetlands), including all areas covered by snow, was suspended throughout Army withdrawn lands on September 10, 1991. The Air Force has replaced white phosphorous rounds with HEI/TP rounds and does not use white phosphorous in Alaska, as stated in section 4.4.2.1 of the EIS. The types of ordnance authorized for use by the Air Force on the Oklahoma (R-2202) and Stuart Creek (R-2205) air-to-ground weapons ranges are described and assessed in the *Environmental Assessment of the Upgrade of Target Arrays: Fort Wainwright and Fort Greely, Alaska* (USAF 1992b). This document spells out the types and amounts of ordnance authorized for use under varying climatic conditions and fire indices, as determined by the U.S. Bureau of Land Management, the U.S. Army, and the Air Force (AFR 50-46, 11 AF Suppl.). There would be no change in the types or amounts of munitions acquired, transported, stored, or used under any of the alternatives (see section 4.4.2.3 and Appendix C).

The potential environmental impacts of military use (including Air Force activities), mitigations to address any impacts, and management plans governing the use of the Oklahoma and Stuart Creek air-to-ground weapons ranges are presented in the following documents:

- U.S. Army. 1980. *Final Environmental Impact Statement: Land Withdrawal, 172D Infantry Brigade (Alaska) at Fort Greely, Alaska*. Fort Richardson, Alaska: U.S. Army.
- U.S. Army. 1980. *Final Environmental Impact Statement: Land Withdrawal, 172D Infantry Brigade (Alaska) at Fort Wainwright, Alaska*. Fort Richardson, Alaska: U.S. Army.
- U.S. Air Force. 1992. *Environmental Assessment of the Upgrade of Target Arrays: Fort Wainwright and Fort Greely, Alaska*. Elmendorf AFB, Alaska: U.S. Air Force.
- U.S. Bureau of Land Management and U.S. Army. 1994. *Fort Greely: Proposed Resource Management Plan [and] Final Environmental Impact Statement*. Anchorage, Alaska: U.S. Bureau of Land Management.
- U.S. Bureau of Land Management and U.S. Army. 1994. *Fort Wainwright Yukon Maneuver Area: Proposed Resource Management Plan [and] Final Environmental Impact Statement*. Anchorage, Alaska: U.S. Bureau of Land Management.

The annual range cleanup program results in approximately 20 percent of each range being cleaned annually. This 20 percent annual cleanup would occur over different sections of a range each year so that during any five-year period, all sections of a range would undergo at least one cleanup. The 172nd Infantry Brigade (Alaska) Environmental Program, which encompasses Forts Greely, Wainwright, and Richardson, is managed by the Brigade Environmental Committee. Under this program, each installation establishes internal procedures to monitor all actions (under way or proposed) that may affect the environment, identifying and reporting to the committee any actions having potentially adverse consequences. The committee selects the appropriate actions the installation should take in order to minimize or eliminate any environmental impact (U.S. Army 1980a; U.S. Army 1980b).

HAZ-009 COMMENT: This region of the state [Interior Alaska] is prone to summer fires and, in fact, one major fire recently was shown to have been started by jettisoned chaff and/or flares from a military exercise.

The Air Force's unofficial probability of 1 in 100,000 for the potential of an unburned flare actually reaching the ground accounted for a costly fire in Yukon-Charley Rivers National Preserve.

We have personally heard the story of a military aircraft that started a large fire as it overflowed and dropped flares in the Yukon-Charley Rivers National Preserve and was only discovered because this same person reported the situation. Your credibility is not good in this regard and we do not want to see increased activities on your part.

The Draft EIS proposes no mitigation measures, stating "existing employment procedures are designed to prevent any increased risk of wildland fires or other environmental degradation (Level I Impacts)." The intent of this statement and the Air Force plan is unclear. The Draft EIS analysis is clearly deficient in this regard because its wildfire management policies have not proven effective in an Alaskan setting. Several years ago, during military training exercises over Yukon-Charley, nearly 35,000 acres of park land were set afire. With a heightened level of military activity, increased wildfires are a significantly increased threat to the park and all biological resources therein. It is unacceptable to dismiss the increased risk for Yukon-Charley and elsewhere by stating that standing mitigation procedures will be sufficient to suppress a fire. Adequate response to the increased risk requires that the Draft EIS directly address the potential for wildfires resulting (separately) from increased use of avoidance flares and fuel jettisoning tactics. In addition, specific mitigation plans must be proposed and discussed for each of these possible wildfire sources.

Because mistakes happen in the simulated "heat of battle," fuels and fire indices vary widely across the course of a jet's training mission and flares are discharged as a reaction to a threat, regardless of AGL in real life, in addition to current Air Force restrictions on flare usage I'd propose as a further mitigation measure to all alternatives that flares NOT be loaded on aircraft conducting air-to-air training during times of HIGH fire danger in the areas their flight activities are to be conducted, restrict usage to air-to-ground sorties destined for impact areas and simulated surface-to-air missile threats.

It only takes one flare for someone to experience personal injury or for a fire to start. We are aware that flare usage has been the culprit in starting several fires in Alaska. The Draft EIS fails to even briefly mention this reality or provide any analysis of the potential for fires in the future. What are the potential health risks if a person (child) were to inadvertently light a flare? Will the person be blinded, burned, etc.? What is the potential for contamination of surface water by chemicals associated with expended flares and possible hazards of ingestion by wildlife and domestic livestock?

RESPONSE: Please refer to sections 3.4.2.2 and 4.4.2.1.2. The flares used by the Air Force in Alaska are similar to highway safety or boating signal flares, but burn hotter (maximum temperature of 1,000° F) and burn out more quickly (within four to five seconds after dispensing/igniting). Although there is a possibility that a flare could fall to the ground unignited, the Air Force-established unofficial probability rate for this occurring is 1 in 100,000. Flares used over non-DoD lands are equipped with an ignition device that remains with the flare dispenser on the aircraft (i.e., it is not attached to or dropped with the flare). Additionally, a very hot flame (approximately 800° F) is required to ignite a flare. These factors make it improbable that someone finding an unignited flare on the ground would be able to ignite it, inadvertently or deliberately. If they were to do so, however, they could sustain burn injuries.

Flare pellets are designed to burn completely within 4 to 5 seconds of release. Air Force flight manuals prohibit use of flares over DoD-owned land where a fire hazard exists at altitudes lower than 700 feet AGL, which is considered to be a minimum safe employment altitude that allows for burn-out plus three seconds of fall time to ensure that the flare is extinguished prior to reaching the ground.

As stated in the EIS (see section 3.4.2.4), the use of flares in Alaska is and would continue to be conducted in accordance with the following restrictions, which are considerably more stringent:

- Overland, from June 1 through September 30, flares may only be employed above 5,000 feet AGL; and
- Overland, from October 1 through May 31, minimum altitude for flare use is 2,000 feet AGL. (This is the period when there is likely to be 100 percent snow cover.)

The Air Force's multi-fold increase in safety margin for flare burnout is a proactive approach to preventing a source of ignition from reaching the ground. Using these guidelines provides an adequate margin of safety, and flare use during both routine training and MFEs would not be expected to result in any adverse impact. Additionally, in its Report to Congress, the National Park Service (NPS 1994, 10.7) states that "eliminating the dropping of flares below 2,000 feet elevation eliminated the potential for wildfire and associated impacts to endangered species on the Buenos Aires National Wildlife Refuge in Arizona." The operational restrictions for flare use in Alaska meet or substantially exceed the altitude restriction sanctioned by the NPS.

The primary combustion product of flares is magnesium oxide (MgO). The threshold level of concern for MgO concentrations in air is 10 milligrams per cubic meter (mg/m³). Concentrations approaching that level would only occur in the proximity of the burning flare. Potential for contamination of surface water from this source is negligible. Given the low probability of a flare falling to the ground unignited and its presumably unpalatable smell, taste, and texture, the probability of ingestion by an animal is remote.

The wildland fire in the Yukon-Charley Rivers National Preserve, known as the Erickson Creek Fire, was first reported on June 21, 1991, and eventually covered 34,260 acres. It was given a low priority by the Alaska Fire Service (AFS) and monitored rather than actively suppressed. It was finally declared out by the AFS on October 31, 1991. Although it is possible that a flare dropped from below the authorized minimum altitude may have started the fire, this was never positively concluded.

HAZ-010 COMMENT: The Draft EIS fails to provide adequate information to assess the potential impacts of emergency fuel jettisoning procedures.

RESPONSE: Section 3.4.5.2 of the Draft EIS describes two emergency fuel jettisoning areas identified for Eielson and Elmendorf AFBs. Of the aircraft based in Alaska, only F-15s and KC-135s are capable of jettisoning fuel. Air Force command directives specify that, when circumstances permit, fuel jettisoning should be carried out over unpopulated areas and more than 5,000 feet above the ground. Jettisoning above 5,000 feet AGL is preferred to allow sufficient time for the fuel to evaporate as much as possible. For larger fuel jettisoning, performed by larger aircraft such as a KC-135, release altitudes above 20,000 feet are specified. While increasing the release altitude does not significantly decrease the fraction of fuel reaching the ground, it does allow considerably more time for atmospheric processes to disperse the fuel. 11th Air Force and other aircraft deployed to Alaska do not jettison fuel as a matter of convenience. Emergency fuel jettisoning is reserved for critical situations when jettisoning fuel is necessary to enhance the ability of an aircraft to safely recover during an inflight emergency.

HAZ-011 COMMENT: What types of lasers will be used? Will a health monitoring program be established? What are the potential risks to residents? To wildlife and domestic animals of all

conceivable laser operations? What are the impacts of lasers aimed above the horizon? Considering the close proximity of Alaska highways, specular reflections could occur. What are the potential impacts? What actions will be taken to remove items which may pose a specular reflection hazard in the paths of lasing aircraft and surrounding areas within the Nominal Ocular Hazard Distances established by DoD? What are the potential burning hazards to humans, domestic animals, wildlife, and lands associated with laser use?

What are the laser footprints associated with the proposals to conduct weapons delivery at all ranges which aircraft would use? What are the laser footprints on the ground? Will these laser footprints extend out of the current lands withdrawn?

What actions will be taken to protect people from exploring and observing training activities within the Nominal Ocular Hazard Distances? Will these Nominal Ocular Hazard Zones be posted on the ranges? What types of laser systems have been approved for use and what is the Nominal Ocular Hazard Distance for viewing by the unaided eye?

Will the birds, moose, deer, and other wildlife be given protective goggles as well? Will other state, federal, emergency response personnel be notified of the potential hazards? Will hunters, recreationists, and sightseers also be provided with goggles? Are appropriate warning signs posted?

RESPONSE: As stated in the Draft EIS (see section 3.4.3), the F-15E and F-16C can operate with Low Altitude Navigation and Targeting Infrared for Night (LANTIRN) during air-to-ground training and MFE missions. The LANTIRN system targeting pod has two operational modes: combat and training. The training mode is "eye-safe" and is approved for unrestricted use throughout the MOAs [AFR 50-46, 11 AF Suppl. 1, 15 May 1992, para. 6-1b(11)]. See sections 3.4.3.1 and 3.4.3.2 of the EIS for a detailed description of these modes.

Laser use is subject to the requirements of Air Force Occupational Safety and Health (AFOSH) Standard 161-10, *Health Hazards Control for Laser Radiation*. This standard is based on the recommendations of the American National Standards Institute [ANSI Z136.1-1980 (1986)] and was established to prevent possible harmful effects to personnel and the public resulting from exposure to laser radiation at all Air Force facilities and ranges. AFOSH 161-10 includes the following procedures in addition to those prescribed by ANSI Z136.1-1980 (1986):

- A laser device is activated only on established laser targets on Department of Defense land;
- Special tests or deviations from this procedure require safety analysis and approval;
- Two-way communication between the test vehicle and the range controlling agency is required;
- Laser operations are not conducted with standing water or ice in the immediate target area to prevent reflection of the beam outside the cleared range;
- Test-crew members, all test personnel, and any visitors who may be at risk use appropriate glasses, goggles, or visors when lasing a reflective target;
- Weapon system operators are trained in the laser hazards of the equipment and the control measures to prevent injury during training or operational laser tests;
- Range access roads are cleared and secured, and signs are displayed at designated checkpoints where lasing operations are scheduled.

Given these procedures, no effect on public health or safety or the environment is expected to result from the continued use of lasers in the MOAs and on the air-to-ground weapons ranges.

The Stuart Creek air-to-ground weapons range is on the Yukon Maneuver Area of Fort Wainwright, which was withdrawn for military purposes in 1958. The Oklahoma air-to-ground weapons range is located on Fort Greely, which was withdrawn in 1961. The withdrawn lands have been in continuous use by the military since 1958 and 1961, respectively. Both weapons ranges are closed to the public, and casual or recreational use (e.g., hunting,

fishing, trapping, etc.) is not permitted. Signs are maintained at all major road and trail entrances to the withdrawn lands. The eastern boundary of the Oklahoma air-to-ground weapons range and the western boundary of the Stuart Creek air-to-ground weapons range are at least 10 to 15 miles from the Richardson Highway. Grazing and other agricultural activities do not occur on Fort Wainwright or Fort Greely.

For additional information, refer to Appendix B.1 of the *Environmental Assessment of the Upgrade of Target Arrays: Fort Wainwright and Fort Greely, Alaska* (USAF 1992b), which contains an "Alaskan Range Study for Laser Operations" prepared by the Air Force Occupational and Environmental Health Laboratory, Brooks AFB, Texas.

HAZ-012 COMMENT: The assumption is made [on page 2-3] that "routine and MFE training would include the use of chaff and flares. . ." This is in conflict with the 11th Air Force policy stated on page 3-79 that the use of flares is currently prohibited for MFEs. Does the Air Force intend to reverse its present policy?

RESPONSE: The Air Force proposes to authorize the use of flares for routine and MFE training in all permanent MOAs (i.e., existing and proposed). This use would be in accordance with 11th Air Force operational procedures for flare employment spelled out in section 3.4.2.4.

HAZ-013 COMMENT: Summer is fire hazard time. Who will be responsible for controlling forest fires that might be caused by military planes, by accident or otherwise?

The Air Force starts fires every summer, frequently refusing to acknowledge that they did so, and not notifying the Bureau of Land Management when they do start fires.

RESPONSE: The Alaska Interagency Fire Coordination Center (AIFCC) coordinates wildland fire suppression efforts by the U.S. Bureau of Land Management's Alaska Fire Service (BLM/AFS) and the State of Alaska's Division of Forestry. The *Alaska Interagency Fire Management Plan*, which is approved by various state, federal, and private land managing agencies, governs wildfire suppression efforts in Alaska. According to the BLM, lands in Alaska are protected from wildfires under four management options:

- Critical Protection Areas are areas where human life and property are at risk, such as around towns and villages. Fires in these areas take unquestioned priority over all other fires and receive immediate and aggressive attention.
- Full Protection Areas are privately owned, uninhabited lands or lands that contain valuable resources such as commercial timber or historic structures. Aggressive initial attack and suppression are used until the fire is declared out.
- Modified Action Areas are lands that require a higher level of fire protection during critical burning periods, but a lower level when the risk of large fires is reduced. Managers consider the value of resources at risk versus the cost of suppression.
- Limited Action Areas are remote lands where the cost of fire-fighting exceeds the value of the resources present. Close monitoring is the only action taken as long as the fire remains confined in a limited action area and does not threaten to burn into a higher priority area.

According to the AIFCC, "The threat of large wildfires usually decreases after mid-July as changing weather patterns bring more moisture and cooler temperatures" (BLM 1993). The conversion date (a traditional milestone in Alaska's fire season, when the worst of the fire season is usually over and fire fighting efforts wind down) is

specified in the *Alaska Interagency Fire Management Plan*. The date can be changed or cancelled depending on the severity of the fire season (BLM 1993).

The 11th Air Force coordinates with the BLM/AFS to ensure separation between military and BLM/AFS aircraft operations, as specified in a Letter of Agreement between 11 AF/DO and BLM/AFS (10 Dec 93).

2.9 Land Use

LAN-001 COMMENT: We recommend that the following information be included in the EIS to evaluate possible mitigation measures for the noise effects of the proposed project and the alternatives: The existing and anticipated land uses near the proposed training ranges that have a sensitivity to noise and the number of people living in those areas.

What is the population distribution, size, and age of residents below the proposed airspace? Where are the population centers, small towns, settlements, schools, hospitals, medical facilities, and religious institutions? How many children will be impacted? How many of these children are living at or below poverty level?

RESPONSE: Section 3.8 of the EIS provides information on the location of population centers in the four regions within the Region of Influence. Towns and settlements are depicted on the figures in section 3.8. The other information and analyses requested would be appropriate for frequent low-altitude overflights along defined routes or around airports. But, given the intermittent and widely dispersed nature of aircraft operations that would occur in the MOAs, it is neither practical nor useful for determining the potential effects of the Proposed and Alternative Actions.

Section 4.8.1 focuses on the potential effects of the Proposed and Alternative Actions on land use and aesthetics, particularly rural/remote residential land uses and residential land uses on and adjacent to Eielson and Elmendorf AFBs. The analysis relies on the ANSI revised standard on *Sound Level Descriptors for Determination of Compatible Land Use* (ANSI S12.40-1990). Day-Night Average A-Weighted Sound Levels (DNLs) would be less than 55 dB in all MOAs (existing and proposed) under each of the alternatives. According to ANSI, DNL less than 55 dB is "likely to be considered compatible" with the following land uses: residential, transient lodging, school classrooms, libraries, religious facilities, hospitals and other health-related facilities, neighborhood parks, playgrounds, golf courses, riding stables, water recreation, cemeteries, office buildings, commercial establishments, agriculture (including livestock rearing), and extensive natural wildlife and recreation areas. In addition, the Air Force adheres to the operational restrictions outlined in *FAR §91.119* and *AFR 60-16* that require a minimum operating altitude of 1,000 feet AGL over towns and settlements and a minimum avoidance distance of 500 feet for structures in less populous areas.

For Eielson and Elmendorf AFBs, the EIS indicates the land area and number of on- and off-base residents exposed to DNL greater than 65 dB, as well as the number of on- and off-base residents likely to be highly annoyed by their exposure (see sections 3.8.3.6, 3.8.4.4, 4.8.3.1, and 4.8.3.2). Under the Proposed Action or any of the Alternatives, a substantial number of on-base residents at Eielson AFB (689) and off-base residents at Elmendorf AFB (504) would be newly exposed to DNL \geq 65 dB. At Eielson AFB an estimated 1,283 on-base residents in the DNL 65 to 69 dB range would experience a 1 dB increase while some 45 would experience a 2 dB increase. The 280 on-base residents in the DNL 70 to 74 dB range would experience a 1 dB increase. None of the off-base residents would experience a greater than 1 dB increase. At Elmendorf AFB, 14 on-base residents would experience a 1 dB increase in the DNL 70 to 74 dB range, and all other on-base residents would experience an increase of less than 1 dB. Off-base, 217 residents exposed to DNL \geq 65 dB would experience a 1 dB increase; all other off-base residents would experience a less than 1 dB increase.

As stated in the EIS (see sections 4.8.3.1 and 4.8.3.2), the potential adverse effects associated with the Proposed and Alternative Actions at Eielson and Elmendorf AFBs would be minimized by the following factors:

- 1) Quiet hours are generally enforced between 11:00 p.m. and 7:00 a.m.

- 2) MFE sorties would normally occur during the daytime (i.e., between 7:00 a.m. and 10:00 p.m.) with only a small number of arrivals between 10:00 p.m. and 11:00 p.m. during twice-yearly nighttime MFEs.
- 3) The Air Force limits non-mission essential use of afterburners.
- 4) The Air Force has an ongoing policy of routing flight tracks to avoid overflying noise sensitive areas, to the maximum extent possible, within the parameters of runway alignment, wind direction, and mission requirements.
- 5) It is Air Force policy to ensure that the proper Noise Level Reduction measures (outdoor to indoor) are incorporated in the design and construction or modification of all on-base buildings situated within the DNL \geq 65 dB contours.
- 6) As a result of the extreme climate conditions of Eielson and Elmendorf AFBs, energy conservation practices (e.g., insulation) in both on- and off-base housing contribute to indoor noise level reductions.
- 7) Since the mid-1970s, the Air Force has published Air Installation Compatible Use Zone (AICUZ) studies, which advise local governments to direct noise sensitive development away from high noise areas near Air Force Bases. The AICUZ program continues in effect at Eielson and Elmendorf AFBs.

LAN-002 COMMENT: The Final EIS should ensure that the potential for adverse impact to each of the conservation system unit values and the Department of Interior's associated Congressional mandates for management of these values have been adequately addressed. See, for example, the National Park Service *Report to Congress: Report on Effects of Aircraft Overflights on the National Park System* (September 1994). Although the report excluded Alaska park areas, much of the information and approach is relevant. For example, according to the Draft EIS, military aircraft use levels in the SUSITNA MOA would be reduced while those in the nearby FOX MOA [proposed] would increase. The Final EIS should directly address how the proposed changes would affect the values for which Denali National Park and Preserve and the Gulkana and Delta National Wild and Scenic Rivers were established.

Quietude is an essential attribute and resource for recreational enjoyment of such areas. They were established first; they should be protected in accord with the purposes for their establishment.

The table on recreation resource impact levels implies that the state and federal conservation units will primarily have recreation uses affected. However, because the impacts of the proposed overflights will affect the purposes for which these areas were established, which in some cases include recreation, but primarily the wildlife and other natural values, there should be another chart in the section on Conservation System Units (CSUs) listing the mandated purposes of the CSUs and how these would be affected.

The National Environmental Policy Act of 1970 states that "it is the continuing responsibility of the Federal Government to use all practicable means . . . to improve and coordinate Federal plans, functions, programs and resources to the end that the nation may . . . preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice." In proposing the expansion of Air Force activity in Alaska with new Alaska Military Operations Areas (MOAs) imposing significant impacts on Yukon-Charley Rivers National Preserve and other units of the National Park System and other conservation units, the Department of the Air Force has clearly violated the intent of NEPA. The Department of the Air Force's plans for new Alaska MOAs must be revised in a manner which recognizes the special nature of units in the National Park System and honors the higher level of environmental protection accorded those units by Congress.

RESPONSE: Military overflight is not incompatible with the uses for which Conservation System Units were set aside. The most direct evidence that Congress did not intend to restrict military overflights of these units is found in the legislative history:

The Committee understands that extensive military overflight of Alaska occurs as part of the role and mission of Alaska Command (subsequently, 11th Air Force). It is not the intent of the Committee that these overflights be prevented. In general, the Committee has adopted a policy that the use of airplanes is to be continued, and the Committee feels that this policy should apply to military overflights as well as civilian operations (1980 U.S. Code & Cong. Ad. News 5193).

The criteria and methodologies employed in the National Park Service *Report to Congress: Report on Effects of Aircraft Overflights on the National Park System* (NPS 1994) are very similar to those used in the EIS (see response to REC-003 Comment). Briefly, the potential for greatest impact was assigned to high sensitivity (i.e., primitive and semi-primitive) areas where mechanical sounds are uncommon. We concur that, although the report excluded Alaska park areas, much of the information and approach is relevant. Information on the ANILCA-mandated purpose(s) for which the CSUs were established has been added to section 3.8.6 of the EIS. However, the resources of the various CSUs are described and potential effects on them addressed in the appropriate sections (e.g., biological resources in sections 3.5 and 4.5, recreation resources in sections 3.6 and 4.6, and land use in sections 3.8 and 4.8). Proposed mitigation is described in section 4.12.

As a point of clarification, the complete passage from NEPA [42 U.S.C. §4331(b)(4)] states:

"... it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs and resources to the end that the Nation may — (4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice."

NEPA is fundamentally a law of disclosure, which requires federal agencies to communicate to decision-makers and the public what society gains or loses with each decision regarding a major federal action. This disclosure is the purpose of the EIS. Section 101 of NEPA speaks of the necessity for society and its decision-makers to balance competing demands.

LAN-003 COMMENT: At the public hearing held in Glennallen on September 28, 1994, the company responsible for the Environmental Impact Studies acknowledged that they had neither obtained comprehensive nor conclusive information on private property and cabins within FOX 1, nor are they familiar with the extent of recreational use by private citizens and commercial operators in this area.

FOX is just north of the recreation area comprised of Lake Louise, Lake Susitna, and Tyone Lake. There are four lodges, approximately 15 year-round families, another 15 or so families who live here part of the year, and as many as 200 or so weekenders with increased use on holidays and during hunting seasons. There are 450 properties on the three lakes and about 250 cabins which are used at various times. The FOX area includes Clarence and Watana Lakes which are used by the public throughout the year, especially during the summer. The southern half of FOX includes many lakes and streams that are used for recreation, hunting, and fishing, again, especially during the summer.

RESPONSE: The presence of lodges and privately owned cabins on the lakes and rivers throughout the area underlying the proposed FOX MOA was noted and factored into the analysis of potential effects in the Final EIS (see sections 3.6.4.2.2 and 3.8.4.2).

LAN-004 COMMENT: The Cold War is over and the U.S. won it. The Defense Department budget is declining. I see no reason for the Air Force to designate over 71,000 square miles of airspace in Alaska as permanent, new MOA.

I am shocked to learn that the U.S. Air Force has proposed designating 71,650 square miles of Alaskan airspace for low-level (5,000 feet above ground) supersonic jet training flights.

I want to protest in the strongest terms the Air Force proposal to upgrade 71,650 square miles of airspace that will have an impact on 13 million acres in Alaska.

I understand that the United States Air Force wishes to designate 71,650 square miles of airspace in Alaska for supersonic jet training exercises at 5,000 feet above ground. I strongly urge that this proposal be dropped.

It should be made clearer how much airspace in the entire state of Alaska and over ANILCA conservation system units has already been permanently designated as Special Use Airspace and MTRs by the military. Permanent designation of 71,650 square miles (45,865,000 acres) of additional MOA Special Use Airspace is proposed in the EIS. Temporary MOAs were recently designated for 33,155 square miles, or 21,219,210 acres according to the 1993 MFE EA. Therefore, this acreage in TMOAs should not be considered as the existing, baseline conditions, but should be included in determinations of increased noise impact area.

The Draft EIS failed to provide up-front information on the square mileage of the proposed expansions of SUA and MTRs. This information was not provided in any cumulative fashion till page 3-83. Finally, we are told that 71,650 square miles of airspace is involved in the proposed expansion. How many acres of land will be impacted?

RESPONSE: Information on the amount of land (square miles and acres) that would underlie the MOAs has been added to Chapter 2 of the Final EIS (see section 2.3.6). Land area has been calculated for each alternative, including Alternative A—Modified (the Preferred Alternative). Some 37,760 square miles underlie existing permanent MOAs. The Proposed Action would establish new MOAs over an estimated 25,660 square miles, not 71,650; and would result in a total of 63,420 square miles underlying MOAs. Alternative A—Modified would encompass slightly less in that it would reduce the amount of land under the existing permanent MOAs by 1,130 square miles and add 24,150 square miles of land under new MOAs, for a total of 60,780 square miles underlying MOAs.

It is important to note that the Proposed and Alternative Actions and the EIS deal with airspace. No land except the existing air-to-ground weapons ranges, which are the subject of previously completed EISs and EAs, will be physically affected. Where the EIS predicts that a land use may be adversely affected, mitigation measures to eliminate or minimize the effect have been identified. The EIS does not assess Military Training Routes (MTRs) directly except where they are coincident with a MOA.

LAN-005 COMMENT: Upon implementation of the Record of Decision and the State's receipt of the federal consistency determination per *15 CFR 930.34*, the Military Operations Areas activity will be reviewed, according to the time allotted in the federal coastal zone management regulations *15 CFR 903.35* (45 days), for consistency with the standards of the Alaska Coastal Management Program (ACMP). The State takes this opportunity to address potential ACMP issues to assist the Department of the Air Force in resolving any outstanding issues prior to the ACMP review. Although much of the proposed project takes place outside the coastal zone, concerns that could have significant impact on the coastal zone were raised. Specifically mentioned issues were regarding noise levels adversely affecting wildlife, decreasing enjoyment of recreation and subsistence gathering, as well as reducing access to, and therefore use of, state lands because of aircraft safety concerns.

RESPONSE: The federal determination for consistency with the Coastal Zone Management Act and the standards of the ACMP is currently being prepared. Coordination with the Alaska Division of Governmental Coordination will be completed prior to the issuance of a Record of Decision.

LAN-006 COMMENT: A majority of the expanded and proposed permanent MOAs are above state owned or state selected lands. These lands are used for dispersed recreation, hunting, fishing, trapping, mining, and in some areas, occupied by remote cabins. Primary access to these state lands is via small aircraft—both private and charter. At a minimum, extensive overflights will discourage some pilots from flying in these areas, resulting in reduced use of state lands.

RESPONSE: MOAs do not exclude the public; rather, this special use airspace is designed to confine military high-speed, maneuvering training operations to specific charted areas. Civil aviation is not precluded from operating in MOAs, but must be cognizant of potential military flight training activities that may occur in the airspace. The Air Force has conducted routine flight training operations in its permanent MOAs since 1976, a variety of exercises for 16 years, and MFEs for the last 3 years. There is no evidence to indicate that use of this airspace has diminished use of any underlying state lands. Potential impacts to the uses of underlying lands, regardless of ownership, are addressed in appropriate sections in the EIS (e.g., recreational resources, subsistence resources, and land use).

LAN-007 COMMENT: Frequent low-level jet overflights and sonic booms will diminish the value enjoyment of the users [of state lands]. This can be caused by disruption of wildlife, noise, and visual intrusion.

RESPONSE: The EIS identifies resources and land uses that may be affected by the Proposed and Alternative Actions. Mitigation to eliminate or minimize these impacts is also part of the EIS.

LAN-008 COMMENT: Having been "buzzed" by low flying aircraft, I do not look forward to increased noise in my neighborhood. The Air Force does not address the possibility of diminished property values either.

RESPONSE: Little research has been done on the effect of aviation on real estate values. In 1985, the FAA published a report that summarized the effects of aviation noise in many areas, ranging from human annoyance

to impact on real estate values. The report also synthesized the findings of other federally funded studies that had been conducted over the past two decades on the same subject. The purpose of the report was to present the critical findings and conclusion of pertinent research, providing, when possible, a "bottom line" conclusion, criterion, or perspective for the reader. The bottom line conclusion in the FAA report regarding the effect of aviation noise on real estate values near airports is that increased noise has been shown to decrease the value of property by only a small amount (about 1 percent per decibel increase). The report goes on to point out that this negative effect may be offset by other socioeconomic factors such as access to air transportation and employment opportunities. Finally, the report states that the price and desirability of a residence are influenced by a number of factors (e.g., state of repair; and proximity to shopping, schools, and other amenities), all of which are subject to change over time. The annoyance at aircraft noise remains just one of the considerations that affects the market value of a home.

Given the fact that the vicinity around Elmendorf AFB has been exposed to nearly equivalent sound levels for years, the increase in off-base area exposed to $DNL \geq 65$ dB would not be expected to appreciably affect the area's housing market.

LAN-009 COMMENT: Wilderness should be evaluated separately. Wilderness is one of the major qualities for which Alaska is world famous. The loss of solitude and quiet in great geographic areas is not adequately analyzed in the Draft EIS. The experience of natural quiet is one of the most rare resources in the world. The Final EIS must consider the temporary and permanent effects to wilderness qualities of national and international significance. Wilderness is important for fish and wildlife, recreational, subsistence, scientific, educational, aesthetic, and spiritual values. Wilderness clearly requires substantial treatment as a separate topic. Impacts to areas designated in the National Wilderness Preservation System, as well as areas suitable for future designation according to wilderness reviews required under ANILCA (section 1317 and other sections), and *de facto* wilderness areas of the state and other public lands were not adequately treated in the Draft EIS.

RESPONSE: Opportunities for solitude are an integral part of the wilderness resource, and an absence of man-made sound contributes to a sense of solitude. While low-altitude military overflights can certainly intrude upon solitude, the momentary disruption does not destroy the wilderness aspect of an area. Nor do low-altitude military overflights preclude the designation of a wilderness area by Congress. Impacts to wilderness and wilderness use attributable to military aircraft overflight are moderate when compared with those associated with mining, logging, and other consumptive and terrain- and habitat-altering uses that can occur on public lands not specifically designated as wilderness. These consumptive interests also compete for land that could eventually be designated as a federally protected wilderness area.

The resources and characteristics inherent in wilderness areas (designated and *de facto*) have been considered in the sections on biological, recreation, and subsistence resources, and land use. The wilderness qualities of an area are weighted heavily in the methodology used to determine impacts (see especially sections 3.6.1 and 4.6.2). Little designated wilderness occurs in the Region of Influence. Designated wilderness in the northern portion of Lake Clark National Park and Preserve underlies the existing STONY A MOA. Mitigation being considered for the STONY A MOA would shift the MOA boundary to the west, entirely away from Lake Clark National Park and Preserve. Designated wilderness in the Innoko National Wildlife Refuge underlies the STONY C TMOA, which is only considered as part of the No Action Alternative.

LAN-010 COMMENT: We, the public, will no longer stand idly by and witness the destruction of our public lands under the guise of military security. I'm certain that existing training areas in Alaska are more than sufficient to ensure adequate preparation for Air Force pilots. No new training areas are

warranted, nor will they be accepted by the public. The time has come for the military to become responsible stewards of our public lands. Dump this plan now, and join the growing effort to save what little nature we have left on this fragile planet.

I urge you to find another solution for your "training exercises." Your proposal is incompatible with the existing uses of the land.

I am not opposed to keeping our Air Force pilots well trained, but feel that Alaskans are taking the brunt of a military land grab. Even [the Air Force] stated that they don't need all this land now, but are looking down the road 20 years. As the military gets pushed out of the Lower 48 more and more, we Alaskans do not want to be living in the center of increasing military training.

RESPONSE: Generally, aircraft overflights are not uses of the underlying land. With the advent of aviation, the common law rule of ownership of the surface to "the heavens" was voided. Unless and until overflights amount to a trespass, nuisance, or a taking, there is no "use" of the surface that accompanies aircraft overflights. This determination is based on the existence of legally enforceable property rights in the surface estate, and the altitude, frequency, and duration of the overflights.

LAN-011 COMMENT: This comment number is not used in the EIS.

LAN-012 COMMENT: Your plan will impact greatly areas which have been preserved in one form or another for their natural integrity, including the Tetlin National Wildlife Refuge.

RESPONSE: Tetlin National Wildlife Refuge is not located in the Region of Influence. The northern edge of the refuge is approximately 100 miles south of the proposed YUKON 3 MOA. It is about 50 miles south of the TANANA MOA, which is only considered as part of Alternative B.

LAN-013 COMMENT: Our family has a cabin in Talkeetna where we expect to experience peace and quiet, not sonic booms. The village of Talkeetna is in the proposed expansion as are many other communities and prime recreation areas.

RESPONSE: Talkeetna does not underlie any MOA. The proposed FOX MOA would be located about 50 miles northeast of the community, while the existing SUSITNA MOA is located approximately 10 miles west. Both of these MOAs have, or would have under Alternative A—Modified, floors of 5,000 feet AGL. In addition, use levels in the SUSITNA MOA would be lower under any alternative except the No Action Alternative.

LAN-014 COMMENT: I have become aware of the possible escalation in training flights over areas in which I guide canoeing and sea kayaking trips. The purpose of this letter is to let you know where we lead trips in the hope that you can avoid them. At the present time, we lead trips in the Swan Lake Canoe System and on the Delta, Gulkana, Kasilof, Kenai, Matanuska, and Nenana rivers. Our sea kayaking trips are in the Harriman Fjord/Port Wells area of Prince William Sound. We have plans to expand our canoe trip program to include Birch Creek and the Yukon River.

RESPONSE: The Kenai Peninsula (including the Swan Lake Canoe System and the Kasilof and Kenai rivers), Prince William Sound (including Harriman Fjord/ Port Wells), and the Matanuska River are not part of the Region of Influence. The Delta and Gulkana rivers underlie the proposed FOX MOA, but mitigation is being considered that would shift the MOA boundary westward to completely avoid these rivers. The Nenana River flows beneath the proposed FOX MOA for approximately the first 25 miles, but one of the more popular put-ins is located just outside (west) of the MOA boundary. Under Alternative A—Modified, the FOX MOA would have a floor of 5,000 feet AGL.

2.10 Mitigation

MIT-001 COMMENT: We propose the Air Force limit the number and timing of MFEs per year, limit the level of routine flying to approximately 1990 levels, and make other spatial and temporal adjustments to its proposal while agencies monitor and assess impacts over the next five years.

RESPONSE: The Air Force is committed to reaching a balance between the need for national defense and protection of the valued natural resources Alaska has to offer. With that, a conservative approach has been taken in the analyses in this EIS. The Air Force cannot return to 1990 levels of flying as the types of aircraft have changed as well as the type of training that is required. In cooperation with federal and state agency representatives, adjustments have been made in operational times and locations that reduce the perceived and actual impacts of aircraft operations. Monitor to determine if aircraft overflights are creating any observable or measurable impacts on the wildlife and the environment will also continue. The Air Force is considering measures that will reduce potential impact by, first, restricting the time when MFEs are scheduled, and, second, establishing seasonal Flight Avoidance Areas over defined critical habitat of specific "at risk" wildlife populations (i.e., species and populations considered susceptible to significant adverse impacts or Level III impacts) as well as sensitive recreation areas. The Air Force is also considering shifting the boundaries of some of the proposed MOAs to totally avoid overflight of sensitive resources. These measures should satisfy many concerns.

MIT-002 COMMENT: Allocate one-half percent of the cost of conducting Military Flying Exercises (MFEs) and routine training in Alaska for monitoring and assessing the effects of overflights.

RESPONSE: The Air Force is developing an interagency program with the regional DOI agencies to pursue noise monitoring and other research activities.

MIT-003 COMMENT: Trim STONY A and NAKNEK 2 MOAs so they do not overlay Lake Clark National Park and Preserve. Eliminate the northern half of SUSITNA MOA that overlays Denali National Park and Preserve. Trim the southeastern corner of FOX MOA so it does not overlay portions of the Gulkana and Delta National Wild and Scenic Rivers (NWSRs) and associated campgrounds, and high density swan nesting habitat.

RESPONSE: The Air Force is considering mitigation that shifts the STONY A and NAKNEK 2 MOA boundaries west of the Lake Clark National Park and Preserve by a minimum of 2 NM. As the SUSITNA MOA is one of the smaller operating areas in Alaska, reducing its size would severely degrade the training utility of the airspace. However, under the Preferred Alternative (Alternative A—Modified), supersonic activity would only occur south of Denali National Park and Preserve. In addition, this MOA already has a floor of 5,000 feet AGL and the proposed use is less than currently occurs. The Air Force is also considering mitigation that shifts the FOX MOA eastern boundary approximately west to avoid almost all of the Gulkana and Delta NWSR system and associated campgrounds and trumpeter swan nesting areas.

MIT-004 COMMENT: Do not permit routine training in YUKON 4 and YUKON 5 MOAs.

RESPONSE: The Air Force is considering mitigation to restrict routine flying operations in YUKON 5 MOA, primarily in response to concerns regarding subsistence activities. However, despite the low number of routine flying operations planned for the YUKON 4 MOA, its value for day-to-day training makes it essential to meeting training needs. Subsequently, the Air Force is not considering eliminating routine training operations from this airspace, but is considering extending the existing Flight Avoidance Area (2,000 feet AGL and 2 NM lateral avoidance) for portions of the Charley National Wild River to mid-September for recreation mitigation.

MIT-005 COMMENT: Allow at least two weeks between the end of one MFE and the beginning of another.

RESPONSE: The Air Force is considering mitigation that would require a 2-week break between MFEs. This would include a 2-week period around the 4th of July, a period of high recreation activity. In fact, the Air Force already abides by this policy.

MIT-006 COMMENT: Conduct no MFEs during the periods April 15 to June 15 (prime lambing, calving and nesting period) and take specific measures to avoid the fall subsistence and sport hunting seasons.

RESPONSE: The Air Force is considering mitigation that would place seasonal altitude restrictions over specified areas where concentrations of "at risk" wildlife populations are located during critical life-cycle phases. This mitigation would apply to MFE and routine training activities, alike. Populations for which Level III Impacts are predicted in the Draft EIS are the initial candidates for such mitigation. Additional species, populations, key life-cycle periods, and specific use areas would be defined, per a Memorandum of Understanding, in direct consultation with the appropriate resource managers. As an additional note, the Air Force is considering mitigation that would preclude scheduling MFEs during September to avoid some fall subsistence and sport hunting activities.

MIT-007 COMMENT: Conduct no more than three MFEs per year. To limit impacts on recreationists and wildlife, conduct no more than two MFEs between June 16 and August 31.

RESPONSE: Air Force training requirements necessitate the capability to exercise up to six times per year. Although in the recent past only three to four MFEs been funded each year, the requirement to train with up to six MFEs per year has not been eliminated. As for limiting the schedule to only two MFEs between June 16 and August 31, the Air Force is already considering mitigation that would place a 2-week break between MFEs and remove September from the MFE schedule. This equates to roughly a 40 percent reduction of the prime training periods when weather is optimal. Further reducing the ability to schedule MFEs during this period would result in lost training opportunities and impact Air Force readiness capability to an unacceptable degree.

MIT-008 COMMENT: Conduct no training—MFE, routine, Military Training routes, or slow speed—within five miles (either side) of selected portions of components of the National Wild and Scenic River System from May 15 to July 15.

RESPONSE: The Air Force is considering seasonal mitigation that would place a 2,000 foot AGL and 2 NM-wide Flight Avoidance Area either side of the Charley and Nowitna National Wild Rivers. The Air Force is also considering mitigating those portions of the Fortymile National Wild, Scenic and Recreational River that are of greatest concern. The Air Force has considered and rejected similar mitigation for the Birch Creek National Wild River because it is located in the central core area of the YUKON MOA complex and the suggested mitigation would eliminate training flexibility and usefulness of the airspace to meet Air Force training needs.

MIT-009 COMMENT: When snow is not on the ground, do not release flares if the relative humidity is less than 40 percent or if the National Fire Preparedness Level is at level IV or V.

RESPONSE: Careful review of the current Air Force flare use policy indicates that current procedures are more conservative than the proposed restrictions and, therefore, more likely to reduce the potential for flare-generated wildland fire. The Air Force's current greater than ten-fold altitude increase in safety margin for flare burnout is a proactive approach to preventing flare-generated fires.

MIT-010 COMMENT: Do not release chaff over conservation system units.

RESPONSE: Numerous studies of the potential impacts of chaff lead to the following conclusions: 1) Chaff is distributed widely—for example, a chaff bundle released at 500 feet AGL is estimated to result in deposition of approximately one dipole per square foot; and 2) the materials in chaff are considered nontoxic. Chaff is a critical component of the Air Force training program and essential to fulfilling overall readiness requirements. However, the Air Force is pursuing development of alternative (e.g., biodegradable) types of chaff to eliminate public concerns over the potential effects of regular chaff (see section 4.4.2.1.1 of the EIS).

MIT-011 COMMENT: Restrict supersonic operations to altitude levels consistent with such practices over comparable DOI lands in the other forty-nine states. It is our understanding that supersonic flight is not allowed below 10,000 feet AGL over DOI lands located elsewhere.

RESPONSE: The Air Force is considering mitigation to raise the minimum altitude for supersonic operations to 5,000 feet AGL or 12,000 feet MSL, whichever is higher. This would apply to all MOAs proposed for supersonic operations except STONY A and B MOAs. Should this mitigation be enacted, much of the land over which supersonic activity could occur would experience supersonic overflights at altitudes above 7,000 or 8,000 feet AGL. For example, roughly 98 percent of all supersonic activity in YUKON 3 MOA would occur above 7,000 feet AGL, and 87 percent above 8,000 feet AGL. In YUKON 4 MOA, about 98 percent of supersonic flights would be above 9,000 feet AGL, and 80 percent would be above 10,000 feet AGL.

MIT-012 COMMENT: Do not exceed approximate 1990 levels of routine flight training, with particular regard to combat aircraft. Do not request higher levels of flight training until five years of the proposed monitoring program have been completed.

RESPONSE: The EIS takes into account the cumulative level of activities for routine, MFE, and MTR flying activities where they overlap, and analyzes the cumulative noise impacts where they occur. Returning to the 1990 levels of flight training is not possible due to changed aircraft and increased mission training requirements. However, the Air Force is committed to monitoring and studying specific areas of high aircraft noise within the Region of Influence, subject to availability of funds. Should the results of these efforts indicate any ongoing impact, the Air Force would naturally adjust its flying operations accordingly to balance any impact with Air Force training needs.

MIT-013 COMMENT: Insert into the Final EIS a "sunsetting" provision. This would state that after a specified number of years—we suggest 15 years—the Air Force would be able to retain the MOAs only after completing an amendment to the EIS. This amendment will reexamine whether the MOAs and the associated mitigation measures are still appropriate.

RESPONSE: It is Air Force policy to revisit supersonic operations authorizations every 3 years. In addition, as required by law, the findings of the Final EIS would be reevaluated should there be any significant change in the affected environment or any proposed change in Air Force activities. With these safeguards in place, it is not necessary to include a Sunset provision in the Final EIS.

MIT-014 COMMENT: Raise the floor of the Galena MOA to 3,000 feet AGL to enhance the protection of wildlife and recreation values associated with the Nowitna National Wildlife Refuge and Nowitna National Wild River.

RESPONSE: The Air Force is considering seasonal (May 15 to July 15) mitigation consisting of a 2,000 foot AGL and 2 NM Flight Avoidance Area either side of higher use portions of the Nowitna National Wild River.

MIT-015 COMMENT: Recommended mitigation (page 2-66 of the Draft EIS) for Level III impacts on swans are not adequate. A floor of 5,000 feet AGL is needed to significantly reduce noise levels and associated impacts.

RESPONSE: The Air Force is considering mitigation that would minimize noise effects on trumpeter swans by raising the floor of FOX MOA and the western portion of TANANA MOA (Alternative B only) to 5,000 feet AGL year-round.

MIT-016 COMMENT: It should be possible to make provisions in the MOA restructuring proposal for continuance of the existing IFR route along V-444. The existing V-444 airway corridor connecting Fairbanks, Delta Junction, Northway and extending onto Whitehorse must remain intact and protected to ensure IFR routing between Fairbanks and points east.

RESPONSE: The Air Force concurs with the objective of keeping V-444 free for air traffic. Under the Air Force's Preferred Alternative, the existing V-444 route and minimum enroute altitudes (MEAs) all cross over the top of the BUFFALO and BIRCH MOAs with 1,000 feet of altitude separation between the top of the MOAs and the MEAs for the airway.

MIT-017 COMMENT: The FAA and the Air Force should develop an airway route from Fairbanks direct to Eagle. This route should be established as a no fly corridor for military aircraft, except those using the route.

RESPONSE: Establishing a direct airway between Fairbanks and Eagle/Dawson would degrade the training utility of the YUKON 1 and YUKON 3 MOAs. The Air Force proposes to enhance the capabilities of the SUAIS (see response to Comment OTH-012) to inform civilian users of Air Force operations in the MOAs in a near-contemporaneous manner. If an IFR clearance under Instrument Meteorological Conditions (IMC) is requested, in most cases it would be granted by the FAA. Only on very rare conditions would operations in the YUKON 1 or YUKON 3 MOAs be occurring under IMC conditions and under radar control such as could be provided by AWACS. FAA procedures allow for either VFR or IFR clearances through uncontrolled airspace regardless of other traffic; however, the policy of the Anchorage Air Route Traffic Control Center (ARTCC) is to not issue such clearances in uncontrolled airspace.

MIT-018 COMMENT: The prospect of future GPS approaches to other airports in the area is a significant development. The impact of the MOAs on future IFR operations should be carefully considered to avoid precluding access to these areas.

RESPONSE: As the procedures for GPS approaches are developed and published for public-use airports throughout the state, the Air Force will work with the FAA to expand the areas protected around these public-use airports (lying within the SUA) to whatever the existing FAA criteria dictate. Such needed exclusion areas could be implemented with very short notice, even before revisions to FAA Handbook 7400.8 can be incorporated.

MIT-019 COMMENT: A low-altitude VFR corridor should be established along the Richardson and Alaska Highways to allow safe VFR transit of civilian aircraft, especially during times of low cloud cover and reduced visibility. The corridor should extend from Fairbanks to Delta and Northway and from Delta through the Alaska Range to the south. The corridor should be five miles wide with the Richardson Highway as its north and east boundary and should extend from the surface to 2,000 feet above ground. Military aircraft should not be permitted in this corridor.

RESPONSE: Although the Air Force concurs with the requirement to enhance VFR transit along the Alaska and Richardson Highways, corridors of this size are problematic for potential Air Force operations. In the proposed BIRCH MOA, a corridor only as high as 1,500 feet AGL would protrude through the top of the MOA at approximately the middle of the MOA and 5 miles north of the Richardson Highway. This would create areas in the MOA where the Air Force could not fly over the top of the civil flight corridor without exiting the MOA at the ceiling. In the case of BIRCH and FALCON MOAs, the Air Force proposes raising the MOA floors from 100 feet AGL to 500 feet AGL. This would allow unlimited flight activity (not just along a highway corridor) beneath the MOAs. In the BUFFALO MOA (with its 300 foot AGL floor), the Air Force proposes two civil flight corridors. The first would extend from Delta Junction southeast along the Alaska Highway, from the surface to 500 feet AGL, 2 NM either side of the highway. Above that corridor, with the same lateral

boundaries, the Air Force proposes a second civil flight corridor extending from 4,000 feet MSL to 6,000 feet MSL. This corridor would permit uninhibited access through the center of BUFFALO MOA with hemispheric flight at 4,500 feet MSL and 5,500 feet MSL, and still have 500 feet of buffer between Air Force operations either above or below the corridor. South of Delta Junction, along the Richardson Highway, the Air Force proposes a smaller corridor than that described above to the southeast. The Air Force proposes establishing a civil flight corridor $\frac{1}{2}$ NM either side of the Richardson Highway, from the surface to 500 feet AGL, and a similar corridor between 4,000 and 6,000 feet MSL for higher altitude travel at VFR hemispheric altitudes of 4,500 and 5,500 feet MSL. Any further expansion of the corridor west is essentially precluded by the R-2202 restricted area.

MIT-020 COMMENT: To protect VFR operations, additional routes from Fairbanks to Central and Circle City along the Steese Highway, from Circle City to Eagle and Dawson, along the Yukon River, and from Northway to Chisana (south) and Chicken, Eagle and Boundary (north) should be established.

RESPONSE: A Flight Avoidance Area already exists from the surface to 2,000 feet AGL along the Steese Highway, encompassing the communities of Central, Circle Hot Springs, and Circle City. Several other flight avenues are available in the vicinity of the Yukon and Charley rivers as the Air Force has established Flight Avoidance Areas over portions of the rivers (2 NM either side of the rivers, up to 2,000 feet AGL). These areas were originally established in consultation with the U.S. Fish and Wildlife Service for the protection of the peregrine falcons nesting along the rivers. As described in the response to Comment MIT-017, establishing other VFR direct routings that bisect the YUKON MOAs would further degrade the training utility of the individual MOAs and the YUKON complex as a whole. For flights into the southeastern portion of YUKON 3 MOA, civil access is enhanced by the division of YUKON 3 under the Preferred Alternative into two low MOAs (YUKON 3A Low and 3B Low), with different floors. YUKON 3B Low would have a floor of 2,000 feet AGL and include the communities of Chicken, Eagle, Eagle Village, and Boundary. North and west of YUKON 3B, the floor of YUKON 3A Low would be 100 feet AGL.

MIT-021 COMMENT: The trans-Alaska oil pipeline should be protected by a low-altitude VFR corridor three miles wide, centered on the pipeline, and extending to 1,500 feet above the surface. Military aircraft should be excluded from this corridor.

RESPONSE: As discussed in the response to Comment MIT-019, the Air Force has also evaluated corridors through MOAs overlying the trans-Alaska oil pipeline. A corridor of up to 2,000 feet AGL would exceed the vertical limits of the BIRCH MOA and essentially close off portions of the MOA. In the lower terrain areas of the MOA, less than 1,500 feet of vertical clearance over the top of the proposed exclusion area would exist. Discussions with commercial helicopter operators have suggested that they routinely fly below 500 feet AGL. Raising the floors of the FALCON and BIRCH MOAs provides the space needed to transit the pipeline. In the BUFFALO MOA, where the pipeline parallels the Richardson Highway, most of the route would be within the $\frac{1}{2}$ NM civil corridor proposed along the highway. The only area not covered would be where the pipeline leaves the highway and passes west of Donnelly Dome.

MIT-022 COMMENT: During certain times of the year, general aviation traffic increases across large portions of the Interior. Corridors aren't appropriate due to the dispersed nature of these operations. These times include hunting seasons, fish and game surveys and recreational flying. No MFEs should be scheduled between August 8 and September 30 annually to protect general aviation during hunting season. During this time, the Air Force should restrict all routine flying to no lower than 3,000 feet

above ground level during hunting season. Also, the Air Force should not conduct any MFEs during the time period one week before and one week after the July 4th holiday.

RESPONSE: Under the Preferred Alternative, the Air Force proposes to not conduct MFEs during the month of September, to provide a 2-week minimum break period between MFEs, and to provide a 2-week period around the 4th of July when MFEs would not be conducted.

MIT-023 COMMENT: The Air Force must improve their VHF communications capability throughout the proposed MOAs. This should include Remote Communications Outlets (RCOs), coordinated Range Control capability to provide real time notification of military activity, and ATIS-type messages broadcast on separate frequencies alerting pilots to military traffic. The FAA should also examine its procedures to dispense more detailed information about military traffic to civilian users.

RESPONSE: The Air Force is pursuing improvements to VHF communications equipment, operations, and procedures in an effort to make the dissemination of near real time information as effective as possible. These changes are embodied in improvements being proposed for the SUAIS and are detailed in the response to Comment OTH-012. ATIS is scheduled to be operational in this area by October 1995.

MIT-024 COMMENT: The military should explore the use of AWACS aircraft to provide both enhanced radar coverage and VHF communications during MFEs.

RESPONSE: The Air Force has reviewed the potential for using AWACS to provide civil aviation traffic advisory service via VHF/AM radio frequencies. Several reasons make this suggestion infeasible. Unfortunately, AWACS has only four VHF radios (three in the AM band and one in the FM band), only two of which are available for use by AWACS surveillance and weapons control personnel. The other two are dedicated to use by the flight deck crew or for internal flight/mission crew/Guard 2 coordination. Even if the other two radios were available, a sufficient number of controllers are not routinely carried on the missions to perform these advisory services, nor are they trained to provide such services. In addition, AWACS only participates in about 50 percent of the exercises. This would create an inconsistency for civil aviators who would enter a MOA during an MFE with the expectation of advisory service that may or may not be available.

MIT-025 COMMENT: The Air Force should immediately establish and facilitate an aviation advisory committee to provide coordination and communication between the general aviation and military aviation communities. This committee should meet periodically to assess aviation safety issues and to make recommendations to both the Air Force and the FAA which are intended to improve aviation safety within military airspace.

RESPONSE: The Air Force has formed the Alaska Civil/Military Aviation Advisory Council (ACMAAC). The first biannual meeting of the council was hosted by the Air Force on April 21, 1995, at Eielson AFB. This initial meeting established the charter for the group, and the council undertook discussions of contemporary aviation issues facing Alaskans today. The Air Force hopes that this forum will provide the needed interchange of problems and solutions concerning all aviation interests in the state.

MIT-026 COMMENT: A toll-free number should be made available to civilian pilots so they can obtain up-to-date information about military activity schedules. The phone lines would be direct to the Range Control personnel.

RESPONSE: As part of the enhancements to the SUAIS, the Air Force is pursuing the establishment of a toll-free (800) number to disseminate information on Air Force flying activities and to make available future scheduling information. See the response to Comment OTH-012 for further information.

MIT-027 COMMENT: An additional mitigation measure the Air Force should consider is to balance its desire to expand MOAs with a simultaneous closing of other military lands that are currently off limits to public recreation use.

RESPONSE: 40 CFR 1508.20 lists five generic methods of mitigating significant adverse environmental impacts, one of which is "compensating for the impact by replacing or providing substitute resources or environments" or mitigation by replacement. The use of mitigation by replacement is appropriate where an actual resource would be physically destroyed or altered by a proposal (e.g., building replacement wetlands). Since overflights do not constitute a use or taking of land, mitigation by replacement is not relevant to this proposal.

MIT-028 COMMENT: Clarify which mitigation measures will be included in the Final EIS, address whether these mitigation measures were assumed to be part of the alternatives when assessing environmental impacts, and explain how we can know which of the mitigation measures the Air Force will actually implement.

RESPONSE: Some of the mitigations described in the Draft EIS were carried forward to the Final EIS. Many other mitigation measures came about from suggestions received during the public comment period on the Draft EIS. In Chapter 4 of the Final EIS, the environmental effects of the unmitigated Proposed and Alternative Actions are described. Chapter 4 has been revised to conclude with a section in which potential mitigation measures are described. In its Record of Decision (ROD), the Air Force will identify which mitigation measures will be adopted. The ROD will also include a mitigation implementation and monitoring plan.

MIT-029 COMMENT: Low-altitude VFR flight by military aircraft outside of MOA boundaries also occurs. The multitude of Special Use Airspace (SUA), including MTRs, MOAs, RAs, LATNs, and SRs available to military pilots should preclude VFR activity in general aviation areas. The ADF&G recommends restriction of military flights to IFR activity outside the MOAs as mitigation for the proposed increase in military flight activity in Alaska. This would reduce military aircraft impacts to wildlife outside of designated training areas, reduce potential hazards to ADF&G biologists during aerial surveys, and reduce conflicts with general aviation flights.

RESPONSE: The Air Force cannot completely curtail VFR operations outside the SUA mentioned above. For the most part, however, aircraft do transit via IFR flight plans to these areas, except when the ARTCC cannot provide IFR services or when the flight times are so short and the weather is adequate enough to not warrant an IFR flight plan. This sometimes occurs in the areas around Eielson AFB (during routine training only) when aircraft are proceeding directly to the YUKON MOAs or to the restricted areas immediately after departure.

MIT-030 COMMENT: What is the logic behind the mitigation outlined for wildlife? For subsistence?

RESPONSE: The Draft EIS identified spatial and temporal avoidance measures for numerous species of concern (see section 4.5.3). The spatial avoidance measures were based on noise sensitivity (startle) thresholds, which vary from species to species. Temporal avoidance measures were based on the type, timing, duration, and location of sensitive life-cycle periods, which also vary among species. For the three species for which potential significant adverse impacts were identified, the startle thresholds, minimum overflight altitudes, and key life-cycle phases are:

Trumpeter swans	82-98 dB	2,000 feet AGL during breeding and staging
Caribou	85 dB	3,000 feet AGL during calving and post-calving
Dall sheep	75 dB	5,000 feet AGL during lambing, spring mineral lick use, and rutting (winter habitat)

The general approach to mitigation is to avoid overflights of areas where species of interest concentrate during key life-cycle phases. The mitigations outlined in the Final EIS (see section 4.12) focus primarily on potentially significant adverse impacts, which have been identified for "at risk" populations. In addition, three Interagency Coordination Teams comprised of representatives from the DOI (NPS, USFWS, and BLM), the State of Alaska (ADF&G and ADNRR), and the Air Force have been established. One of the purposes of the Resource Protection/Mitigation Team is to facilitate information exchange with the goal of reducing potential impacts of Air Force operations on wildlife. In the future, DOI staff and ADF&G biologists will continue to help the Air Force identify critical species, populations, life-cycle phases, and locations so that timely, accurate mitigation measures can be enacted when needed. A second team, the Research and Monitoring Team, has also been set up and will concentrate on collecting wildlife data. This data will be used to make decisions regarding the efficacy of mitigation measures and the need for additional mitigation for newly identified "at risk" populations.

Impacts to specified "at risk" populations will be mitigated during critical life-cycle periods in areas mutually agreed to by the Air Force and the wildlife management agency having jurisdiction over the species in question. The description of the area, the length of the mitigation period, and the parameters of the mitigation are to be established by consultation with management agencies. In general, wildlife habitat areas are to be avoided by 2,000 feet AGL and 2 NM. The smallest practicable area will be listed as the location of the mitigation.

The Draft EIS examined the potential for implementation of any of the alternatives to significantly restrict subsistence use or result in a substantial reduction in the opportunity to continue subsistence uses of renewable resources (see sections 4.7.1 through 4.7.3). Such restrictions are generally caused by: 1) reductions in abundance of, or major redistribution of, resources; 2) substantial interference with access (to resources); or 3) major increases in the use of those resources by non-rural residents. The Proposed and Alternative Actions would not restrict access by air or ground transportation to subsistence resources. Nor would any increased use of resources by non-rural residents be likely to occur due to implementation of any of the alternatives. Given this, measures to mitigate potential impacts to subsistence were based primarily on the analysis of potential impacts of aircraft overflights on wildlife and mitigation measures identified to reduce these impacts. The assumption was that impacts to wildlife resources could increase the level of effort required to harvest these resources. Therefore, mitigation to reduce the probability of individual behavioral responses or population level effects would also minimize the likelihood of adverse effects to subsistence use.

MIT-031 COMMENT: Replace the AGL values with geographic MSL values so that there is no confusion on what the "floor" is for military activity in a given area.

RESPONSE: Descriptions of the MOAs in terms of MSL altitudes versus AGL altitudes is not practical for the airspaces being assessed. The MOAs being considered have large terrain variations, and establishing an MSL floor providing adequate terrain clearance would render the airspace unusable for low-altitude flight. Low-altitude flight operations involve terrain following and terrain masking; establishing MSL floors in MOAs would require an adequate safety margin above the highest terrain in or near any piece of airspace and render it equivalent to flying over open water (no terrain).

MIT-032 COMMENT: The following general mitigations for recreation, subsistence, and general land use are suggested.

- Adopt MSL floors over conservation areas (say 4,000 MSL);
- Avoid recreation concentrations during their busy times (hunting seasons, fish harvests, subsistence activities);
- Adopt MSL floors over town/villages (say 10,000 MSL) and no supersonic flight below 30,000 MSL;
- Keep supersonic flights as few and as high as possible in those areas where it is not critical to the training mission.

RESPONSE: Higher altitude floors for certain operations over towns/villages and conservation/recreation areas have been adopted by the Air Force in the past, and some additional mitigations are proposed under the Preferred Alternative identified by the Air Force. See response to Comment MIT-028 for more information on the expanded mitigation measures being considered by the Air Force.

MIT-033 COMMENT: The Air Force should maintain an "open door" policy with the aviation community. The toll-free number to receive input from civilians is a good step for civilian involvement and should be made permanent with documented input, serious consideration of suggestions and timely responses. Ensure that there is a written response indicating the outcome/action taken as a result of complaints voiced by the public through the toll-free number.

RESPONSE: For nearly a year the Air Force has had in place a toll-free number (1-800-538-6647) to receive complaints about Air Force flying operations. This number is manned during normal Air Force duty hours, and a recorder is available during non-duty hours. Complaints received on Air Force flight operations are usually handled by the Public Relations Office at each wing. They serve as the focal point for routing complaints through the proper operational channels so that they can be investigated and responses prepared. It is Air Force policy to respond either verbally or in writing to all complaints logged on this 800 service or received through other channels. In cases where a caller fails to identify himself, the complaint can be investigated, but a response is not possible.

MIT-034 COMMENT: Several of the MOAs proposed in the Draft EIS have received significant public concern regarding Air Force flight in proximity to civil aviation operating under VFR conditions. We suggest that these areas receive attention to provide as much latitude for the public to operate.

RESPONSE: The Air Force recognizes the concerns voiced by the civil aviation community and has attempted to provide access for civil aircraft and de-confliction from proposed military operations, where these mitigations did not appreciably degrade use of the airspace for training purposes. These mitigations are defined in section 4.12 of the Final EIS.

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2.11 Noise

NOI-001 COMMENT: When discussing noise effects, averages are used, but the noise is experienced at the time and not as an average. Joint and combined training is discussed throughout the EIS but data is not provided for foreign aircraft. The noise analyses are only provided for single planes. The Draft EIS makes clear that sorties will be flown in formation or in groups with multiple or dozens of aircraft. Similarly, noise level calculations are useless when averaged over a year, or any period which is similarly designed to mask the impact of the "dose" received at a specific time, from a specific event. The average daily aircraft activity numbers, based on a 240-day average, mask peaks for certain days, and make it impossible to tell what the full brunt of noise impacts from low and higher elevation flights will be. The DNL measurement seems to be better suited to areas around airports, although it still does not adequately reflect all kinds of impacts there. The Draft EIS presents the reader with a new unofficial MOAMAP noise model. Since the model is not officially approved we question any authority to utilize these new calculations with independent peer review. The Draft EIS does not present noise calculations as set forth in the Air Force's Generic Environmental Impact Statement (GEIS) for Air Force Low Altitude Flying Operations, Preliminary Draft, January 1990, Volume 1.

RESPONSE: The subsonic noise analysis was performed in accordance with widely accepted, standard professional methodologies. The MOAMAP model for computing the Onset Rate Adjusted Monthly Day-Night Average A-Weighted Sound Level (L_{dnmr}) from military flight operations in a MOA represents the best available technology at the time the Draft EIS was prepared. The MOAMAP model uses Air Force noise files and uses the same algorithms as the ROUTEMAP model to estimate L_{dnmr} levels in a particular operations area. The ROUTEMAP program would not be sufficient for predicting these noise levels, as it does not have the capability to model the random nature of operations as would occur in a MOA and over a much larger area as compared to a low-altitude military training route. The MOAMAP differs from earlier attempts at modeling L_{dnmr} levels in a MOA in that previous models basically treated flights as being uniformly distributed throughout a MOA. MOAMAP provides the opportunity to define areas in the MOAs where operations are likely to occur, and then a stochastic method is used to determine the probability of any particular area being overflown. Once the probability of overflight is determined, the actual noise calculation is made using the ROUTEMAP algorithms. Each noise event in a MOA is then summed together to form L_{dnmr} contours in each MOA. MOAMAP accounts for all aircraft sorties predicted to use a particular MOA during monthly periods of routine training and when MFE training is ongoing. The results presented in the Draft EIS represent the highest estimated noise levels anywhere in a MOA.

In the case of two aircraft flying very close together there is an effective doubling of the sound energy at that point. However, this does not mean that one can simply add two sound levels together to get the associated noise level of this event. Because decibels are logarithmic, they are not arithmetically additive. If two similar sound sources produce the same amount of sound, (for example 100 dB each), the total sound level will be 103 dB, not 200 dB. The greater the difference between two sound levels, the less impact the smaller number will have on the larger (and subsequently the total sound level). As an example, if 70 dB and 50 dB are logarithmically added, the result is a less than 0.05 dB increase, to 70.04 dB. Likewise, when summing multiple events of the same magnitude, the heaviest penalty is paid for the first two or three events, with each successive event having a lesser impact. For example, if five 100 dB events are added, the result is approximately 107 dB. More information on the properties of sound can be found in Appendix F of the FEIS.

The Air Force's Generic Environmental Impact Statement (GEIS) is still in a preliminary draft phase. Its methodologies and assessments have not been fully validated and have not, therefore, been adopted as the Air Force's standard for assessing impacts of noise generated by low-altitude aircraft operations.

The Air Force considers long-term annoyance produced by exposure to aircraft noise the most important effect of low-altitude, subsonic overflights of residential populations. Methods for predicting long-term annoyance for assessing the effects of aircraft noise over the range of exposure conditions near military airfields are available. Methods for predicting short-term annoyance due to single overflights; long-term annoyance due to sonic booms, such as might be heard in a MOA; and long-term annoyance due to sporadic, low-altitude, high-speed overflights are less developed. The best available guidelines for predicting noise effects are those of the Federal Interagency Committee on Noise (FICON 1992) and the American National Standards Institute's *Sound Level Descriptors for Determination of Compatible Land Use* (ANSI 1990b). Acceptable and unacceptable noise levels are based in large part on the expected effects of noise exposure on communities. ANSI suggests that land uses in "extensive natural wildlife and recreational areas" are likely to be considered compatible with a Day-Night Average A-Weighted Sound Level (DNL) of 60 dB or less. There is no clear evidence to suggest that DNL and the methodology for predicting the percentage of a population likely to be highly annoyed by noise exposure is inappropriate, nor is there a more suitable methodology available.

The analysis of noise levels in the MOAs and around the airfields included foreign aircraft such as the Royal Air Force (RAF) Tornado. Appendix E of the EIS has been revised to include the maximum sound levels (L_{max}) and sound exposure levels (SEL) associated with the Tornado. The sound levels of the various aircraft that may use the MOAs (L_{max} and SEL) have also been added to section 4.3.1.1 (Tables 4-3 and 4-4).

NOI-002 COMMENT: There is a statement in the Executive Summary that says a sonic boom is like thunder. My personal opinion is that Alaska is too beautiful to be exposed to 19,500 supersonic flights. This proposed activity is precedent setting. The proposed areas are too large, the flight levels too low, and the number of sonic booms is too many.

RESPONSE: Two noise metrics are used to describe the potential impacts of supersonic operations in a MOA. The C-Weighted Day-Night Average Sound Level (symbolized L_{cdn}) is used to assess the temporal nature of sound events by averaging the total energy of multiple events over some prescribed period of time (1 month in the EIS). L_{cdn} values for supersonic operations are computed using the White Sands Missile Range (WSMR) model developed by Plotkin et al. (1989). This model was developed using data gathered over a 6-month period of air-to-air training activity at the WSMR. Some of the key elements of the test are:

- 4,600 ACM sorties were flown, 72 percent of which were F-15s.
- Measured data showed there were approximately 0.11 sonic booms recorded per sortie somewhere on the range.
- Near the middle of the training airspace, the average sonic boom had a peak overpressure of slightly under 1 pound per square foot (psf).
- Approximately 0.5 sonic booms per day occurred in the center of the airspace and decreased exponentially as one got farther from the center.
- 99 percent of all sonic booms were below 4 psf, and none exceeded 7 psf.

From these measurements, Plotkin et al. (1989) developed what is known as the WSMR model for predicting potential sonic boom impacts from air combat operations. It replaces earlier work done at Navy Oceana, which resulted in the "Oceana Model." That model was based on a very limited number of F-15 sorties (21), combined with a simplified carpet boom model. Predictions from the Oceana Model appeared to be at least 10 dB too high when compared to the measured data gathered at WSMR. The WSMR methodology has been adopted to predict the maximum L_{cdn} expected at the center of the supersonic operating areas (i.e., the center of the ellipses in Figures 4-24, 4-25, 4-26, 4-27, and 4-28 of section 4.3), the expected number of booms per day at the center of the supersonic operating areas, and the range of peak overpressures expected.

NOI-003 COMMENT: Please expand on the human health effects of subsonic noise and sonic booms. People cannot tolerate sonic booms. Long-term effects of sonic booms are undocumented as scientists feel it is unethical to expose unwilling people to the types of impacts proposed that Alaskans receive. Studies do indicate that people will not tolerate long-term exposure to sonic booms generated by air combat training below 30,000 feet. The upper limit of tolerance for people is 2 PSF.

RESPONSE: While no absolute standards define the threshold of "significant adverse impact" for the noise environment, there are common precepts, based on empirical studies, regarding what constitutes adverse acoustical impacts in certain settings. The impact of a noise environment on people regularly experiencing that environment stems from the degree to which the noise interferes with activities such as speech, sleep, and listening to radio and television, and the degree to which human health may be impaired (e.g., hearing loss). The total impact of a particular noise environment is a function of the sound level and the size of the population experiencing it. A DNL < 55 dB in a residential area will have negligible impact on public health and welfare. Adverse effects remain fairly low in the DNL 55 to 64 dB range and increase rapidly above DNL 65 dB. Noise can have both physiological and psychological impacts. Long-term, continuous exposure (e.g., 40 years) to DNL or L_{dn} 70 dB or greater, minus a 5 dB margin of safety, could induce hearing damage. This would be typical in an industrial setting where noise levels are continuous throughout the day. Average noise levels due to aircraft operations do not fit this profile as they are more transient in nature. The Proposed and Alternative Actions would not result in average noise levels even approaching those that might cause physiological damage (e.g., hearing loss). The real impact from the transient nature of aircraft-generated noise is psychological and is characterized as annoyance. The degree of change between existing conditions and what the noise environment would be under the Proposed or Alternative Actions determines the severity of potential impact.

There is no conclusive evidence that exposure to a sonic boom in the range of peak overpressures expected from air combat training activities has any adverse physiological effect on people. Sonic booms may be an irritant to outdoor recreationists, particularly those engaged in hunting, camping, and hiking, but the degree of personal irritation is difficult to predict. The attention given to a sonic boom immediately after its occurrence (e.g., conversation and comments about it or disruption of a group activity such as a classroom or a clinical activity) are actually extended interruptions either with or without a startle effect. Sonic booms in the 2 to 3 psf range are most common and are similar to noises such as metal-beating, detonating toy caps and firecrackers, and firing handguns. While these impact noises may irritate, startle, or awaken people, a high degree of behavioral habituation normally occurs when exposure is repeated.

One of the most comprehensive studies on sonic boom exposure of a large community was conducted over a 6-month period in Oklahoma City in 1964. The community was exposed to 8 sonic booms per day over the 6-month period at a median peak overpressure of 1.2 psf. Using the results of this study, the U.S. Environmental Protection Agency (EPA) concluded that at 8 sonic booms per day the median peak overpressure must be well below 1 psf if no annoyance is to be reported (EPA 1974). A more difficult problem noted by EPA was how to interpret the effects on public health and welfare of more frequent sonic booms. The EPA ultimately determined that little or no annoyance would occur with one sonic boom per day below the level of 0.75 psf. Above that peak overpressure, some level of annoyance could occur.

Startle response was investigated by exposing groups of volunteers to 5 to 12 booms per day ranging from 1.2 to 12.8 psf. The results showed that a startle reaction could be measured by an increase in gross muscular movements and a slight increase in heartbeat frequency (about 2 beats per minute). Changes were momentary and disappeared within a few seconds. When test subjects were exposed to the noise of a pistol shot, the heartbeat frequency increased approximately 9 beats per minute.

According to the EPA, a number of factors must be considered in predicting the auditory effect of impulse noise on people: Duration and rise time of the event, the number of and time interval between events, the audiometric frequency, and the peak sound pressure level. Other considerations include an individual's susceptibility to inner

ear damage, orientation of the ear with respect to the noise, and additive conditions of other continuous noises. The energy of a sonic boom is primarily in the frequency range of 25 to 100 hertz (considerably below that of gunfire and most industrial noise).

Future research may provide a better understanding of the relationship between noise and physiological ill-health; however, in the interim, decisions must be based on data supported by the scientific community. The Air Force concludes that, except for potential annoyance or startle, no other long-term effects associated with sonic boom exposure are likely.

NOI-004 COMMENT: What is the risk of supersonic operations triggering avalanches within the Mount McKinley area? Can measures be taken to minimize their occurrence?

RESPONSE: Avalanche potential depends on numerous factors, and an avalanche may or may not occur in an avalanche-prone location with or without a sonic boom (see section 3.1). With regard to avalanche potential in the Mount McKinley area in particular, the Proposed and Alternative Actions represent a substantial decrease in Air Force activity in the SUSITNA MOA, which overlies a portion of Denali National Park and Preserve (although not the Mount McKinley massif itself). The Air Force is also considering limiting supersonic operations in the SUSITNA MOA to Functional Check Flights (FCFs) only, and only along an east-west line in the southern portions of the MOA, to avoid Denali National Park and Preserve. These procedures should minimize any potential for an avalanche to be caused by a sonic boom in the SUSITNA MOA.

NOI-005 COMMENT: The analysis of potential sleep disturbance neglects the fact that people camping in tents or otherwise exposed to aircraft operations will not be inside buildings.

RESPONSE: The analysis of potential sleep disturbance was performed around Eielson and Elmendorf AFBs to account for late-evening MFE sorties that could arrive after 10:00 p.m. The Air Force does not intend to routinely conduct operations in the MOAs after 10:00 p.m.. Therefore, no sleep disturbance analysis was performed for the MOAs. If someone is exposed to a low-altitude overflight without any attenuation due to a surrounding structure, it is quite likely that the sound level would be high enough to cause sleep disturbance.

2.12 Other Comments

OTH-001 COMMENT: Property damage from chronic exposure to sonic booms remains an unaccounted for cost associated with supersonic training. Procedures through the Federal Tort Act are arduous and difficult. And, despite the adverse effects of sonic booms on human health, no medical claim for damages has yet been honored. Will the Air Force honor tort claims for property damage as well as impacts to human health? If the proposed activities are approved, what is the expected rise in complaints?

The noise generated even by present daily activities is barely tolerable and has resulted in property damage and numerous complaints to the Air Force.

Once the Air Force gets permanent MOA status, there is little incentive to pay much attention to complaints.

Flights below 1,500 feet above the terrain are especially risky in fast planes; in case of accident, who is liable?

Who would be responsible for any property damage, human injury, or potential deaths from an accident involving military aircraft?

RESPONSE: A new appendix (Appendix O) has been added to the Final EIS to document Air Force noise complaint and damage claim history and procedures in Alaska. Noise complaints are handled by the Public Affairs offices at Eielson and Elmendorf AFBs. At Eielson AFB, the 354 FW Public Affairs staff can be reached at (907) 377-2116; at Elmendorf AFB, the 3 WG Public Affairs staff can be contacted at (907) 552-8151. Inquiries or reports about military aircraft operations can also be phoned in to the 11th Air Force's toll-free information hotline at (800) 538-6647. The number of noise complaints increases somewhat during MFEs or other types of exercises and in the summer when people tend to have their windows open and spend more time outside.

The more complete information a caller is able to provide, the better equipped Public Affairs is to determine which unit or aircraft may have been the source of the incident, and thus ensure a satisfactory response or resolution. At Eielson AFB, once the complaint has been recorded, it is given a sequential reference number and logged in Public Affairs' noise complaint file book. A copy of the complaint is hand-carried to the 354th Operations Group Current Operations office for research. A copy is also forwarded to Cope Thunder Operations if a Cope Thunder exercise is in progress. The 354th Operations Group Current Operations office checks their schedule to determine if aircraft stationed at Eielson AFB and/or aircraft flying out of Eielson AFB have been in the area of concern during the time period of the event. If an aircraft flying out of Eielson AFB is determined to have been in the area, the Current Operations office requests a review of the Heads Up Display (HUD) video tape from the aircraft. The HUD tape is reviewed by the appropriate fighter squadron commander. Results of this review are forwarded to the Current Operations office, which sends a written response to the Public Affairs office. If a HUD tape is not available or an aircraft does not have HUD capability, the pilot is interviewed by the appropriate fighter squadron commander. Once again, the results of the interview are forwarded to the Current Operations office, which provides a written report to the Public Affairs office. If the review or interview determine that airspace policies have been violated, appropriate actions are taken against the pilot. If the event cannot be attributed to Eielson AFB aircraft, the Public Affairs office checks with the following agencies to determine if one of their aircraft could have caused the complaint: Elmendorf AFB, 168th Air Refueling Group, Kulis Air National Guard, Fort Wainwright, and U.S. Bureau of Land Management. Once the Public Affairs office has received a response, the caller is notified of the findings of the investigation either by a phone call or letter. As a reference tool, first-time callers are also sent an *Aircraft Identification Guide*. The outcome of the

complaint is recorded on the complaint form and filed for future reference. Equivalent procedures for handling noise complaints are followed at Elmendorf AFB.

In an effort to reduce repeat events and complaints, Eielson AFB formed a Noise Complaint Review Panel (NCRP) in 1993. The NCRP is chaired by the 354th Fighter Wing vice commander and consists of representatives from the following base organizations: 354th Operations Group, Current Operations, 18th Fighter Squadron, 355th Fighter Squadron, Cope Thunder Operations, and Public Affairs. The purpose of the NCRP is to review complaints received at Eielson AFB and find ways to improve community feedback. The panel studies the affected areas for current flight restrictions and determines what actions can be taken to help eliminate or, at least, minimize the negative effects of flying on the civilian populace. One recent example of the NCRP's efforts is the increase in the minimum flying altitude over the Lower Salcha River from 1,500 feet AGL to 8,000 feet AGL.

Legal culpability and associated liability are addressed through the legal system on a case by case basis. The outcome of any particular case is entirely dependent on the specific factors of the situation or incident. It is inappropriate to attempt to predetermine potential liability for alleged damages from sonic booms. Air Force records for damage claims in Alaska show that, since 1988, five claims for damages have been made for military aircraft operations in various regions of the state. Of these five claims, three were paid and two denied. One claim from the Stony River area is now pending, and will be assessed when it is filed. No claims have been filed alleging adverse health effects.

OTH-002 COMMENT: Explain the expected hours of operation in the proposed MOA structure. The Draft EIS states that flying would..."normally occur, but not be limited to, Monday through Friday, 8:00 am to 6:00 pm." This means the Air Force could fly anytime they so choose.

RESPONSE: MOA hours of operation are based on their locations relative to Eielson and Elmendorf AFBs and their primary uses. Under the Preferred Alternative, the STONY and FOX MOAs would form the core areas of Elmendorf-based air-to-air training operations, while YUKON 1, 2 and 6 MOAs, along with BIRCH, BUFFALO, and EIELSON MOAs, would be the primary air-to-ground training areas for Eielson- and Elmendorf-based aircraft. These MOAs would be open for the longest periods, even though military aircraft would not be in the MOAs continuously. Actual aircraft operations in the MOAs would vary on a daily or weekly basis depending on scheduled training requirements, aircraft maintenance status, and weather factors.

The minimum core hours of availability for a MOA are determined by the minimum daylight hours during the winter months. More centrally located MOAs or those that provide better capabilities have expanded hours of operation above the core hours (e.g., YUKON 1 and 2, STONY A and B). 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 except in extreme circumstances.

OTH-003 COMMENT: We are disturbed that the second training and feedback system, planned for the Eielson AFB area, is in the construction phase now. "The Yukon Measurement and Debriefing System (Yukon MDS) is expected to be complete in June 1995." This shows evidence of piecemealing. What MOAs are these systems dependent upon? If YUKON 3-5 MOAs were cancelled, would the system still be effective, efficient, and basically located in the right place?

The Draft EIS states on page ES-2 that MFE airspace must also provide access to air-to-ground weapons ranges and use of ground-based threat radar and weapon system simulators. Again, these

actions are clearly connected with other DoD activities. For example, the Yukon Measurement and Debriefing System is clearly a connected action since this system will be utilized as part and parcel of the proposed activities. These cumulative impacts cannot be ignored. By installing the Yukon Measurement and Debriefing System . . . the Air Force has violated *40 CFR 1506.1(a)(2)*. NEPA requires that federal agencies must not take actions which would limit their choices for selecting reasonable alternatives.

RESPONSE: The Yukon Measurement and Debriefing System (YMDS) covers the YUKON 1 MOA and part of the YUKON 2 MOA, which are existing permanent MOAs. The YMDS provides no coverage in the TMOAs proposed for conversion to permanent MOAs, including the proposed YUKON 3, 4, and 5 MOAs. YMDS was designed for use with the YUKON 1 and 2 MOAs, and its components are located in the correct locations to provide coverage of these two permanent MOAs. If DoD had planned all along to expand the MOAs, YMDS would have been planned to cover more airspace.

OTH-004 COMMENT: Will the F-15 aircraft be operating at the extreme of their operational envelope (as high as 60,000 feet) and if so what are the environmental consequences?

RESPONSE: Even though the F-15 is certified for flight above 50,000 feet MSL, Air Force regulations preclude aircraft flight above this altitude without a full-pressure suit worn by the pilot. There is no current operational or training need for F-15 sorties above 50,000 feet MSL, and none is anticipated in the reasonably foreseeable future.

OTH-005 COMMENT: This comment number is not used in the EIS.

OTH-006 COMMENT: What measures will the DoD take to implement new and proposed regulations under the Federal Facilities Compliance Act, RCRA, and CERCLA?

RESPONSE: This information is not germane to understanding the Proposed or Alternative Actions, nor is it necessary to adequately assess the potential environmental consequences of the alternatives.

OTH-007 COMMENT: What is the status of lands inside the restricted areas? Are adequate safety measures taken with respect to public/private lands? Is the land area with all Restricted Airspace Areas congested, sparsely populated, or uninhabited? Does the SUA allow for aerial access to public and private lands? Does actual activity justify the type of airspace as designated?

RESPONSE: The lands underlying the Restricted Areas (i.e., the air-to-ground weapons ranges) are owned and controlled by the U.S. Army. The Air Force and Army have joint use of the Oklahoma (R-2202) and Stuart Creek (R-2205) ranges; the Air Force has exclusive use of the Blair Lakes (R-2211) range. The lands underlying the Restricted Areas (RAs) are uninhabited, and the current and proposed use is consistent with the purpose for which they were originally withdrawn. On the average, one-fifth of each range is cleaned every year (for unexploded ordnance and other weapons debris) on a rotating basis, ensuring that each range is cleaned entirely every 5 years in accordance with Air Force regulations/instructions. Air Force operations, management, and safety of weapons ranges are dictated by *Air Force Instruction (AFI) 12-212* (formerly *AFR 50-46*) as

supplemented by the major commands (in this case, the Pacific Air Forces [PACAF]) and the using commands (the 11th Air Force). There would be no planned increase in munitions acquired, transported, stored, or expended on the air-to-ground weapons ranges under any of the alternatives (see response to Comment HAZ-001). Other types of Special Use Airspace (SUA) do not exclude the public; rather, SUA confines military high-speed, maneuvering training and operations to specific charted areas. Civil aviation is not precluded from operating in these types of SUA, but must be cognizant of potential military operations that may be occurring. Access to the lands underlying the MOAs is controlled according to the individual ownership (e.g., private, state, federal, Alaska Native, etc.).

OTH-008 COMMENT: The text states that the Noise/Flight Sensitive Area List maintained by the Eleventh Air Force is voluntary and is updated as required. The Final EIS should clarify what is required for an area to be added or deleted from the list.

RESPONSE: As stated in Appendix B (see section B.2), the *Noise/Flight Sensitive Area List* is reviewed annually by 611 AOG/DOOU and approved by 611 AOG/CC to ensure all entries are still valid. Potential additions or deletions to the list that are brought to the attention of 611 AOG/DOOU are considered to determine their mitigating effect and the degree to which they would affect training. Revisions may be initiated by federal, state, or public concerns. Revisions identified outside of the annual review cycle are resolved as they occur.

OTH-009 COMMENT: The Final EIS distribution list should be expanded, as necessary, to include federal subsistence management organizations, such as: The Federal Subsistence Board, Southcentral Regional Council, Bristol Bay Regional Council, Western Interior Regional Council, Eastern Interior Regional Council, Denali National Park Subsistence Resource Commission, and Lake Clark National Park Subsistence Resource Commission.

RESPONSE: These organizations have been added to the Final EIS distribution list.

OTH-010 COMMENT: Although the Draft EIS says, "No ground activities or ground disturbances are proposed," this is contradicted by the earlier statement on p. 1-3 which states "another requirement is that the airspace provides access to air-to-ground weapons ranges and use of ground-based threat radar and weapon system simulators."

RESPONSE: The EIS addresses changes and improvements in airspace, which do not include direct, on-the-ground activities. Although use of the air-to-ground weapons ranges is an intrinsic component of many training activities, the levels of ordnance expenditures contemplated by the Proposed and Alternative Actions were assessed in the *Environmental Assessment of the Upgrade of Target Arrays: Fort Wainwright and Fort Greely, Alaska* (USAF 1992d). No increase in the quantity or change in the type of ordnance used is proposed. Ground-based threat radar and weapon system simulators are either already in place or are relatively unobtrusive portable or mobile transmitters requiring no special site preparation or permanent installation.

OTH-011 COMMENT: The MOAs are needlessly given different numbers in the descriptions of the No Action Alternative and the Proposed Action.

RESPONSE: In all of the alternatives except the No Action Alternative, the airspace designations are the same and reflect the airspace nomenclature that would be used in the airspace proposal process. Tables 2-2 through 2-5 were intended to cross reference between the previously utilized TMOAs in the No Action Alternative and the proposed MOAs in the action alternatives. FAA will further differentiate for MOAs with split floors. For example, the mitigation proposed for YUKON 3 MOA would split the MOA, with a floor of 100 feet AGL to the northwest and a floor of 2,000 feet AGL to the southeast. If approved, FAA would chart this MOA as YUKON 3A Low (100 foot AGL floor) and YUKON 3B Low (2,000 foot AGL floor).

OTH-012 COMMENT: The closure and reduction of operating hours for the Flight Service Stations (FSSs) operated by the FAA make it unlikely that reasonable communication of advisories on MOA operations would occur. The lack of communications is causing a dangerous situation for both military and civil users of the airspace.

Fourteen FSSs in Alaska have been permanently closed. Another fourteen are being operated on a part time or seasonal basis. Remote Communications Outlets (RCO) are supposed to relay communication from users to three Automated FSSs and replace communications from the closed FSSs. In order to reduce workload at the Automated FSSs and the part time FSSs, the FAA is reducing communications opportunities with users by changing RCO frequencies so they are different than the Common Traffic Advisory Frequencies.

The civilian flying activity is continuing to occur without these normal safety communications with the FAA. Many civilian pilots continue to fly without NOTAM and weather information.

RESPONSE: The Air Force is extremely sensitive to the need to make Air Force scheduling and near real time information available to all aviation concerns in the state. The first step in this direction was establishing the Special Use Airspace Information Service (SUAIS) that is designed to provide information advisories in the areas east of Eielson AFB. At the time the Draft EIS was published, the SUAIS was undergoing a 3-month test program. It was established as a permanent system in mid-October 1994. Since its implementation, discussions with individuals using the system, the FAA, and civil aviation groups have yielded a positive reaction to the overall system, with some suggestions to improve it. Use of the system will be an evolutionary process; from the feedback received, the Air Force is implementing further expansion to the SUAIS and establishing other lines of communications for obtaining information on Air Force flying operations. Hours of operation for the SUAIS are being expanded to cover the entire flying periods when military aircraft would be using the MOAs and RAs (the current system only covers the periods when the RAs are active). This expansion will more closely provide real time information on activities within the areas serviced by the SUAIS. The Air Force has requested the release of another VHF frequency from the FAA that will be used to provide continuous recorded information on Air Force planned and scheduled flying activity. This information will be updated periodically during the day as the situation dictates. Planning information for the following day will also be provided and will be similar to the ATIS-type broadcasts available at airports. Further enhancements to the SUAIS under consideration include the placement of additional remote antennas and/or transmitters to expand the VHF coverage associated with SUAIS capabilities. To accommodate aviation interests that are not within radio range of the SUAIS, the Air Force is exploring the establishment of an additional toll-free (800 number) for obtaining information on Air Force flying operations. The Air Force is committed to enhancing aviation safety for all pilots in the state and making information available in an expeditious and concise format. The Air Force will also continue to solicit feedback from users of the systems.

For those aviators not within range of the SUAIS, information on MOA activations is available through the remaining 14 full- or part-time FSSs still operating in the state and, at any time of the day, through the three automated FSSs (available by toll-free phone line).

OTH-013 COMMENT: What impact do the activities of the Air Force and the Army's 6th Infantry Division have on the environment of Alaska? Where are the Alaskan and Canadian Distant Early Warning stations located? Where are the long-range radar sites located? What are the special assignment airlift missions?

RESPONSE: Please refer to section 1.6 for an explanation of the scope of the environmental analysis in this EIS. The 517th Airlift Squadron (517 ALS) provides airborne/airlift training support to the Army's 6th Infantry Division, resupply of remote long-range radar sites, and airlift for Alaskan and Canadian Early Warning stations. Where the 517 ALS activities occur coincident with a MOA (i.e., in the region of influence), they are assessed as part of the cumulative impacts.

OTH-014 COMMENT: We support the presence of the military in Interior Alaska. While the positive economic impact of such a presence is obvious and appreciated, the cultural and quality of life impact is much more subtle, yet nonetheless important. The temporary minor inconvenience of the increased air activity, as proposed in the MOA changes and additions, is a small price to pay for having good neighbors such as our military friends.

I am absolutely opposed to giving the Air Force more "air space" to play in since they evince no real concern for what damage they do to the land below that airspace and the inhabitants who have to live with the short and long term effects of turning more and more of America's wilderness into a playground for the technocrats.

Alaska is a very special place. It's special because there are still vast open spaces, wilderness, sparse human populations, and sizeable wildlife populations. The opportunities provided for solitude, quiet, wildlife viewing, enjoying scenic beauty, and wilderness recreation are what attract residents and visitors alike. Primarily because of the noise, especially from increased low level and supersonic flights, these increasingly scarce resources and uses would be seriously degraded, if not destroyed, if the activities proposed in the Draft EIS were to be implemented. Residents of bush areas, remote cabin owners, wilderness recreationists, tourists, recreational hunters, trappers, fishers, subsistence users, pilots, and others would be adversely affected.

RESPONSE: Over 200 written comments and dozens of verbal remarks were received on the Draft EIS. Included in those comments were over 160 suggested forms of mitigation, ultimately resulting in the development of a new alternative (Alternative A—Modified) that incorporates elements of some of the suggested mitigations (for example, the boundaries of several MOAs have been shifted, floors raised, etc.). The Air Force took all of the comments on the Draft EIS very seriously. The input provided a unique opportunity to benefit from the personal, professional, and organizational opinions of those affected by the Proposed and Alternative Actions. A diverse cross section of opinion regarding a wide range of issues was presented, and each one was analyzed for factual additions to the EIS as well as the valuable perspectives they contained. These comments helped improve the EIS, which was revised to incorporate new information and/or analyses in order to provide the information necessary to make an informed decision regarding the proposed actions and mitigation measures. The Air Force has identified Alternative A—Modified, which is described in sections 2.3.5 and 2.4.6 of the Final EIS, as its Preferred Alternative.

2.13 Purpose and Need

PAN-001 COMMENT: I want to know why the Air Force is so big on permanent status for these MOAs.

There was described the need for F-15 vs. F-16 maneuvers for the sake of combat realism. These two aircraft are fairly similar to one another and are piloted by personnel trained in the same Air Force. Consequently, this argument is flawed. We were told at the hearing that one reason the permanent MOAs are needed is for International Joint Forces Exercises. Since when is it a requirement for the U.S. to provide additional training areas for foreign pilots?

Alaska should not be a national sacrifice area. Additional documentation is needed to try to justify these training activities.

With the end of the Cold War and no real, competent enemies, why do we need to expand training areas? It is time the military gives back to America much of the land previously usurped. The Air Force has not explained the need for this expansion.

Closure of Clark Air Base in the Philippines is given as the reason for expanding military flight training in Alaska. However, in the Philippines the training was primarily over the ocean. The question still remains: With no national needs assessment, is this expansion warranted?

According to the Air Force, "It is an inherent assumption of the EIS process that a proponent has need for the action proposed . . ." [pages ES-4 and 1-7 of the Draft EIS]. This is not an adequate identification of need. We believe this statement is inappropriate and insulting to the reader. It also clarifies the Air Forces' "Decide, Announce and Defend" attitude. We believe that a national needs assessment of all military airspace needs should be conducted as a first step in justifying post-Cold War requirements, and that more specific requirements for the Alaska needs should be in the Final EIS. Why were alternatives outside the state not fully examined? Why, at a time when the Cold War is over and our nation is experiencing a massive scale down in military budgets, is such a huge expansion being pursued? The failure to examine other alternatives clearly points out that this is a case of "empire building" by individuals in the Air Force. These training activities do not stem from any national needs assessment! We note that Alaska is not the only area or state facing massive military airspace or land takings. In the Northeast, North Carolina, Florida, Nevada, New Mexico, Arizona, Idaho, and Colorado also face massive withdrawals for military use. Why when the DoD currently control approximately 50 percent of the airspace over the U.S. is there a need for more? Why is it that joint use of existing areas was not considered an alternative? Why is it that each branch of the DoD must have their own sandbox to train in?

The Draft EIS inadequately demonstrates a need for such a drastic enlargement of military airspace. Furthermore, considering the fact that there is absolutely no basis for low level operations, there is clearly no reason to conduct such training maneuvers!

Why is there a need for low-level flight training when it has been proven (as recently as the Gulf War) that your aircraft are placed at an unreasonably greater risk from enemy attack or accident than from other forms of maneuvers? Isn't there a less expensive area in which to operate than Interior Alaska? As a fiscal conservative, I find it hard to believe that the taxpayer does not underwrite some of the most costly flight training possible when they are conducted up here.

RESPONSE: The Air Force mission is directed by the National Command Authority (i.e., the President and the Secretary of Defense). The directives of the National Command Authority are translated into regulations and instructions issued in ever-increasing detail by successive Department of Defense (DoD) commanders. As part of PACAF, the 11th Air Force mission is first defined in the Commander-in-Chief, United States Pacific Command Instruction S3050.6 (*Pacific Command Strategy*):

"...to maintain the security of and defend the United States against attack throughout the Pacific Theater; to support and advance the national policies and interests of the United States; ...and to prepare plans, conduct operations, and coordinate activities of PACAF forces in consonance with higher authorities [sic] directives."

The Commander, PACAF, then specifically defines the mission of each Numbered Air Force under his command, which includes 11th Air Force, in PACAF regulation 23-5, as follows:

"Ensure assigned combat units are organized, trained and equipped to maintain operational readiness following USAF directives and procedures."

"Be prepared to conduct air combat operations . . ."

"Conduct both unilateral and bilateral planning, training, exercises and operations for defense cooperation with friendly forces, as directed."

"Develop tactics/techniques of aerial warfare, determine requirements for new weapons/weapons systems and improve the use of current weapons systems."

These functions and responsibilities are subsequently translated into specific missions, roles, tasks, and requirements for each type of aircraft and aircrew. From these, the training requirements and proficiency levels to be attained are determined and promulgated in the multi-command 51-series regulations. The specific missions, roles, and tasks in turn determine airspace requirements.

The specific missions assigned to the 11th Air Force are offensive and defensive counter air, air interdiction, close air support and forward air control, suppression of enemy defenses, electronic combat, air refueling, and tactical airlift. This variety of missions, coupled with the number and types of aircraft and their related weapons systems, requires large and varied airspace, approved for both subsonic and supersonic operations. The characteristics of these missions are detailed in Appendix C.

The airspace adjustments are 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 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 end of the Cold War and the subsequent downsizing of U.S. military forces has required a restructuring of the Air Force. This restructure has forced remaining units, many of which were previously specialized and tasked with a single role, to take on additional and more complex readiness taskings. Alaska-based units are perfect examples of this readiness tasking upgrading. During the Cold War, Alaska-based Air Force units were tasked to ensure Alaskan air sovereignty and to support ground forces defending the state. The scope and complexity of Alaska-based unit tasking in the post-Cold War era has increased considerably with the focus of air operations

now including support for more complicated, worldwide contingency air operations. Alaska-based units have been assigned critical readiness taskings due to Alaska's strategic position and access to potential hotspots around the world. Alaska basing and readiness tasking decisions reflect a commitment by the Air Force to obtain the maximum combat capability for limited defense tax dollars.

Given the additional readiness taskings, the existing MOA structure imposes significant restrictions and inefficiencies on training opportunities, training realism, and the full use of all the capabilities of the sophisticated aircraft/weapons systems presently based in Alaska. These restrictions severely limit the ability of Alaska-based units to 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 Eielson and Elmendorf AFBs, and precludes the accomplishment of critical routine training—in particularly Dissimilar Air Combat Training (DACT) and Composite Force Training (CFT). DACT and CFT are important components of air combat training that are readily available to other military aviation units throughout the continental U.S. The F-15 and F-16 are very different aircraft, possessing unique physical characteristics and performance capabilities. Aircrews must train against other types of aircraft to learn, preferably in a dynamic air combat training environment, how to enhance an aircraft's advantages while simultaneously minimizing the aircraft's disadvantages relative to the adversary aircraft. CFT allows aircrews to train as formed teams under very controlled conditions to learn the strengths and weaknesses of other military aircraft. CFT also stresses the importance of thorough planning, close coordination, and clear communications to maximize mission results. The lack of airspace that is mutually accessible to Eielson and Elmendorf AFBs in which to conduct this critical training unduly hampers Alaska-based units ability to achieve and maintain assigned combat readiness levels.

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

The airspace array in the Philippines was over both land and water. This combination of airspace over land and water was possible due to the close proximity of the Crow Valley air-to-ground weapons range to Clark Air Base and the airspace. The location of the three air-to-ground weapons ranges in the interior of Alaska severely limits the options for placement of MOAs in the state that are accessible to the air bases and the ranges. Selection of airspace over the waters surrounding Alaska would prevent the use of these ranges, which would prevent accomplishing required air-to-ground readiness training. Airspace over land is also a critical training asset because it permits low-altitude training that cannot be replicated over water. Despite the fact that the target attack phase of most DESERT STORM bombing missions was flown at medium-altitude to escape groundfire, the high-speed, low-altitude penetration mission is still the most likely attack profile for future conflicts. In fact, the use of medium-altitude attacks in DESERT STORM was made possible by the initial application of more classical low-altitude tactics. Quickly achieving total air supremacy as well as thoroughly suppressing Iraqi surface-to-air missile (SAM) defenses made near exclusive use of medium-altitude attacks possible. With no Iraqi aircraft or SAM threat, only groundfire remained as a threat to the coalition air force. Abandoning or even altering the basic application of low-altitude tactics based on a limited portion of the conflict that was made possible by these time-proven low-altitude tactics would be illogical.

MOAs are not created by separate services for their exclusive use. In fact, each service jointly uses the existing airspace system and only when that existing structure cannot meet its readiness training requirements are changes to the system proposed. The existing permanent MOA structure in Alaska is used by the Navy, Marines, and allied services for training with the Air Force. Use of the existing permanent MOA structure in Alaska was considered as an alternative, but was rejected since it could not fulfill the mandatory criteria to be designated a reasonable alternative (see section 1.3 and Appendix N).

PAN-002 COMMENT: Trans-sonic [supersonic] maneuvers are only used when a pilot has made a mistake. Hence, there is no training value for a pilot to go trans-sonic at a low altitude. If a pilot blew it, fess up, break contact, and start over. The victory goes to who holds the skies (altitude), if they got you down to the deck, you were wrong.

There are no clear reasons given for the proposed 5,000 feet AGL floor for supersonic operations. The rationale should be included in the Final EIS. On page 2-43, there is an apparent conflict regarding the normal ceiling for supersonic flying. It is stated that MOA restrictions mandate a ceiling of 17,999 feet Mean Sea Level (MSL), but the paragraph goes on to state that operations usually occur at higher elevations (e.g., above 20,000 feet MSL). This entire discussion needs clarification.

"Although most training events require only subsonic airspeed operations, some must be accomplished at supersonic airspeed to be effective." What criteria for which training requires supersonic?

RESPONSE: Proficient application of supersonic operations is a critical skill that demands routine practice to survive in the modern day air combat arena. Gains in air-to-air missile capabilities further stress the importance of aircrews being adept in separation/escape skills. Aircrews who are prevented from practicing these critical skills correctly will be ill-prepared for the dynamic and demanding air combat arena.

Most supersonic flight activity is completed at altitudes above 25,000 to 30,000 feet Mean Sea Level (MSL). This is the altitude where the greatest tactical advantage can be acquired over a potential adversary. For example, the higher you fly at fast (supersonic) speeds, the farther an air-to-air missile will travel. Maneuvering close-in to an adversary is normally most effectively conducted at subsonic speeds in the medium altitude band (5,000 to 25,000 feet Above Ground Level [AGL]). This altitude and airspeed region maximizes aircraft maneuvering abilities in order to gain or maintain offensive advantage. To be fully combat ready, aircrews must also be proficient in recognizing the need to safely separate and escape when placed at a disadvantage. Separation sometimes demands an acceleration to supersonic airspeed in order to escape and survive. The ability to accelerate quickly in this altitude band is enhanced by descending in altitude. These variables periodically require supersonic separation between 5,000 and 10,000 feet AGL. In reality, the variety of combat readiness training missions and the multitude of training objectives on any given mission limit the frequency of supersonic operations. Additionally, supersonic operations are quickly terminated due to high fuel consumption rates. Fuel consciousness is an important aspect of mission planning and a survival skill for all aircrews. Given the high costs of supersonic training, aircrews selectively integrate supersonic operations only when they are absolutely necessary to achieve core readiness training objectives.

Supersonic operations above 17,999 feet MSL would occur in overlying Air Traffic Control Assigned Airspace (ATCAA). As mentioned in the Draft EIS, ATCAAs are established, in accordance with FAA Handbook 7610.4, by a Letter of Agreement with the air traffic control facility in charge of the airspace. They are commonly associated with MOA airspace to allow increased vertical maneuvering. ATCAAs are not published on aeronautical charts, but non-participating aircraft are separated from military activity in the ATCAA by air traffic control (see Appendix D, section D.4.2.4).

PAN-003 COMMENT: Clarify if all the airspace considered under this EIS has to possess the characteristics of size, vertical limits, availability, and location described for MFE airspace on page 2-3 of the Draft EIS.

RESPONSE: The airspace description provided on page 2-3 of the Draft EIS describes the "suitably sized" area for conducting an MFE such as the Cope Thunder exercises. This area is made up of discrete MOAs, each having its own individual characteristics in terms of size, floor, ceiling, and hours of availability. For example the YUKON MOAs form a large parcel where exercise participants would gather forces after launch and prepare for the attack phase. The majority of the attack would progress through the larger YUKON 1 and 2 MOAs where a large volume of airspace (area and vertical dimensions) is used by nearly all participants in the exercise. South of the YUKON MOAs is the Oklahoma air-to-ground weapons range. Although ideally, exercise participants would like to have the freedom to enter the range from any aspect and altitude, other constraints such as civil flight routes and the location of the Delta Junction area preclude this flexibility. Thus the transition MOAs, Buffalo and Birch, are designed to be much smaller laterally and vertically to provide the needed corridors into the range. Conversely, the FOX MOA, south of this complex, has its primary use as a higher altitude air-to-air training area. Hence, its large size but higher floor.

During an MFE, it would be necessary to activate all MOAs in the Northern Interior, Southern Interior, and Southcentral Regions simultaneously for at least a 2-hour block, twice a day. For routine training operations, smaller portions of airspace could require simultaneous activation. The exact regions that would be used at any particular time would be dependent on the number of sorties being flown, the type of training (air-to-air and/or air-to-ground), and the weather conditions. These determinations would be made on a daily basis by the appropriate schedulers for each wing.

PAN-004 COMMENT: The expected increase in the number of MFE participants needs to be explained in an up front manner as to the numbers involved as compared to past (current) MFE activities.

RESPONSE: Sections 2.3.1 through 2.3.5 of the EIS provide an overview of each action and state the maximum number of aircraft/sorties involved in MFE training under each alternative. Table 2-7 of the Final EIS also summarizes this information across all the regions. Additional text has been added to section 2.2.2 stating that MFE training could involve as many as 100 aircraft per day, each flying up to 2 sorties per day, for a total of up to 200 MFE sorties per day (except under the No Action Alternative).

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2.14 National Environmental Policy Act (NEPA) Procedure

PRO-001 COMMENT: The Department of Defense has misled the public by piecemealing analysis of the connected and cumulative actions associated with military activities in Alaska. The piecemealed NEPA process violates NEPA regulations by hindering meaningful analysis and therefore discourages public participation. CEQ [Council on Environmental Quality] regulations clearly state that connected actions should be discussed in the same environmental impact statement [40 CFR 1508.25(a)(1)]. These regulations describe connected actions as those that "... are interdependent parts of a larger action and depend on the larger action for their justification." The piecemeal process should be dropped like a hot potato and the impacts and alternatives be considered in one Programmatic EIS. The 30 Aug 94 *Memorandum for Distribution* states "This Draft EIS assesses our proposal to upgrade the MOA structure in Alaska to improve Air Force readiness through routine, joint service, and multinational combat training and to support Major Flying Exercises." The Draft EIS failed to describe in full the connection between Air Force activities as described in the Environmental Assessment (EA) entitled *Major Flying Exercises in Alaska* and *Expansion and Upgrade of Military Training Routes in Alaska*. Since the same aircraft could be utilizing the *Proposed Improvements to Military Operations Areas in Alaska*, explain why the regional impacts of these proposed Department of Defense activities are being piecemealed. These actions are obviously connected, but are not being addressed in any cumulative fashion prior to a decision to approve the activities. This is being done despite the CEQ regulations for comprehensive analysis which requires that agencies should consider ... connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they trigger other actions which have required environmental impact statements. The EAs titled *Major Flying Exercises in Alaska* and *Expansion and Upgrade of Military Training Routes in Alaska* and the entire list of "Relevant NEPA Documents" found on page 1-9 clearly point out that the proposed improvements to Military Operations Areas cannot or would not proceed unless these actions taken previously were interdependent parts of this larger action and depend on the larger action for their continued justification.

When is the military going to clean up its existing messes throughout Alaska? No further damage should be inflicted upon our state just because there exists the perception that few people live here.

The EIS document is flawed in the fact that it does not address all of the military training exercises—Air Force flight training, bombing exercises, and Air Force support of Army land-based exercises—that will be performed in the MOAs, as well as on leased public lands in the state.

The Draft EIS continues the Air Force's recent practice of piecemealing connected actions with cumulative impacts in Alaska into separate projects with discrete NEPA analyses, rather than preparing a single EIS as required by 40 CFR 1508.25. In 1992 the Air Force published an EA for expanding Military Training Routes in Alaska, and in 1993 it published an EA for expansion of Major Flying Exercises in Alaska, in both cases finding no significant impact. These actions, along with the present proposal to expand Military Operations Areas, are interdependent parts of the larger Air Force action of providing what the Air Force believes is appropriate flying training routes and Major Flying Exercises. This series of proposals continues connected actions for which a single EIS is required. *Thomas v. Peterson*, 753 F.2d 755, 758-59 (9th Cir. 1985); *Shoshone-Paiute Tribe v. United States*, No. 92-188-S-HLR (D. Idaho, filed October 7, 1994, Magistrate's Recommendation and Order).

There has been no review of how much other airspace in Alaska is being used by the Air Force, Army, Navy, and National Guard as air corridors or training. Review of the Joint Military Training Exercises Environmental Impact Statement shows many other areas where there will be aerial support of combat forces (i.e., low level flights).

Our organizations have major concerns about the continued failure of the Air Force to satisfy the requirements of NEPA and to ensure that proposed activities are compatible with the conservation goals of the Alaska National Interest Lands Conservation Act (ANILCA) and the requirements of the Federal Land Policy and Management Act (FLPMA). The NEPA process has been fundamentally flawed, there is no true "no action" alternative nor basis for impact analysis, and an adequate range of alternatives has not been proposed. In order to comply with NEPA and other laws, and to address our concerns about the impacts to wildlife, wilderness, and the federal and state conservation systems in Alaska, substantial changes will have to be made in the Final EIS.

The 11th Air Force has chosen to rely on six "stand alone" environmental assessments that, when viewed separately, resulted in findings of no significant impact (Volume I of the Draft EIS, p. 1-9, para. 1.7.4).

RESPONSE: Some commenters have alleged that the Air Force has piecemealed what is essentially a single major federal action by analyzing past actions (e.g., F-15E beddown, F-16 beddown, Major Flying Exercises [MFEs], and Military Training Routes [MTRs]) by the use of EAs. The commenters argue that these past actions were connected to the proposed MOA improvements and should have been the subject of a single EIS. They maintain that the Air Force actions that were the subject of EAs since 1990 were in reality a single federal action consisting of a "group of connected actions to implement a specific . . . plan" [see 40 CFR 1508.18(b)(3)]. Connected actions are defined as actions that: "(i) Automatically trigger other actions which may require environmental impact statements; (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously; (iii) Are interdependent parts of a larger action and depend on the larger action for their justification" [40 CFR 1508.25(a)(1)].

The allegations concerning connected actions are not substantiated and are untimely. Cases dealing with connected actions apply the "independent utility" test to proposed actions to determine connectivity and the requirement for a comprehensive EIS [*Town of Huntington v. Marsh*, 859 F.2d 1134 (2nd Cir. 1988)]. The 9th Circuit has defined independent utility to mean "utility such that the agency might reasonably consider constructing only the segment in question" [*Thomas v. Peterson*, 753 F.2d. 754, 760 (1985)]. If the proposed actions are so dependent upon each other that it would be irrational or unwise to undertake the first action, then they are connected [*Trout Unlimited v. Morton*, 509 F.2d. 1276, 1285 (9th Cir. 1974)].

Each of the previous EAs dealt with actions that had utility in and of themselves. The beddown EAs considered the impact of basing new types of aircraft in Alaska. The beddown of new aircraft types clearly had the requisite independent utility and was rational notwithstanding the current proposal. The beddown was not dependent on the subsequent development of MTRs or improvements to airspace, nor did it automatically trigger new MTRs or improvements to airspace. MTRs have a distinct training function in facilitating low-altitude navigational training, whereas MOA training develops air combat maneuvering. Redesignating the MTRs in Alaska in order to improve their utility was not necessarily required in order to accommodate the new types of aircraft, it was not connected to MFEs since MTRs are not used for MFEs, nor was it required to facilitate the MOA improvements that are the subject of this EIS. The MTRs have a utility that is not dependent upon any of the actions taken or contemplated to be taken. The decision to move Cope Thunder to Alaska was triggered by the unexpected destruction and closure of Clark Air Base, not by new MTRs or new aircraft types in Alaska. And while the proposed improvements to Alaska's MOA structure will benefit the Cope Thunder exercises, they are not required for the conduct of the exercises. With each of the actions that the commenters allege to be connected, the Air Force could have reasonably considered to do only that action and none of the others and the action taken would still have had utility.

The commenters who now allege that these actions are connected did not challenge any of the EAs at the time. The CEQ regulations and the case law make clear that the issue of connected actions arises in two contexts: 1) When making the decision whether an EIS is required (40 CFR 1508.18, 1508.27) and 2) when determining the

scope of that EIS (40 CFR 1508.25). The proper time to raise the issue of connected actions, therefore, was when an EA and Finding of No Significant Impact (FONSI) were first decided upon in the face of existing proposals that were connected to the action FONSI'd. NEPA applies only to proposed actions, not contemplated actions [*Kleppe v. Sierra Club*, 427 U.S. 390 (1976)]. Challenging past actions as being connected to the proposed improvements to MOAs is a misinterpretation of the concept of connected actions. The definitions in the CEQ regulations and the case law all point to connected actions as being proposals for future actions that necessarily arise out of or are dependent upon the challenged proposal. Connected actions do not include completed past actions. To determine otherwise would prevent an agency from ever formulating new proposals to improve or build upon a past action without beginning the NEPA process anew each time. Additionally, analyzing a past, completed action as a connected action serves no purpose since undoing the past is often not possible and would lead to the analysis of alternatives that could not be implemented.

The CEQ regulations also require the consideration of cumulative and similar actions when determining whether an EIS should be accomplished [40 CFR 1508.25(a)(2) and (3)]. Again, the definitions of cumulative and similar actions refer to "proposed" or "reasonably foreseeable," not past, actions. In determining the scope of the EIS, the past actions the commenters allege should now be analyzed retroactively in a comprehensive EIS were correctly not considered as cumulative or similar actions.

This is not to say that past actions are never relevant to a decision on whether or not to accomplish an EIS and the scope of that EIS. 40 CFR 1508.27(b)(7) requires that an agency consider cumulative impacts when deciding whether an EIS is required. A cumulative impact is defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions . . . Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7). The scope of any subsequent EIS must then necessarily include consideration of cumulative impact [40 CFR 1508.25(c)]. This is exactly what was done in determining whether an EIS needed to be accomplished for the proposed MOA improvements. In that decision and in the scope of the subsequent EIS, the impacts identified in the MTR EA and the MFE EA were considered as cumulative impacts.

The commenters' desire for a comprehensive EIS including all military training in Alaska ignores the fact that while proposals for Army, Air Force, and joint training may meet the CEQ definition for reasonably foreseeable cumulative impacts, they are not necessarily connected, similar, or cumulative actions simply because they may all involve some sort of military training.

PRO-002 COMMENT: Throughout the EIS you list massive changes to your TMOAs and MOAs which are our airspace, homes, wilderness and wildlife areas, and subsistence and recreation areas. Most of these changes are detrimental and in many cases dangerous. The EIS states that many of these actions are under way with no EIS or public input having been done. Basing much of the justification for the current EIS on this fact discredits the whole statement.

The United States Air Force and by concurrence the Federal Aviation Administration have failed to abide by the requirements of NEPA. There were no public hearings or Environmental Impact Statements prepared for the basing of F-15Es and F-16C/Ds at Elmendorf and Eielson Air Force Bases, clearly a major federal action. Likewise, no public hearings or Environmental Impact Statements were prepared for Cope Thunder activities.

We are very much disturbed by reports that the Draft Environmental Impact Statement for Alaska Military Operations Areas includes a Military Training Route that goes from near Stony River, northwest toward Galena, and then turns south to again parallel the river. The eastern leg of this

route crosses several airways serving western Alaska from Fairbanks, and, with fast planes flying below 1,500 feet, threatens the safety of people living in western Alaska.

RESPONSE: NEPA requires federal agencies to assess the environmental impacts of major federal actions. How this is accomplished—through an Environmental Assessment or an Environmental Impact Statement—is up to the agency. An EIS is only required if significant adverse impacts are expected or revealed through an EA. An EA is a concise public document that an agency prepares when a project is not covered by a categorical exclusion, and the agency does not know whether the impacts will be significant [40 CFR 1508.9(a)]. The EA has three purposes: 1) to provide sufficient evidence and analysis to determine whether an EIS is required; 2) to support an agency's compliance with NEPA when no EIS is required; and 3) to facilitate preparation of an EIS when one is required.

In accordance with NEPA and Air Force regulations (AFR 19-2), the EAs completed for the *Major Flying Exercises in Alaska* and the *Expansion and Upgrade of Military Training Routes in Alaska*, which resulted in FONSI's, were announced through appropriate media channels and made available to the public in March 1993. Following completion of the EAs, the proposals to establish the airspace were circularized by the Federal Aviation Administration (FAA) in accordance with its regulations outlined in *Procedures for Handling Airspace Matters (7400.2)* (FAA 1993). The circularization process is used by the FAA to solicit input from the public regarding proposals to establish or modify airspace. Circularization notices contain a complete, detailed description of the airspace proposal including charts, if appropriate, to assist interested persons in preparing comments. At a minimum, the FAA sends circularization notices to all known aviation-interested persons and groups such as national and local offices of aviation organizations, local flight schools, local airport owners, managers, and fixed-base operators, and local air taxi and charter flight offices. Input received during circularization is used by the FAA to help determine the final parameters of an airspace proposal (e.g., floors, ceilings, corridor widths, etc.).

PRO-003 COMMENT: My first comment concerns the availability of the complete Draft EIS. It is not available in the public library; the University of Alaska library could not find their copy, which left one copy at the BLM library for 250,000 people in the Anchorage area, half the population of the state.

At the very least, I suggest you hold public hearings and extend your comment period so you can see how many people really are affected by your proposal.

While a reasonable effort was made to "permit the widest participation by the people of Alaska (p. 1-4 of the Draft EIS)," what about those not currently residing here but still taxpayers, voters, and possible residents and visitors? These proposed operations are a major federal action; stakeholders are more than those living nearby. What efforts were made to allow for broad public participation?

Although we appreciate the efforts of the Air Force to hold additional public meetings in Alaskan communities, we were very disappointed that the public did not have adequate time to review the Draft EIS prior to public hearings. The time period between release of the EIS and the hearings was extremely short, especially in light of the fact that the EIS was virtually only available in the public libraries prior to the hearings. This problem of lack of availability of the EIS made it difficult for the public to adequately address the issues in the EIS at the hearing.

I insist that the Air Force extend the public comment period, . . . and that the FAA hold public hearings on the issue.

The public comment period was too short and ill-chosen due to the state and local elections in early November and the beginning of the holiday season last week. To be fair to the residents of Alaska, the period for public comment must be extended until at least January 31, 1995.

RESPONSE: As part of the scoping process for the EIS, the Air Force invited agency and public participation in defining the issues to be analyzed. The Notice of Intent (NOI) to prepare an EIS was published in the *Federal Register* on July 9, 1993. Public scoping meetings were announced in regional and local newspapers following publication of the NOI and again at least 2 weeks prior to each meeting. The formal scoping comment period extended through October 31, 1993 (approximately 4 months). However, comments received as late as November 23, 1993, were integrated into the scoping report, which is part of the Administrative Record for the EIS. As indicated in section 1.5.1.1 of the EIS, an effort was made to ensure the widest participation possible by the people of Alaska in the scoping process. The Air Force delayed public scoping meetings until September 1993 to allow Alaskans to complete seasonal subsistence and recreation activities. Scoping meetings were held between September 20 and November 15 at 14 locations in the Region of Influence (see section 1.5.1.1). An additional meeting was held in February 1994 in Tok, Alaska, to gather input regarding Alternative B. Numerous scoping meetings were also held with federal, state, and local agencies and special interest groups such as environmental organizations, civil aviation associations, etc. (see Chapter 6).

The Notice of Availability (NOA) of the Draft EIS was published in the *Federal Register* on September 2, 1994. Announcements of the availability of the Draft EIS and plans for public hearings were subsequently published in regional and local newspapers. Formal public hearings were held in the same 15 communities where scoping meetings had been held. Again, numerous meetings with federal, state, and local agencies and other interested groups were held. The initial public review period was scheduled to end October 31, 1994, but was later extended to November 30, 1994 (a total of 90 days, twice the public comment period required by NEPA).

The Air Force distributed 176 copies of the Draft EIS and over 600 copies of the Executive Summary (see Chapter 8). Copies of the Draft EIS were sent to community libraries throughout the Region of Influence and to the National Technical Information Service (NTIS), a national clearinghouse for federal documents. In Anchorage, the University of Alaska Anchorage's Consortium Library and the Bureau of Land Management's Alaska Resources Library function as repositories for public review documents released by the Air Force. A copy of the Draft EIS was also provided to the Anchorage Municipal Library, but may not have been immediately cataloged and made available. The Air Force has no control over documents supplied to libraries, and the ability or failure to locate and retrieve documents is a library matter. The Final EIS will be distributed to two additional libraries in Anchorage and to libraries in Aniak, Bethel, Dillingham, Palmer, Wasilla, and Denali National Park and Preserve.

Two weeks elapsed between the announcement of release of the Draft EIS on September 2, 1994, and the first public hearing on September 19, 1994. Although this may have been somewhat short, the public hearings were only one forum for submitting comments. Individuals who attended the public hearings were encouraged to ask questions and voice concerns, but were also assured that they could submit comments at any time during the comment period. The timing of the hearings, like the scoping meetings, was chosen in response to requests from members of the public and agencies to avoid busy recreation, subsistence, and hunting seasons.

Paid advertisements announcing availability of the Draft EIS, the public hearings, and the extension of the public comment period were placed in regional and local newspapers. Over the 3-month public comment period, a number of articles appeared through local media outlets (newspapers, radio, and television). Several agencies and organizations also sent announcements to their memberships nationwide encouraging input on the Draft EIS.

Once the Air Force has issued the Final EIS for public review, the FAA will hold informal, informational airspace meetings as part of its circularization (public review) process for airspace proposals. Upon receipt of the FAA comments, the Air Force will issue its Record of Decision on the EIS.

PRO-004 COMMENT: Without exception the Draft EIS conducts what could best be described as "best case" analyses in clear violation of CEQ regulations. Those regulations require that, particularly in

cases where potential effects are unknown or substantially hypothetical, "worst case" analyses of the potential impacts be conducted. This point is demonstrated by an early statement in the Draft EIS, "Deployed aircraft may include all types in the DoD inventory, as well as similar allied aircraft" (p. 1-3 of the Draft EIS). However, although the totality of the DoD inventory may have noise and other impacts of substantially higher magnitude, the noise impacts throughout the Draft EIS are calculated using the specifications of the F-15 and F-16 type aircraft only. The worst case analysis must be applied to all of the sections and potential impacts within the EIS.

CEQ regulations for the implementing NEPA require a "worst case" analysis. The Draft EIS does not provide a worst cases scenario as required by NEPA. For example, throughout the Draft EIS noise analysis is calculated for the F-16/F-15 aircraft, yet on page C-5 there is a listing of over a dozen different military aircraft. Even this list is inadequate in describing the proposed activities when on page 1-3 the Draft EIS states that "Deployed aircraft may include all types in the DoD inventory, as well as similar allied aircraft." Many of these aircraft are much louder than the F-16/F-15. For example, the F-4 is most likely the loudest aircraft in the DoD inventory. Additionally, there is no noise calculation or data presented for additional NATO or multi-national combat training aircraft.

Throughout the Draft EIS, the reader is presented with conclusions that supersonic activities would be authorized to 5,000 feet AGL, but would occur at 20,000 feet AGL. This is not a worst case analysis as required by NEPA. If the Air Force does not expect to conduct supersonic activities at the 5,000 foot altitude, then the floor of all supersonic activities must be 20,000 feet AGL. This analysis reminds me of the following line from the movie *Field of Dreams*, "If you build it, they will come."

RESPONSE: In 1986, the CEQ amended its regulations to delete the "worst case" analysis previously required in an EIS (51 *Federal Register* 15625, April 25, 1986). Despite this, some courts continued to require a worst case analysis when scientific information was unknown or unobtainable. The Supreme Court finally ended the confusion by noting that NEPA did not require a worst case analysis and, since it was a creature of the CEQ, CEQ's abolition of it was entitled to great deference [*Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 (1989)]. The Air Force has complied with 40 *CFR* 1502.22 regarding the handling of "reasonably foreseeable significant adverse impacts" in the absence of incomplete or unavailable information.

PRO-005 COMMENT: How is it possible that the Air Force need not comply with Section 810 of the Alaska National Interest Lands Conservation Act that addresses subsistence? How is that the Air Force need not consult with the Alaska Board of Game? How is it that the Air Force need not address the Migratory Bird Treaty and the Migratory Salmon Treaty? With the Canadian border as one of the training boundaries, how is that the Air Force need not consult with the U.S. State Department and Canadian national and provincial governments? In other states, the Bureau of Land Management has not approved low level training flights, nor the use of chaff and flares over BLM-administered lands. How is it that allowing Level III or II impacts to the BLM recreation areas (page 2-77 of the Draft EIS) fits with BLM's mission "to sustain the health, diversity and productivity of the public lands for the use and enjoyment of present and future generations"?

The National Park Service formally recognizes the difference between military and non-military use of park resources (and implicitly the degradation which results from military use) in Special Directive 83-4, recommending: "Military activities, in general, should not be allowed in park areas with the exception of those that relate to usual and normal park activities, such as search and rescue, outdoor survival, and events not simulating conditions encountered in combat situations." Specific to Yukon-Charley, contained in portions of the YUKON 1, 2, 3, and 4 MOAs, the Draft EIS states that the operations will have, by DoD's own criteria, "significant adverse impacts" on the recreation resources

in 54 percent of the park, and "adverse impacts" on the remaining 46 percent. Clearly, the proposed military use of this park unit would cause disruption of the resources and values in 100 percent of the park, in clear contravention to the purpose for which the park unit was established.

The authority of the National Park Service to safeguard the values and resources for which the National Park System was created is clear in both the Organic Act and NPS regulations, and must be reconciled by the Air Force proposal. The specific authorities provided to the National Park Service by a variety of additional statutes, however, bear repeating:

*The National Park Service Organic Act and Regulatory Interpretations*¹. The National Park Service Organic Act and subsequent regulations provide the National Park Service with the primary and overarching direction to protect park resources. Regulations and policies promulgated by NPS demonstrate a consistent interpretation of the Organic Act's mandate to first protect the resources and then to provide for public use. Authors of the Vail Agenda confirmed this direction, recommending that the "primary responsibility of the National Park Service must be the protection of park resources."² This philosophical direction is confirmed by NPS management policies and extended to provide direction to park managers to protect park resources from potential threats as well.³

The Wilderness Act. The Wilderness Act prohibits development of any kind and severely limits human intrusion on lands designated as wilderness for the specific purpose of preserving the "primeval nature" of land "where the imprint of man's work is unnoticed." In accordance with National Park Service recommendations pursuant to Section 1317 of P.L. 96-847, Yukon-Charley Rivers National Preserve's over 2.2 million acres is actively managed as wilderness, awaiting formal designation. Of all the legislative authorities, the intent of the Wilderness Act and the philosophical underpinnings of the Act are most clear. NPS cannot physically be in compliance with the Wilderness Act if it allows uses of the land that degrade its primeval character. Military overflights of wilderness degrade the primeval character of the land, leaving the imprint of human work obvious to all creatures on the ground. The Department of the Air Force must reconcile its proposal for the use of Yukon-Charley with the requirements of the Wilderness Act.

The Endangered Species Act. The ESA prohibits federal agencies from authorizing, funding, or carrying out actions that would jeopardize the existence of endangered species.⁴ The courts have interpreted this mandate to mean that agencies must pursue a policy of institutional caution where endangered species are concerned. National parks are repositories of endangered species. The Park Service has documented that populations of endangered peregrine falcons rely on Yukon-Charley for their primary habitat. The Department of the Air Force proposal for YUKON 1, 2, 3, and 4 MOAs would very clearly violate both the letter and the intent of the protections provided by the Endangered Species Act.

FAA Authorities. In addition to the legal protections described above, substantial legal basis for the protection of park values and resources from overflights is also established by Section 4(f) of the Transportation Act, specific to the FAA. Though the FAA is not the agency proposing the action, it does have formal review and approval responsibilities for military airspace designations and withdrawal plans. The regulatory structure imposed by Section 4(f) should therefore apply. Section 4(f) specifies that the Secretary "may approve a transportation plan or project requiring use of publicly owned land or a public park, recreation area, or wildlife and waterfront refuge of national, state, or local significance . . . only if 1) there is no prudent and feasible alternative to using that land, and 2)

¹National Park Organic Act of 1916, 16 USC §1.

²*National Parks for the 21st Century*, ("The Vail Agenda"), National Park Service Document D-726, p. 3.

³*Management Policies*, U.S. Department of the Interior, National Park Service (1988), p. 1:4.

⁴16 USC § 1551 *et seq.*

the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfront refuge, or historic site resulting from the use."¹

At least 10 conservation system units and 5 Wild and Scenic Rivers will be affected by the permanent MOAs and MTRs. Based on the information available to us, we believe that the proposed low-level overflights, sonic booms, military helicopter landings, ground troop exercises, and other training exercises are incompatible with the conservation purposes of ANILCA conservation units and that these proposals should be re-evaluated so that such areas are not used. The Draft EIS also fails to provide a comprehensive analysis of the impairment and degradation of wildlife, wilderness, subsistence, and other Congressionally-mandated purposes for conservation system units established by ANILCA. For example, the Draft EIS separately discusses harm to wildlife and recreation values within each conservation unit. Furthermore, it completely neglects to conduct an analysis of impacts to subsistence uses on federal lands as required under Title 8 of ANILCA. The Air Force must make a findings under Section 810 of ANILCA, and has failed to adequately comply with this requirement in the prior EAs on MTRs and MFEs.

On page 1-8, the Draft EIS notes the applicable regulatory requirements which apply to the proposed action. This section failed to recognize the following applicable regulatory requirements:

- Minimum Safe Altitude: General, *FAR 91.119*
- Careless or Reckless Operation, *FAR 91.13*
- FAA Advisory Circular 91-36C
- National Park Service Creation and Purpose, *16 U.S.C. 1*
- Wilderness Act, *16 U.S.C. 1131*
- Wildlife Protection, *36 CFR 2.2*
- Audio Disturbance, *36 CFR 2.12*
- Memorandum of Understanding between National Park Service (NPS) and FAA, September 1994
- Military Operations in the National Park System (Special Directive 83-4)
- American Indian Religious Freedom Act of 1978, *42 U.S.C. 1996*
- Archaeological Resources Protection Act of 1979, *16 U.S.C. 470*

Other regulatory actions demand attention in association with the proposed action. How will the regulations established in the Clean Air Act, Noise Control Act of 1972, National Park Organic Act of 1964, the Wild and Scenic Rivers Act of 1968, the Administration of the National Park Service Act of 1970, Archaeological and Historic Preservation Act of 1974, Farmland Protection Policy Act, and Fish and Wildlife Coordination Act be abided by?

RESPONSE: These comments raise the issue of compliance with various Acts and regulations. The following response addresses each individually.

The Alaska National Interest Lands Conservation Act of 1980 (ANILCA).

Several commenters on the Draft EIS have alleged that ANILCA (Pub. L. 96-487, *16 U.S.C. 3101 et. seq.*) potentially impacts the MOA EIS in two areas: 1) Subsistence impacts and 2) overflights of established conservation units.

Section 810 (*16 U.S.C. 3120*) of the statute establishes procedures, including public hearings, for the protection of subsistence uses in land use decisions. The text of this section reads in part:

¹49 USC §303 (c).

In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands under any provision of law authorizing such actions, the head of the Federal agency having primary jurisdiction over such lands or his designee shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes. No such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be effected until the head of such Federal agency . . .

Section 810 contains language which must be examined before the question of its applicability to military overflights can be answered. It applies to decisions by "the head of the Federal agency having primary jurisdiction over such lands" concerning whether he or she should "withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands." It is readily apparent that establishing MOAs does not involve a withdrawal, reservation, lease, occupancy, or disposition of public lands. The only possible argument for Section 810's applicability to the establishment of MOAs is that the consequent overflights constitute a "use" for which a "permit" is required.

Generally, aircraft overflights are not uses of the underlying surface. With the advent of aviation, the common law rule of ownership of the surface to "the heavens" has been abrogated (*U.S. v. Causby*, 328 U.S. 256, 90 L. Ed. 1206, 66 S. Ct. 1062). Unless and until the overflights amount to a trespass, nuisance, or a taking, there is no use of the surface that accompanies aircraft overflights. This determination is based on the existence of legally enforceable property rights in the surface estate, and the altitude, frequency, and duration of the overflights (see generally 8 Am Jur 2d. 340 4). The reported cases on aircraft overflight interference with property rights deal with private property not public property, but may provide the standards upon which a court might review aircraft overflights to determine whether there is a use of public lands. It is worth noting that, although not dispositive of the question at hand, research has disclosed no reported cases applying Section 810 procedures to aircraft overflights. That Congress was aware of the extensive use of Alaska for military aircraft training and did not intend to end or restrict it is evident from the legislative history of ANILCA (see below).

Section 810 refers to determinations to withdraw, reserve, etc. or permit the use of public lands made under "any provision of law authorizing such actions." Nowhere in ANILCA or in any other applicable provision of law, is the Secretary of the Interior given authority to permit or prohibit military aircraft overflights of any public lands subject to Section 810. Therefore, Section 810 and its hearing procedure 1) is not applicable to the DoD as it is not the "Federal agency having primary jurisdiction over such lands"; 2) is not applicable because military overflights of public lands do not per se constitute "use" of those lands, and; 3) even if overflights do constitute "use," the Secretary of the Interior has promulgated no procedures to "permit" such use and by not issuing permission therefore prohibit it. Please note that despite the inapplicability of Section 810, the EIS analyzes potential impacts to the environment and in Alaska, subsistence cannot be separated from the environment. Consequently, the analysis in the EIS serves the same purpose as Section 810—that is to analyze and avoid or mitigate the impacts of proposed actions on subsistence.

Another issue under ANILCA is whether the Air Force can be prohibited from or are obligated to avoid overflights of conservation units, including but not limited to the Yukon-Charley wilderness unit. In its comments on the Military Training Routes Environmental Assessment (letter of 7 April 1993), the Sierra Club Legal Defense Fund argued that establishing MTRs over conservation units required consultation with the Secretary of the Interior in accordance with Section 1310(b) [16 U.S.C. 3199(b)]. This provision of ANILCA applies to the "establishment, operation, and maintenance within any conservation system unit of new air and water navigation aids and related facilities, facilities for national defense purposes, and related air and water navigation aids..." The clear language of this provision makes it applicable to "facilities" within conservation units. Although

"facilities" is not defined in the statute, the examples cited in Section 1310 are all man-made structures occupying space on the ground. The legislative history indicates that Congress contemplated "facilities" to mean structures by indicating that the section was meant to allow the facilities listed "to remain in place and be operated and maintained" (1980 U.S. Code & Cong. Ad. News 5250). The most direct evidence that Congress did not intend to restrict military overflights of conservation units is also in the legislative history:

The Committee understands that extensive military overflights of Alaska occur as part of the role and mission of Alaska Command. It is not the intent of the Committee that these overflights be prevented. In general, the Committee has adopted a policy that the use of airplanes is to be continued, and the Committee feels that this policy should apply to military overflights as well as civilian operations (1980 U.S. Code & Cong. Ad. News 5193).

Therefore, Section 1310(b) does not apply to the establishment of military operations areas over conservation system units.

The Wilderness Act, The National Park Service Organic Act, and The Wild and Scenic Rivers Act.

Some commenters have cited the purpose language or individual sections of various statutes or their implementing regulations to allege that the Air Force is engaging in conduct either prohibited or incompatible with the purpose of these statutes or the mandates of the agencies charged with administering these laws.

First, it must be noted that most of these acts impose duties on the federal agencies charged with administering them, not upon all federal agencies. Second, it is well established that one federal agency's mandate does not supersede that of another and generally provides no authority to regulate the activities of other federal agencies unless Congress specifically so provides. For example, even commenters who believe that military overflights are incompatible with the purposes of wildlife refuges recognize that they "involve congressionally sanctioned activities of other federal agencies and require individualized legislative attention" (Fink 1994). Therefore, in order to regulate the activity of other federal agencies, an agency must have Congressional authority.

There is no direct authority under any of the statutes or regulations previously listed that allows the Department of the Interior (DOI) to regulate or prohibit military overflights of wilderness, parks, wild and scenic rivers, or wildlife refuges. This fact is recognized by the DOI and FAA interagency agreement, which encourages a minimum 2,000 foot overflight altitude above lands deemed to be sensitive by the DOI. Without authority to regulate the activities of other federal agencies, an agency must rely on voluntary restrictions on those activities agreed to by those agencies. The Final EIS reflects the outcome of this process, which resulted in numerous voluntary changes in the proposed action and voluntary restrictions on Air Force activities in an effort to balance the mandates of the various federal agencies involved.

The Farmland Protection Policy Act.

The primary purpose of the Farmland Protection Policy Act [7 U.S.C. 4201(b)] is "to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses . . ." The applicability of the Farmland Protection Policy Act is very narrow. Section 4201(c)(4) defines a federal program as "those activities or responsibilities of a department, agency, independent commission, or other unit of the Federal Government that involve (A) undertaking, financing, or assisting construction or improvement projects; or (B) acquiring, managing, or disposing of Federal lands and facilities." It is readily apparent that the improvements to Alaskan MOAs are not the types of federal programs covered by the Farmland Protection Policy Act.

The Fish and Wildlife Coordination Act.

The Air Force has met the requirements of the Fish and Wildlife Coordination Act (16 U.S.C. 661) by consulting with DOI and USFWS on issues affecting wildlife as well as by conducting Section 7 consultation under the Endangered Species Act.

The American Indian Religious Freedom Act

The American Indian Religious Freedom Act (AIRFA) (42 U.S.C. 1996) establishes a policy of federal protection and preservation of the traditional religions of American Indians, Eskimos, Aleuts, and Native Hawaiians. The only substantive requirement of AIRFA is that federal agencies must evaluate their policies and procedures with the aim of protecting Indian religious freedom and to consult with Indian organizations in regard to proposed actions [*Havasupai Tribe v. U.S.*, 752 F.Supp. 1471 (D. Ariz. 1990) *affmd.* 943 F.2d 32 *cert. den.* 112 S. Ct. 1559].

During the course of the EIS, scoping meetings and public hearings were held in the following rural and Alaska Native villages: Arctic Village, Lime Village, Chalkyitsik, Dot Lake, Fort Yukon, Eagle, Sleetmute, Venetie, and McGrath. Alaska Native groups were also consulted, and copies of the Draft EIS Executive Summary were provided to the following organizations:

- | | |
|---|---|
| ■ Ahtna, Inc. | ■ Eagle Village Council |
| ■ Alaska Federation of Natives | ■ Fort Yukon Native Village |
| ■ Alaska Native Foundation | ■ Gulkana Village Council |
| ■ Arctic Village Traditional Council | ■ Gakona Village Council |
| ■ Baan o yeel kon Corporation | ■ Healy Lake Village Council |
| ■ Beaver Native Village Council | ■ Iliamna Natives Limited |
| ■ Birch Creek Native Village Council | ■ Iliamna Village Council |
| ■ Bristol Bay Native Association | ■ Koliganek Village Council |
| ■ Calista Corporation | ■ Kuskokwim Corporation |
| ■ Community of Cantwell | ■ Kuskokwim Native Association |
| ■ Chalkyitsik Native Corporation | ■ Lime Village Company |
| ■ Chalkyitsik Village Council | ■ Lime Village Traditional Council |
| ■ Chickaloon/Moose Creek Native Association | ■ Mandas Cha-ag Native Corporation |
| ■ Chickaloon Traditional Council | ■ McGrath Native Village |
| ■ Chistochina Village Council | ■ Mentasta Lake Village Traditional Council |
| ■ Circle Village | ■ Mentasta Village Council |
| ■ Cook Inlet Region, Inc. | ■ Red Devil Corporation |
| ■ Cook Inlet Tribal Council | ■ Sleetmute Traditional Village Council |
| ■ Copper River Native Association | ■ Stony River Village Council |
| ■ Crooked Creek Village Council | ■ Tanacross Village Council |
| ■ Danzhit Hanlani Corporation | ■ Tanacross, Inc. |
| ■ Dillingham Native Village | ■ Tanana Chiefs Conference |
| ■ Dot Lake Native Corporation | ■ Tihtet' Aii, Inc. |
| ■ Dot Lake Village Council | ■ Venetie Traditional Council |
| ■ Doyon, Ltd. | |

No concerns were raised regarding impacts on native religious practices or cultural and religious sites except in the context of subsistence, which was extensively analyzed under its own section. Subsistence has been described by the president of the Tanana Chiefs Council as "the very foundation of Native religious belief systems . . ." (*Anchorage Daily News*, February 19, 1995, p. D10). Consequently, the provisions of AIRFA have been followed.

The Federal Land Policy and Management Act (FLPMA)(43 U.S.C. 1701-1784)

Section 302 of FLPMA directs the Secretary of the Interior to "regulate . . . the use, occupancy, and development of the public lands . . ." This and other language in the law, as well as the legislative history of FLPMA, indicate that Congress sought to regulate intrusions onto the public lands that change the physical characteristics of the land (i.e. use, occupancy, and development). Pre-FLPMA, the Secretary granted special use permits to the Army for the conduct of exercises on public lands. After FLPMA, the Secretary determined that Section 302 did not allow him to continue to grant such permits for military training. To remedy this problem, the Army introduced legislation to allow the Secretary to grant "nonrenewable general authorizations" for the temporary use of public lands in Alaska [P.L. 100-586, codified at 43 U.S.C. 1732(d)] [FLPMA 302(d)].

That Congress and the Executive branch contemplated actual physical intrusions is again clear from the legislative history (1988 U.S. Code Cong. Ad. News 3973) and the statutory language. Nowhere is there any indication that Congress felt that military overflights constituted use, occupancy, or development of the public lands. The legislation also set forth procedures for closure of lands used for military training to the public; hardly a concern with military overflights since Section 302(d) explicitly prohibits permitting military training involving "aerial or other gunnery" on public lands administered by BLM. The requirements of Section 302 do not apply to overflights, be they military or civilian, of public lands.

Some commenters seem to base their FLPMA objections on 43 U.S.C. 1701(a)(8) [FLPMA 102(a)(8)], which sets forth one of Congress' policies as being the management of public lands "in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values..." However, Congress is quick to temper this policy statement by noting that "[T]he policies of this Act shall become effective only as specific statutory authority for their implementation is enacted by this Act or by subsequent legislation..." [FLPMA 102(b)]. In other words, the policy statement of FLPMA is not substantive law in and of itself and is not made enforceable except through additional specific statutory authority. As discussed above, there are no FLPMA provisions or other subsequent legislation, that prohibit or otherwise restrict military overflights of public lands in furtherance of this policy statement have been found.

Interagency Agreement on Minimum Flight Altitudes Over Sensitive Lands

In December 1992, the FAA, BLM, USFWS, and the NPS renewed an Interagency Agreement (IAG) whereby FAA agrees to encourage voluntary compliance with a minimum 2,000 foot AGL requested minimum altitude over lands administered by NPS, USFWS, and BLM.

As discussed above, one federal agency cannot restrict the actions of other federal agencies without Congressional authorization or voluntary agreement. While the Federal Aviation Regulations (FARs) are generally applicable to military flights, those regulations do not provide for a minimum 2,000 foot AGL in MOAs whether or not over lands subject to this IAG. DoD is not a signatory to this IAG and it is therefore not binding upon Air Force overflights and cannot be cited to impose restrictions hampering efficient and effective military training over public lands.

Department of Transportation Act, Section 4(F)

Section 4(f) of the Department of Transportation Act prohibits the use of public parkland and wildlife refuges by "transportation projects" unless no feasible and prudent alternative exists.

Although the only case found that addresses Section 4(f) in the context of Special Use Airspace (SUA) did not question 4(f)'s applicability except to note that no parklands or refuges were affected [*State of North Carolina v. F.A.A.*, 957 F.2d 1125 (4th Cir. 1992)] challenge to establishment of an RA for a Navy bombing range), the Air Force believes that the establishment of SUA is not a transportation project and Section 4(f) is therefore not applicable. Even if Section 4(f) were applicable, overflights of parklands are not so intrusive as to constitute a "constructive use" (see response to comment PRO-007), and that Appendix N indicates that there is no feasible and prudent alternative to overflights of parks and wildlife refuges.

PRO-006 COMMENT: Why was the Description of Proposed Action and Alternatives (DOPAA) not made available for public review?

RESPONSE: Neither CEQ nor Air Force regulations for implementing NEPA require that a DOPAA be made available for public review. However, the purpose of scoping is to solicit input on the Proposed and Alternative Actions. During the extensive scoping conducted for the Draft EIS, the contents of the DOPAA were presented at each public and agency meeting, in the scoping brochure, and in the EIS newsletter.

PRO-007 COMMENT: We are concerned that the changes proposed by the Air Force will increase the noise levels around Harding Lake and seriously affect . . . our property value. Since the [Fairbanks] North Star Borough has determined that property values along the Salcha River have declined by about 15 percent because of noise pollution, what effect will increased flight operations have on property values on Harding Lake? And will the federal government compensate property owners for property value loss because of the willful actions of the Air Force?

Not only are the daily lives and pastimes of people affected, so are their pocketbooks affected by property values decreased as a result of overflight noise. In May 1993, the [Fairbanks] North Star Borough Board of Equalization (a tax appeal body) found that Salcha River property had declined in value approximately 15 percent as a result of jet aircraft overflight noise.

I consider the Military Operations Areas proposed by the Air Force for jet fighter training over substantial areas of Alaska to be a very significant "taking." It should be more than obvious to the Air Force that private land owners and tourist operations in remote areas are going to lose some of the peace and tranquility that they seek for themselves or their clients. If the Air Force continues with this proposal, it should be prepared to offer these private land owners and privately owned tourist operations with long-term compensation. Since the Air Force would be taking a public resource, it should also be prepared to offer compensation to the public-at-large for depriving it of the opportunity to enjoy these wilderness areas for recreational purposes. The Exxon Valdez settlement legally established the use of contingent valuation methodology to determine costs to the public for nonmarket values. In order to have an adequate EIS, the Air Force should undertake a contingent valuation study regarding the impact of the MOAs.

Historically, the placement of Electronic Combat equipment has led to future land takings. Will there be land grabs in the future, particularly the next 20 years?

RESPONSE: This comment raised concerns that property values at Harding Lake would be diminished because of increased noise levels as a result of the Air Force's proposal. It also raised a concern that enjoyment of the peace and tranquility of the recreation and wilderness areas throughout the state would be impaired. This

comment requested compensation for the diminishment of private or public property values. Additional concerns regarding aircraft noise impacts on wildlife are addressed in responses BIO-001 to BIO-014.

Harding Lake is a state-owned public recreation area. Certain parcels are privately owned. Overflights of residences in the Salcha River and Harding Lake areas will not rise to the level of a taking if the Air Force selects the Preferred Alternative (Alternative A—Modified), which moves the western boundary of the BIRCH MOA to avoid these areas.

Overflights by military aircraft may constitute a compensable taking of private property for an easement of the overhead airspace under the 5th Amendment to the United States Constitution if such flights are so low and so frequent as to be a direct and immediate interference with the use and enjoyment of the land. In takings cases involving overflights, "low" has generally been defined to be flights below 500 feet above ground level (AGL) [*Matson v. United States*, 171 F. Supp. 283 (Cl. Ct. 1959); *Davis et al. v. United States*, 164 Cl. Ct. 612 (1964); *Adams v. United States*, 680 F.2d 88 (Cl. Ct. 1981)]. A direct and immediate interference with the use and enjoyment of the land must occur to rise to the level of a taking. Generally, physical damage to the property or the owner of the property must occur. A diminution of the remoteness or tranquility of the land or area does not rise to the level of a taking. Takings law applies to private property and is not applicable to publicly owned property. These issues will be addressed in detail in the takings implication assessment required by Executive Order 12630 of March 15, 1988 (*Governmental Actions and Interference with Constitutionally Protected Property Rights*).

Neither the establishment of permanent MOAs nor any of the other proposed actions would significantly increase the frequency of flights at altitudes below 500 feet AGL. Under the Proposed Action and other action alternatives, military aircraft would be permitted to fly below 500 feet in some MOAs. In some circumstances, the Air Force would permit flights down to 100 feet AGL. However, flights below 500 feet AGL would not be conducted on a routine basis or so frequently as to constitute a taking. Routine military flight training at these altitudes would be less than 2 percent of all military flying activity that would occur in the MOAs (see Appendix E, p. E-16 to E-28). As explained in response PAN-001, flights are made at low altitudes to practice use of terrain to avoid detection by airborne and ground-based detection systems. Only the most experienced flight leaders and instructor pilots are eligible for training at altitudes below 500 feet AGL. Such training is conducted by a limited number of aircraft and only for a limited portion of the overall mission. Flights down to 100 feet AGL would be conducted over sparsely populated areas. In addition, upon receipt of complaints, the Air Force, as a matter of policy, considers whether it is practicable to relocate training flights to minimize potential noise impacts.

As to the claim that peace and tranquility will be diminished and the public at large should be compensated for deprivation of the opportunity to enjoy wilderness areas for recreational purposes, takings law only applies to private property. However, the Secretary of Transportation has certain responsibilities to protect publicly-owned land under Section 4(f) of the Department of Transportation Act. Section 4(f) applies to approval by the Secretary of Transportation of any transportation program or project that requires the use of any publicly-owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance or land of an historic site of national, state, or local significance as determined by the officials having jurisdiction. The FAA has considered the applicability of Section 4(f) in a separate document distributed with the Final EIS.

There are currently no proposals pending before the DoD that would result in the withdrawal of public lands for any purposes connected with the Alaska MOAs.

PRO-008 COMMENT: Please provide coordination with the Army, Navy, FAA, and affected states. Provide an Air Force airspace plan that defines, validates, and supports the proposed improvements to Military Operations Areas in Alaska. Does such a document exist? Can a copy be part of the EIS?

RESPONSE: The Army has reviewed and commented on the Draft EIS, and these comments will be addressed and incorporated in the Final EIS. The Navy has no installations in the Region of Influence. The FAA is a cooperating agency and has been and will continue to be closely involved, providing input to and oversight of the airspace proposal. The Alaska State Legislature passed a resolution in support of the Air Force's Proposed Action, which is part of the Administrative Record of the EIS.

DoD Directive 5030.19, *DoD Responsibilities on Federal Aviation and National Airspace System Matters*, tasked each of the military services to develop an airspace master plan to analyze current and projected airspace requirements, current airspace availability and adequacy, and external factors that influence DoD access to airspace. The *U.S. Air Force Airspace Master Plan*, initiated by the Air Force Flight Standards Agency, addresses Air Force airspace requirements in every area of the country and for every Major Command mission that has airspace needs (USAF 1993b). The standards it contains were used to formulate some of the criteria for evaluating alternatives considered in the EIS (see section 2.1.4 and Appendix N).

PRO-009 COMMENT: "Over the next decade, the Air Force must channel its resources to areas where the training environment is efficient, flexible, and cost effective (p. ES-1 of the Draft EIS)." Does this EIS explain all operations for Alaska during the next ten years? Are these code words for shifting more training to Alaska from the Lower 48?

What are the noise projections for the next 20 years? What is the expected future population for the next 20 years? Since there is no time limit on the proposed actions, this information must be analyzed.

RESPONSE: NEPA requires an agency to consider reasonably foreseeable actions and their outcomes. The EIS does so by addressing reasonably foreseeable training activities and airspace use. It analyzes the noise environment predicted on the basis of known and forecasted events, and identifies areas that might experience population increases based on applicable land use plans (e.g., the Fairbanks North Star Borough). Therefore, the noise analysis adequately captures the environmental impacts for the reasonably foreseeable future. The EIS also establishes sortie limits for the various MOAs by virtue of the number of sorties assessed. If Air Force needs should dictate significant changes (in number of sorties, type of aircraft, etc.), a supplemental EIS would be required by CEQ regulations. Specifically, a federal agency must prepare a supplement to an EIS if the agency makes substantial changes in the proposed action that are relevant to the environmental effects, or if there are significant new circumstances or information relevant to the environmental concerns that bear on the proposed action or its impacts [40 CFR 1502.9(c)(1)]. A supplemental EIS must be prepared, circulated, and filed in the same fashion as the original EIS, but the scoping process need not be repeated [40 CFR 1502.9(c)(4)]. Although CEQ informally advises agencies to carefully evaluate any EIS over five years old, the mere passage of time does not trigger the need for a supplemental EIS.

PRO-010 COMMENT: The Final EIS should address the extent to which the proposed action may disproportionately adversely affect human health and the environment among minority populations and low income populations, as directed by Executive Order 12898, dated February 11, 1994.

The EIS should address the extent to which the proposed action may disproportionately affect human health and the environment among minority and low income populations as directed by Executive Order 12898. In particular, the EIS should provide more detail on how the proposed project will impact subsistence activities and how these impacts will be addressed pursuant to the Executive Order.

Regarding subsistence, you are talking about people's livelihood. Level II and III impacts are predicted for the prime hunting season of August and September in Eagle Village, Dot Lake, Healy Lake, Circle, Eagle City, Chicken, and Lime Village. In previous talks with the Air Force, the people of Dot and Healy Lake were told low level flights would not occur over these areas. These are also all native villages, which raises possible discrimination issues.

RESPONSE: Executive Order 12898 (*Federal Actions To Address Environmental Justice In Minority and Low-Income Populations*) directs federal executive branch agencies to analyze, as part of the environmental impact analysis process required by NEPA, "disproportionately high adverse human health or environmental effects . . . on minority populations and low-income populations" An additional goal of Executive Order 12898 is to encourage and facilitate minority and low-income population participation in the formation of policies and the making of decisions affecting them.

From the early days of the EIS, Alaska Native organizations and Alaska Native and rural communities were briefed on the Proposed Action and Alternatives and actively consulted on issues of concern to Alaska Natives. The EIS identified potential significantly adverse impacts in two areas that might disproportionately affect the identified minority and low-income populations because of the geographic area potentially impacted and because of the importance of the resource to minority and/or low-income populations. Those areas are subsistence and recreation. The Preferred Alternative implements a combination of mitigations that result in a general decrease in the potential impacts upon subsistence and recreation. Any possible disproportionate effects upon minority and low-income individuals are, therefore, either eliminated or reduced from significantly adverse. (See section 1.7.3.5 and Appendix P.)

PRO-011 COMMENT: The purpose and need do not adequately address the military and civilian airspace needs together in terms of their overlap and conflicts which compromise air safety.

RESPONSE: Chapter 1 of the EIS (Purpose of and Need for Proposed Action) specifies the underlying purpose and need to which the agency is responding in proposing the alternatives, including the Proposed Action (40 CFR 1502.13). Guidelines for preparing NEPA documents suggest this chapter explain who wants to do what, where, how, and when; and why they want to do it. Chapters 2 and 4 explore the potential environmental consequences of implementing the Proposed and Alternative Actions.

PRO-012 COMMENT: This comment number is not used in the EIS.

PRO-013 COMMENT: Mitigation measures are not directly tied to these proposals but are to be left until after the Record of Decision is issued. This is bad policy and should be changed.

A specific discussion on the staffing requirements and other resources needed to implement the mitigation measures and monitoring proposed for each alternative should be presented.

RESPONSE: An agency need not present a detailed mitigation plan in the EIS itself or commit to implementing the mitigation measures discussed in the EIS [*Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 (1989)]. Rather, CEQ regulations stipulate that an agency identify in its Record of Decision (ROD) the mitigation measures it will adopt as part of implementing its Preferred Alternative. The mitigations outlined in the ROD must be described in sufficient detail to constitute an enforceable commitment; or, alternatively, the ROD can incorporate by reference the portions of the EIS that do so. The ROD must also include a monitoring and enforcement program for each mitigation measure, if applicable [40 CFR 1505.2(c)]. An agency's ROD can be used to compel compliance with or execution of the mitigation measures committed to. Finally, the ROD must indicate whether all practicable mitigation measures have been adopted, and if not, why not [40 CFR 1505.2(c)]. Accordingly, the Air Force's ROD will clearly delineate the mitigation measures selected and adopted as part of the Preferred Alternative, and include a mitigation and monitoring plan.

PRO-014 COMMENT: The Draft EIS is very clear that there is not enough information available to make conclusive statements about wildlife. In Vol. II, p. 4-88, it states that "Insufficient evidence exists to make conclusive statements regarding the effects of aircraft noise and sonic booms on populations of wild animals . . ." and on p. 4-89 it says that "Aircraft noise impacts on many of the topical areas of concern in this analysis have not been sufficiently studied . . . Effects on moose, black bears, wolves, and furbearers have only been hypothesized." There is no research on the effect of aircraft noise on subsistence.

More information is needed to show what impacts these training exercises will have on tourism, recreation, hunting, subsistence, and just lifestyle. More studies also need to be made on the environmental impacts of sonic booms; loud, low-flying jets; fuel jettisoning; and other jettisoned debris.

More research studies are needed to clarify impacts to the fowls, wild game, subsistence and human activities of the people within the Copper River Basin Region. Copper River Native Association would want to participate in the research studies, through either receiving funds to conduct a research study or to assist in the environmental impact study.

Since the impacts are cumulative, as stated in your EIS, it stands to reason that field studies to establish baseline data should have been undertaken during the previous four years and that the Air Force should be contributing to an ongoing monitoring effort.

RESPONSE: CEQ regulations (40 CFR 1502.22) stipulate that when an agency prepares an EIS and there is incomplete or unavailable information, the agency must make clear that such information is lacking and indicate the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant adverse impacts. The EIS must also provide a summary of existing credible scientific evidence relevant to evaluating such impacts. Finally, the EIS should evaluate reasonably foreseeable impacts using theoretical approaches or research methods generally accepted in the scientific community.

Predictions of effects were made with the most current and complete information available. The impact analysis tends toward the conservative side (e.g., noise analyses were run using maximum loading; any overflight of high-sensitivity recreation resources areas was predicted to have an adverse effect; etc.) to compensate for the unavailable or incomplete information noted in the EIS.

The Air Force supports, through a variety of programs and funding mechanisms, research on the effects of aircraft overflights, noise, and sonic booms on various natural and cultural resources. In Alaska, the Air Force has sponsored studies on the behavioral response and energy expenditures of caribou exposed to low-flying

military jet aircraft (Murphy et al. 1993; White et al. 1993). In the summer of 1995, the Air Force, in conjunction with the University of Alaska, the Institute of Arctic Biology, and the U.S. Fish and Wildlife Service, conducted studies on peregrine falcons and other birds of prey in Interior Alaska. These studies focused on the possible effects of overflights on the birds' nesting and reproductive cycles. In addition, three Interagency Coordination Teams comprised of representatives from the DOI (NPS, USFWS, and BLM), the State of Alaska (ADF&G and ADNR), and the Air Force have been established. The Research and Monitoring Team will concentrate on collecting data regarding potential effects of aircraft noise on wildlife, recreation, and subsistence. This data will be used to make decisions regarding the efficacy of mitigation measures and the need for additional mitigation.

The DoD also sponsors the Legacy Resource Management Program, which gives priority to identifying, conserving, and restoring natural and cultural resources. The program evaluates natural and cultural resources for their significance to such values as biodiversity and historic interpretation, and seeks projects to demonstrate more effective conservation techniques. The Legacy Program works through partnerships with federal, state, and local agencies and private groups.

2.15 Recreation Resources

REC-001 COMMENT: I help lead commercial wilderness trips in Alaska. What will be the effect of training on backcountry tourism? The EIS should include information on the number of commercial providers in the area, their activities, number of clients, and their fees. The economic analysis needs to include negative impacts on commercial recreation.

The Draft EIS fails to provide data on the economic impacts associated with lost revenue from tourists who may decide to go elsewhere to recreate. The Draft EIS ignores the probable financial loss to the State of Alaska from the loss of game hunter revenues. Including losses incurred by game guides, air taxi operators, hunting lodges, sporting good suppliers, and the associated service industries supporting these activities.

The adventure travel segment of the tourism industry is the fastest growing, at about 20 percent annually. Among the State's basic industries, tourism is the second largest employer in the private sector, and third largest in terms of payroll. As a legitimate commercial activity, recreation businesses have commodity interests that exist on Alaska's wildlands. The Draft EIS fails to recognize the importance of commercial recreation in local economies by limiting the economic analysis to Eielson and Elmendorf Air Force Bases.

RESPONSE: The EIS contains information regarding the locations of major commercial recreation attractions, types of commercial recreation activities, use levels, and seasons of operation (including peak periods by activity) in the Region of Influence (see section 3.6.7). Tourism and commercial outdoor recreation, including natural resource-dependent wilderness-based concerns, are clearly important to Alaska's economy, while the viability of individual operations is of obvious consequence to owners and staff. Visitors and residents alike pay several hundred to several thousand dollars for guided wilderness trips, depending on type, length, and location of trip; likewise, guided fishing trips can cost up to \$2,000 or more, and guided big game hunts can run upwards of \$12,000 and probably average \$6,000 to \$7,000. However, there is no evidence (empirical or theoretical) that recreationists, including tourists and other consumers of commercial recreation services, would decide to go elsewhere to recreate on the basis of implementation of the Proposed or Alternative Actions. In fact, in response to Public Law (P.L.) 100-91 (the National Park Overflights Act of 1987), the U.S. Forest Service (USFS 1992, 2-18) reported to Congress that "No statistically reliable relationships were found between annoyance due to the sight or sound of [aircraft] overflights and respondents' reported intent to revisit." Although visitors "judged low-flying jets and helicopters more annoying to hear than high-altitude jets and small private aircraft, . . . [w]ilderness visit enjoyment showed little relationship with annoyance due to the sound or sight of aircraft." Almost all respondents questioned in short- and intermediate-term studies reported their intent to return to the area, and no visitor, out of 2,020 interviewed, cited aircraft overflights or other aircraft issues as reasons for not returning. Other studies conducted for the U.S. Forest Service and the National Park Service (NPS) reaffirm these findings. For example, in a study of the intermediate term effects of aircraft overflights on Outdoor recreationists in twelve wildernesses, Tabachnick et al. (1994, 30) found "no statistically significant association . . . between intention to revisit and aircraft-induced annoyance."

The NPS, in its Report to Congress ". . . on Effects of Aircraft Overflights on the National Park System (1994, 6.6), concluded that only "[a]bout 2 to 3 percent of all visitors . . . can be expected to report impact from hearing or seeing aircraft overflights." However, "A higher percentage of backcountry than frontcountry visitors report hearing aircraft and are more likely to experience impact from these aircraft."

The NPS' recommendations for identifying sites for impact analysis and potential mitigation cite three important criteria:

- 1) Frequency of Overflights—How many overflights per hour occur regularly during periods of visitation?
- 2) Visitation Rates—How many visitors per hour or per day pass through the candidate site?
- 3) Recreational Opportunity—What are the important dimensions of the intended opportunity: unobstructed views, solitude, remote location, transportation access, etc.?

These criteria are very similar to the criteria used in the EIS to determine potential impacts to recreation resources. The EIS used: 1) a "sensitivity to impact" ranking, which was based on the degree to which noise resulting from aircraft overflight of any kind would be considered inconsistent with the recreation opportunity setting of an area, visitor use levels, and the percentage of the area located beneath a MOA(s); 2) the use and configuration of any existing overlying MOA(s); 3) the proposed use and configuration of any new MOA(s); and 4) the presence and effectiveness of any existing Flight Avoidance Area (see section 4.6.2 of the EIS).

Although wildernesses in Alaska were not considered in the studies undertaken for P.L. 100-91, as the most recent and comprehensive research available on the issue of potential impacts of aircraft overflights on wilderness areas, these studies are very applicable to the issues examined in the EIS and comprise the best information available on the subject.

All of the major commercial recreation resources identified in the Region of Influence fall into one or more of the following categories:

- 1) The Proposed and Alternative Actions represent either no change from existing conditions or a reduction in flying activity (e.g., Birch Creek National Wild River, Wood-Tikchik State Park);
- 2) There is an existing Flight Avoidance Area in place (e.g., Yukon River, Chena River State Recreation Area); or
- 3) The Preferred Alternative (Alternative A—Modified) would reduce or eliminate potential adverse impacts (e.g., Gulkana National Wild River; Fortymile National Wild, Scenic, and Recreational River).

Additional information has been added to the Final EIS to describe the scope and importance of commercial recreation in Alaska's economy. However, in light of the analysis and mitigation in the EIS and the fact that there is no evidence that recreationists would choose to go elsewhere to recreate on the basis of exposure to or knowledge of aircraft overflights, prediction of potential revenue losses is not warranted and would be highly speculative. Information gathered through the Interagency Coordination Teams for MOAs will also be used in the future to address the issue of potential impacts to recreation, including commercial recreation.

REC-002 COMMENT: The Draft EIS ignores recreational resources located in the urban areas which will be impacted by the proposed activities. These impacts cannot be ignored and must be addressed in the Final EIS.

RESPONSE: The Alaska Department of Labor defines "urban" as a place of 2,500 persons or more (ADL 1991). The only community with a population greater than 2,500 that would be located beneath a MOA is Eielson AFB (1990 population estimated at 5,251). Thus, by definition, the only "urban" area located beneath proposed or existing MOAs is Eielson AFB itself. The base cantonment area has a bowling center; recreation, sports and fitness, and youth centers; and arts and crafts, wood craft, and auto craft shops. Outdoor recreational facilities include three tennis courts, five ballfields, a one-half mile track, and six athletic fields. Implementation of the Proposed or Alternative Actions would subject these resources to slightly higher noise levels. Enjoyment of

outdoor recreational facilities would potentially be diminished, but the incremental increase in noise over existing conditions is not predicted to result in a significant adverse effect on recreation resources on Eielson AFB. Any potential impacts to indoor recreation resources would be mitigated by the Air Force policy of ensuring proper Noise Level Reduction measures in the design and construction or modification of all on-base buildings situated within the DNL ≥ 65 dB contours and by the energy conservation practices (e.g., insulation) employed to compensate for the extreme climate conditions of the region. Based on this, the EIS does not disclose any impacts to urban recreational resources from the proposed activities.

In other (i.e., non-urban) areas, FAA regulations (*FAR 91.119*) and *AFR 60-16* require a minimum operating altitude of 1,000 feet AGL over all towns and settlements. There are also existing Flight Avoidance Areas over many of the popular recreation resources and additional ones under consideration. Thus, recreational resources located in urban, semi-urban, rural, and wilderness areas have been considered in the EIS analysis.

REC-003 COMMENT: The evidence presented in the Draft EIS from very recent National Park Service and U.S. Forest Service studies indicates that most recreationists in wilderness areas in the Lower 48 are not annoyed by aircraft and that the noisiest aircraft (which include low-flying military jet aircraft) were the most annoying. But relatively few of the recreationists in these non-Alaska studies experienced low-flying military aircraft overflights, and the published studies do not directly address the question of how annoying low-flying military aircraft really are. Moreover, the studies do not address wilderness in Alaska which, in at least some cases, may be substantially different than those the NPS and USFS studied (degree of remoteness, wildness, and level of use). This may be important because, as Fidell et al. stated in *Short Term Effects of Aircraft Overflights on Outdoor Recreationists in Three Wildernesses* (1992, 49), their practice of "interviewing in wildernesses with relatively high visitor use might have lead to underestimation of overflight impacts." As a consequence, it is very uncertain what relevance the summaries of the Lower 48 studies have to the Alaskan situation. All characterization of the percent of people who would be annoyed based on this inadequate data should be deleted from the Final EIS.

What you are using as a Sensitivity Rating does not seem very fair. Areas you have rated as low or medium effects get significantly more recreational and tourist use than the rating would suggest. You need to develop better Sensitivity Ratings.

The Level III and Level II impacts on the recreational areas are apparently felt to be acceptable by the Air Force.

RESPONSE: The NPS, in its Report to Congress ". . . on Effects of Aircraft Overflights on the National Park System (NPS 1994, 6.6), concluded that only "[a]bout 2 to 3 percent of all visitors . . . can be expected to report impact from hearing or seeing aircraft overflights." However, "A higher percentage of backcountry than frontcountry visitors report hearing aircraft and are more likely to experience impact from these aircraft." The NPS' recommendations for identifying sites for impact analysis and potential mitigation suggest three criteria:

- 1) Frequency of Overflights—How many overflights per hour occur regularly during periods of visitor use?
- 2) Visitation Rates—How many visitors per hour or per day pass through the site?
- 3) Recreational Opportunity—What are the important dimensions of the intended opportunity: unobstructed views, solitude, remote location, transportation access, etc.?

These are very similar to the criteria used in the EIS to determine potential effects on recreation resources (see section 4.6.2). In the EIS, potential impacts were predicted based on the following:

- 1) A recreation area's sensitivity ranking, which was based on the degree to which noise resulting from aircraft overflight of any kind would be considered inconsistent with the recreation opportunity setting of an area, visitor use levels, and the percentage of the area located beneath a MOA(s);
- 2) The use and configuration of any existing overlying MOA(s);
- 3) The proposed use and configuration of any new MOA(s); and
- 4) The presence and effectiveness of any existing Flight Avoidance Area.

Impacts were generally defined as:

- 1) Level I (Negligible Impact): Level I impacts would be expected for any area subject to only occasional, short-term exposure to aircraft noise levels inconsistent with the area's recreation opportunity setting, which would not result in any alteration of the setting. Level I impacts were typically found for areas with a low sensitivity ranking and areas with a medium sensitivity ranking for which implementation of the Proposed or Alternative Actions would result in no change in frequency of overflight, type of aircraft, or single or average noise levels.
- 2) Level II (Adverse, but Not Significant Impact): Level II impacts would be expected for areas subject to frequent, but irregular short-term exposure to aircraft noise levels inconsistent with the area's recreation opportunity setting that would temporarily alter the setting. Level II impacts were most often found for areas with a medium sensitivity ranking and areas with a high sensitivity ranking for which implementation of the Proposed or Alternative Actions would result in no change in frequency of overflight, type of aircraft, or single or average noise levels.
- 3) Level III (Significant Adverse Impact): Level III impacts would be anticipated for any areas subject to regular, repeated, or continuous exposure to noise levels inconsistent with the area's recreation opportunity setting, which would permanently alter the setting. Level III impacts were found for areas with a high sensitivity ranking and no existing overlying permanent MOA.

The methodology used in the EIS assigns the greatest impact to high sensitivity (i.e., primitive and semi-primitive) recreation resources where mechanical sounds are not common. This approach is congruent with the findings and recommendations of the NPS report. Although wildernesses in Alaska were not considered in the NPS and USFS studies cited in the EIS, these studies have stood the test of rigorous agency and peer review and are the most recent and comprehensive research available on the issue of potential impacts of aircraft overflights on wilderness areas. As such, they comprise the best information available on the subject and are very relevant to the issues examined in the EIS. We are aware of no studies that have investigated potential impacts of aircraft overflights on wilderness or other recreation resources in Alaska.

The EIS predicted potential significant adverse impacts (Level III) for several recreation resources. The extent of area affected varied somewhat between alternatives, but in general, Level III impacts were assessed for the Fortymile National Wild, Scenic, and Recreational River system; portions of the Yukon-Charley National Preserve and the Charley National Wild River; the Gulkana and Delta National Wild Rivers; the proposed West Fork Area of Critical Environmental Concern; and trails along the Denali and Richardson Highways. Adverse effects (Level II) were also predicted for the Steese National Conservation Area, Birch Creek National Wild River, Walker Fork Campground, Taylor Highway, and portions of the Yukon-Charley National Preserve and the Charley National Wild River. The Air Force has identified and analyzed mitigation to address predicted adverse impacts, and these are described in the Final EIS (see section 4.12).

As a point of clarification, the information on percent of people who would be annoyed by aircraft overflights, presented in section 4.6.1 of the EIS, is a summary of the findings of the U.S. Forest Service report to Congress, *Potential Impacts of Aircraft Overflights of National Forest System Wildernesses* (1992). This information is not

intended to be extrapolated to characterize or predict the percent of people who would be annoyed by military aircraft activities under the Proposed or Alternative Actions.

REC-004 COMMENT: The analyses of potential impacts on recreational resources did not seem to note the importance of the Lake Louise/Tyone/Susitna vicinity as a recreational area. Besides the Lake Louise State Recreation Area, there are four commercially operated lodges and some 297 cabins or residences around the lakes (mostly around Lake Louise) that are predominantly used for recreational purposes. There is also a permanent population of 50 persons in the area. The lakes and upland areas in their vicinity are used recreationally year-round—with fishing, hunting, boating, and snowmachining being significant activities.

As the owner of the Maclaren River Lodge, I want to go on record as opposing the proposed change. The Denali Highway is one of the last pristine or near pristine areas in the state that is accessible to the general public and the pollution of such an area is unacceptable at best.

RESPONSE: The EIS identified numerous recreation resources under the proposed FOX MOA, including the Gulkana and Delta National Wild Rivers, the Denali Highway and associated trails and campgrounds, the Nelchina Public Use Area, and other areas used for recreation purposes such as the Tangle Lakes National Register Archaeological District and extensive BLM-administered lands (see Figures 3-50, 3-51, Table 3-6, and section 3.6.4.2). The EIS also recognized that general state lands under the proposed MOA "... support a wide array of recreational activities, including hunting and fishing, hiking, camping, skiing, mountain climbing, and snowmachining" (see section 3.6.4.2.2). Also noted were the lodges and/or recreation outfitters located along the Denali Highway as well as the lodges and recreation cabins located on lakes and rivers throughout the area under the proposed FOX MOA (again, see section 3.6.4.2.2).

Using a conservative methodology, the EIS predicted adverse impacts to a number of the resources that would be located beneath the FOX MOA. However, with a floor of 3,000 feet AGL for the Proposed Action, Alternatives A and B, and the No Action Alternative, neither the maximum single event noise levels (< 85 dB) nor the average noise levels (< DNL 55 dB) would automatically trigger a finding of significant adverse effect to recreational resources or land uses. Under Alternative A—Modified, the floor of the MOA would be 5,000 feet AGL, further reducing the maximum single event and average noise levels.

Under the Proposed Action, Alternatives A and B, and the No Action Alternative, Tyone Lake would be located at the extreme southern boundary of the FOX MOA (FOX 1 TMOA). Under Alternative A—Modified, Tyone Lake would be located at the edge of the southeast corner of the FOX MOA. Given the dynamics of high-speed flight, it is unlikely that military aircraft using the FOX MOA would be operating this close to the edge of the MOA. Lake Louise, Susitna Lake, and the Lake Louise State Recreation Area would be south and outside of the MOA boundary under all alternatives. Note, however, that Military Training Route (MTR) 937 traverses the southeastern section of the FOX MOA (see Figure 3-18). Although located 20 miles west and north of the lakes and communities mentioned, it is possible that residents of or visitors to areas west or north of Lake Louise may see or hear aircraft operating on this route.

REC-005 COMMENT: Knik Canoers and Kayakers finds the Draft EIS deficient in the scope of rivers and lakes addressed. Only those rivers designated wild, scenic, or recreational and those in federal and state preserves are considered. Waterways in eastern Alaska, such as Beaver Creek and the Chatanika, Nenana, and Susitna rivers are not discussed.

RESPONSE: Beaver Creek and the Chatanika River do not underlie any existing or proposed MOAs. The Nenana River, which heads at Nenana Glacier in the Alaska Range, flows beneath the proposed FOX MOA for approximately the first 25 miles. A popular put in is at a point 18 miles east of Cantwell where the Denali Highway closely parallels the Nenana River. This put in is just outside (west) of the MOA boundary. The upper portion of the Susitna (approximately 130 river miles) would underlie the proposed FOX MOA. Information describing this river and its recreation use has been added to the EIS. However, under Alternative A—Modified, the floor of FOX MOA would be 5,000 feet AGL, and adverse effects to this river or its use would be unlikely.

2.16 Aviation Safety

SAF-001 COMMENT: The F-16 aircraft is an aircraft whose record for safety is questionable. Please use it in unpopulated areas. The Final EIS should address the potential impacts and mitigation associated with a military aircraft that has crashed on Department of Interior (DOI) lands. The Draft EIS failed to provide accident potentials for all aircraft potentially utilizing the airspace. What is the probability of a mishap or crash occurring for the deployment of all types of aircraft in the DoD inventory, as well as similar allied aircraft? The F-16 and other aircraft are equipped with computerized weapons delivery systems. Have these systems played a role in the rash of F-16 crashes? Have the systems experienced problems that lead to increased accident potentials? What about F-16 accidents due to cracked wings? What is the increased accident potential for an F-16 when the wiring blows up? What precautions will be taken to assure no accidents threaten residents? Please expand the discussion of aircraft mishaps to include the potential mishap rates of all aircraft that could potentially be utilizing the proposed airspace structures.

RESPONSE: The potential mishap rates (based on 100,000 hours of flying per aircraft) for all aircraft currently using the airspace or expected to use it in the future have been incorporated in sections 3.2 and 4.2 of the EIS (see also Table 3-1). These statistics are based on all aircraft accidents, regardless of cause. Estimates of predicted Class A mishaps have been made based on nominal flying hours expected for aircraft based in Alaska and those deploying to the state for training exercises.

The impacts associated with military aircraft accidents could include: ground disturbance/displacement; localized fire; fuel release if fuel is not burned; hazardous material release, particularly hydrazine from F-16s; and loss of habitat, wildlife, and other resources in the immediate area. The maximum area affected by a mishap (crash) is estimated to be 8 acres, which is approximately the size of the area affected by the crash of a heavy bomber (USAF, U.S. Navy, and U.S. Army 1991).

The analysis conducted for the EIS indicates that aircraft mishaps affecting people, structures, or the environment would be extremely rare due to the infrequency of such accidents and, in the case of potential impacts to people or structures, the sparse development of most of the lands in the Region of Influence. In the event of an aircraft mishap, the Air Force would assist in any firefighting efforts as requested and per the Memorandum of Understanding between the Bureau of Land Management/Alaska Fire Service and the Air Force. Hazardous material in concentrations that could adversely affect human health or the environment would be removed or otherwise remediated in accordance with applicable Air Force accident response plans and state and federal regulations.

SAF-002 COMMENT: Please explain the safety impacts of aircraft using "minimum spacing arrival procedures."

RESPONSE: Minimum spacing arrival procedures are developed to expedite the recovery of large numbers of aircraft by utilizing predesignated arrival procedures (tracks, airspeeds, and altitudes). Minimum spacing arrivals allow the controlling agencies to direct flights of aircraft to intercept the routes at specific gates and continue with recovery of the aircraft with minimum instructions from the controlling agency and at reduced lateral spacing, if weather conditions permit. The use of minimum spacing arrival procedures does not adversely affect aircraft or aviation safety.

SAF-003 COMMENT: Has emergency response equipment and personnel been proven adequate for any potential accident?

Since "statistics show that 70 to 75 percent of all major accidents occur on or within 5 miles of a runway" (page 3-60 of the Draft EIS), the Air Force needs to address emergency response and preparedness measures and their costs with all appropriate surrounding governmental and other agencies. It is not clear if similar measures and associated costs are addressed for Eielson AFB and its neighbors.

RESPONSE: Mishap and disaster response plans (USAF 1994b; USAF 1993e; USAF 1993f) are in effect for Eielson and Elmendorf AFBs. The plans define and assign responsibilities for responding to mishaps on or in the vicinities of the bases. They provide guidelines to base organizations for responding to flight, ground, and weapons mishaps. In the event of an aircraft accident off-base, but in the vicinity of the base, local emergency response agencies may be the first agencies on the scene. Included in the base mishap response plans are provisions for coordinating with local emergency response agencies. These plans are reviewed annually and updated as appropriate.

SAF-004 COMMENT: What is the potential for "startle" related accidents on Alaska transportation systems? What is the location of these transportation systems, including, but not limited to, roads, airfields, and rail lines? What are the expected economic impacts to the State of Alaska if the state were held responsible for an incident involving military airspace use, such as recently occurred in Nevada? What is the potential that the startle effect of sudden noise can temporarily impair one's ability to function and reason? Depending on when and where this happens, the risk of accidents can increase dramatically. How many accidents are expected to occur?

RESPONSE: The main transportation systems underlying the MOAs would be portions of the Richardson and Alaska Highways (under BUFFALO and BIRCH MOAs). Overflights of these highways would occur at altitudes no lower than 500 feet AGL and at subsonic speeds. Lesser used highways include the Denali Highway (under the FOX MOA) and the Taylor Highway (under the YUKON 3 MOA). Mitigation being considered would raise the floor of FOX MOA to 5,000 feet AGL and the floor of the southeast portion of YUKON 3 MOA (overlying the Taylor Highway) to 2,000 feet AGL. No railroads would be located beneath existing or proposed MOAs. FAA policy provides that MOAs exclude the airspace up to 1,500 feet within a 3-nautical mile radius of any airport available for public use (FAA 1993).

Given the limited nature of Alaska's ground transportation system and the mitigation proposed for the Final EIS, our analysis indicates no significant adverse effect due to startle-related accidents. To attempt to estimate potential economic impacts to the State of Alaska would be unfounded speculation and would involve a worst case analysis, which is no longer required under CEQ regulations. Legal culpability and liability are matters adjudicated by our legal system based on the specific factors of an incident. Predetermination of liability is not only inappropriate, it is impossible. There is no evidence to suggest that startle effect, which may occur with the rapid onset rate of aircraft noise, would result in the type of impairment described.

SAF-005 COMMENT: A major concern also is the danger of military-civilian aircraft collisions. Many of us use the Harding Lake and Salcha River corridor to fly to and from Fairbanks and North Pole. Also, what about along the rest of the Alaska and Richardson Highways?

How is the "see and avoid" concept going to work in this airspace when aircraft are traveling at near the speed of sound?

In my opinion the FOX 1 MOA is a hazard to aviation safety and as such should not be allowed. The Air Force has not shown that it is able to handle itself in this airspace in a manner that allows those of us who work here to continue to fly safely.

How many near misses have there been back to 1983?

RESPONSE: The Air Force shares the same concerns about the potential for military-civil aircraft collision potential. To reduce potential conflict areas, the Air Force is considering several mitigations along the Alaska and Richardson Highways to provide corridors for VFR civil operations. One mitigation being considered is raising the floors of the BIRCH and FALCON MOAs to 500 feet AGL. The Air Force is also considering establishing civilian flight corridors in the proposed BUFFALO MOA and also, under Alternative B, the TANANA MOA. The first corridor would extend up to 500 feet AGL, 2 NM either side of the Alaska Highway and ½ NM either side of the Richardson Highway; the second corridor would be at 4,000 feet MSL to 6,000 feet MSL to protect the VFR hemispheric altitudes of 4,500 feet MSL and 5,500 feet MSL, 2 NM either side of the Alaska Highway and ½ NM either side of the Richardson Highway. By opening up these corridors for civil aviation, enhancing the effectiveness of the Special Use Airspace Information Service (SUAIS) to provide improved situational awareness along the highway corridor, and using the on-board radar capabilities of aircraft such as the F-16 and F-15, which are capable of detecting and tracking light aircraft at up to 10 miles (at nominal altitudes), flight risks can be minimized, although not completely eliminated. The Air Force is also considering setting the minimum altitude (floor) of the proposed FOX and YUKON 5 MOAs at 5,000 feet AGL rather than 3,000 feet AGL.

Examination of Air Force records on near misses, as far back as available, documents four near misses between Air Force and civil aircraft—two in 1991 and two in 1993. All of these incidents occurred in the traffic pattern at Elmendorf AFB. Anecdotal information received at scoping meetings and public hearings alluded to "close calls" between Air Force and civil aviators; however, none were filed with the Air Force.

SAF-006 COMMENT: The DOI is concerned about the increased midair collision potential in the vicinity of Denali National Park and Preserve due to increased civil air activity during the May through August time frame.

RESPONSE: The floor of the SUSITNA MOA is already 5,000 feet AGL or 10,000 feet MSL, whichever is higher, and would not be lowered under any alternative. Consultation with flightseeing and air taxi operators indicates that their operations generally occur well below that altitude. Additionally, the Air Force has recently directed the slow-speed (less than 250 knots) training operations of the A-10s within the existing MOA structure to the east of the YUKON 1 and 2 MOAs, which should further enhance aviation safety within the vicinity of Denali National Park and Preserve.

SAF-007 COMMENT: We do not understand how bird strike hazards could be adequately evaluated with considering specific flight paths within the MOAs. Increases in bird strikes with waterfowl are imminent with increases in the number of sorties operating at low levels.

RESPONSE: The assessment of potential bird aircraft strike hazards was performed using a statistical computation. Actual bird distribution data relative to bird types, location in the area, time of the year, and time of the day form

the initial information needed to determine probable bird locations. Next, the actual MOA boundaries are input, and the probability of an aircraft flying in a MOA at various altitudes is predicted; subsequently the probability of a bird aircraft collision is computed. These raw determinations were then categorized according to their bird strike hazard intensities in the form of a warning, caution, or note, as described in the Final EIS, Volume III, Appendix H, for each airspace parcel considered in the EIS. Bird aircraft strike hazard potential can be found for each MOA/TMOA discussed in the Final EIS in the tables in Appendix H.

SAF-008 COMMENT: This comment number is not used in the EIS.

SAF-009 COMMENT: The Draft EIS failed to address the following scoping comments: Describe the F-16s and all military equipment vulnerability to Hazard of Electromagnetic Radiation to Ordnance (HERO). In fly-by-wire incidents, unexpected electromagnetic interference (EMI), either from the aircraft's own electronics such as radio or radar systems or from civilian or military external sources, will overpower the electronic flight control systems, thus causing the pilot to lose control and crash. What other military external sources exist? Electronic warfare, radar, and other equipment must be mapped to assess impacts. What other equipment is in the State of Alaska that could potentially cause a HERO accident? What is the potential for a HERO accident to occur in the proposed airspace? Will there be additional land needed? If so, where? Is "Kapton" wiring used in the F-16 which is proposed to be flown in the proposed airspace? What is the increased accident potential for the F-16 and the associated HERO accidents?

RESPONSE: There are no documented incidents of externally induced electromagnetic interference (EMI) being a primary cause of a major mishap involving the F-16. In fact, there is little evidence that EMI has any effect at all. Due to the sensitivity of some of the electrical circuits, false indications of a failure occurring in one of the flight control systems can occur. This possibility is dealt with in Air Force *Technical Order (T.O.) 1F-16A-1*, which explains that flight in the vicinity of some high-frequency transmitters may cause a false indication of a Flight Control malfunction (illumination of the P, R, and/or Y malfunction indicators). However, the indication should reset after the aircraft departs the EMI area.

Kapton insulation on some of the wiring used in the F-16 has the potential to degrade with use and excessive exposure to harsh environments. When the insulation degrades, and two or more wires are exposed, arcing can take place. Damage and impact to the aircraft would depend on what wiring bundle was affected and how extensive the damage from the arcing. All wiring bundles are inspected regularly to detect any possible damage from chafing and/or degradation. Those areas of the aircraft where Kapton-insulated wiring is most vulnerable to harsh environmental effects are examined frequently for possible replacement of the wiring with wiring less susceptible to environmental degradation.

In assessing the safety risks associated with the F-16 aircraft, the mishap rate used in the EIS accounts for all mishaps involving the aircraft, regardless of the cause. If there are any risks associated with Kapton-insulated wiring, they are reflected in the safety analysis.

2.17 Socioeconomics

SOC-001 COMMENT: The Socioeconomic Section is also inadequate. These extra personnel will generate public service costs as local experiences with training exercises such as Brim Frost have demonstrated. These personnel will be unattached with no community ties and no supervision beyond the bases. Damages to apartments have been costly; rowdiness with resulting increases in assaults has required increased public health and safety measures.

What will be the economic costs of current and potentially necessary increases of police, fire, hospital, and other services? Additionally, the Draft EIS claims that transient personnel will spend an average of \$60 per day in the local communities. This claim seems excessively high and quite unbelievable. We suggest that you go back to the drawing board and substantiate this claim with some hard facts since these claims are not substantiated. Do military personnel have this kind of money to spend?

RESPONSE: Most deployed personnel are housed on-base; when this is not possible, they stay in local hotels rather than apartments due to the short duration of their deployment. Medical needs of deployed personnel are handled by medical facilities on-base. There is no indication that personnel deployed to Eielson and Elmendorf AFB increase public service costs or present an economic or social burden to the communities they visit. Nor have the local governments, service agencies, and businesses in Fairbanks and Anchorage expressed any concerns to the Air Force regarding the presence of deployed personnel.

According to the Travel Pay department of the 354 FW Comptroller Squadron, per diem rates for Air Force personnel deployed to Eielson AFB (the base to which the majority of MFE participants deploy) are \$165.00 per day during the summer (May 15 to September 15)—\$59.00 for meals and \$106.00 for lodging; and \$123.00 per day during the winter (September 16 to May 14)—\$55.00 for meals and \$68.00 for lodging. We have revised the text in section 4.10 of the EIS to use the most conservative \$55.00 figure for MFE personnel meal and sundry expenditures.

SOC-002 COMMENT: The Draft EIS fails to consider the potential economic impacts of the proposal to the future growth of commercial airlines.

RESPONSE: The FAA, a cooperating agency, has made clear its concerns regarding commercial aviation of all types within the Region of Influence. Additionally, the Air Force consulted extensively with various civil and commercial aviation organizations in Alaska during preparation of the EIS. The comments and concerns of the FAA, the Alaska Department of Transportation (ADOT), and aviation groups were taken into consideration in the impact analysis in the EIS and influenced the development of the Preferred Alternative (Alternative A—Modified).

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2.18 Subsistence Resources

SUB-001 COMMENT: Associated costs and impacts to subsistence are not quantified. Mitigation measures address only hunting, not trapping and gathering activities, nor community and spiritual values. What studies did the Air Force review to conclude "there are no foreseen or conceivable impacts resulting from aircraft overflights that would adversely affect fish resources"?

I also used to live in Tok from 1990 through 1992. I know how scarce the game available to local subsistence hunters is, and feel sonic booms in these areas can adversely affect caribou herds and the moose population. The affected game represents an indispensable cultural resource to the Athabascans in these regions. The cash economy is so marginal in the upper Tanana and Yukon basins that much of the populace simply cannot live healthy lives without available wildlife resources.

The text should clarify the distinction between the Level II and Level III impacts to subsistence/resources located under the YUKON 1-5 MOAs. For example, the Draft EIS states that there are Level III impacts only in the YUKON 3 MOA and during MFEs. It should be clarified why the YUKON 1, 2, 4 and 5 MOAs would not be similarly affected and why there would be Level III impacts only during MFEs. It is not clear that the subsistence users of the YUKON 1-3 MOAs outside Eagle, including the people on the rivers, have been adequately considered, or that heavy subsistence use along the Black River has been assessed. It is our opinion that Level III impacts would apply to Eagle City, Eagle Village, and the Black River drainage. The Air Force should strive to reduce the impact level to I for all subsistence users, including those living along the river (who are not affiliated with a community, but are probably the most sensitive of all). Denali National Park and Preserve is mandated under ANILCA (1980) Sections 202(3)(a) and 801(4) to "provide the opportunity for continued subsistence uses on the public lands. . . by rural residents" on those lands added to the former Mount McKinley National Park. Page 4-132 [section 4.7.6.1 of the Draft EIS] indicates that a Level I impact is anticipated for subsistence hunters who utilize moose and caribou under portions of the SUSITNA MOA between the Tokositna and Yentna drainages from August 10-October 31 and December 1-February 28 of each year. Aircraft travelling at subsonic and supersonic airspeeds can frighten or startle wildlife, making the subsistence hunters' opportunities for harvesting wildlife more difficult. The Final EIS should address: 1) whether subsistence hunters are likely to move to areas unaffected by military overflight and thus increase competition there for subsistence resources, and 2) whether Air Force activities would impact customary and traditional harvest periods (seasons) or means and methods for taking subsistence resources.

It is hard to believe that the analysis of impacts to subsistence fails to consider fishing and trapping activities. These are the lifeblood of rural residents along the Yukon River and throughout the Interior region. Harm to subsistence has socioeconomic costs, as well as cultural impacts.

The authors assumed that "80 percent of the subsistence use for a given community occurred within a 30-mile radius of that community," yet fail to explain how they arrived at this determination. We are unaware of the authors having consulted with Division of Subsistence staff before arriving at this conclusion. While the 80 percent/30-mile radius may be a valid assumption in quantitative terms, it is potentially deficient in other respects. For example, certain use areas located outside the 30-mile limit may be the primary locations used by particular individuals or family groups and may be the principal areas used for harvesting particular resources.

RESPONSE: As explained in the Draft EIS (see section 4.7.2), impacts to subsistence were determined by:

- 1) the degree to which resource availability (identified wildlife populations) would be diminished as a result of implementing the Proposed or Alternative Actions;
- 2) the level and type of subsistence use in the affected region; and
- 3) the presumed degree of sensitivity of the subsistence user (identified in section 3.7).

The primary effect of military aircraft overflight would be noise/visual intrusion potentially causing wildlife to react, and thereby possibly affecting subsistence hunting success and level of effort. Assessment of potential impacts to wildlife was based on the analyses of noise effects on wildlife presented in sections 3.5 and 4.5 of the EIS. It was assumed that an alternative would have the same impact on all communities that use a given area for subsistence. Therefore, the sensitivity of a community to impacts ultimately determined the significance of the potential impact. Impacts in the EIS are described in terms of: primary subsistence use area; species of primary importance; the anticipated change in availability of species of primary importance; the timing of anticipated impacts relative to critical hunting periods; and the level of anticipated impacts in relation to the sensitivity ranking of communities.

There is no standard methodology available for determining the potential effects of aircraft overflights on subsistence. In light of this, the EIS ranked the communities likely to be affected by the Proposed or Alternative Actions according to their present sensitivity to any potential impacts to their subsistence resources or activities. This ranking was developed using the following factors:

- 1) Is the majority of a community's subsistence use area under a given MOA (i.e., is it within the area that would be affected by noise from aircraft overflights)? It was assumed that the more subsistence use area under a MOA(s), the greater potential impacts could be.²
- 2) Is the community predominantly Alaska Native? Alaska Native communities are likely to have higher sensitivity to any impact due to reduced employment opportunities and increased importance of harvest, and due to kinship and other forms of sharing and economic/social dependence that increase impact. This also considers social/cultural effects due to potential disruption to subsistence.
- 3) What employment opportunities are available to offset disruption and the cost of food replacement?

Answers to these questions resulted in community rankings of high, medium, or low sensitivity. For more information, see section 3.7.2.

Using this methodology, potentially significant adverse effects (Level III) to some communities were identified and adverse (Level II) or negligible effects (Level I) to others under the same or adjacent MOAs. This occurred for several reasons: 1) different communities under the same MOA could be assigned different sensitivity rankings, 2) the floors of some proposed MOAs are higher (3,000 feet AGL for YUKON 5), or 3) some communities or their majority use areas are located under existing permanent MOAs for which no change is proposed (e.g., sortie numbers would not change or would decrease, floors would not change or would increase,

²As an initial visual aid for identifying probable majority use areas, 30-mile radiuses were drawn around each community located beneath or near a MOA. The 30-mile figure was based on information in the literature (including mapped subsistence use areas), consultation with agencies and subsistence users, and federal and state criteria for determining customary and traditional use—all of which suggest that subsistence users do not harvest resources outside their traditional harvesting areas, which for practical purposes are usually as near as possible to their residence. While subsistence users may travel long distances to harvest certain resources, the average distance travelled, given available time and transportation methods, was estimated to be 30 miles. However, the primary means for determining a community's majority use area was the information obtained from ADF&G Division of Subsistence technical papers and Regional Habitat Guides; the ADCRA Community Database; ADL population and demographic reports; management plans from state and federal agencies; and the communities themselves (see Appendix J.)

etc.). MFEs were singled out because it would be during an MFE that repetitive overflights would be more likely to occur, possibly disturbing wildlife and thus increasing the level of effort required to harvest subsistence resources (see section 4.7.3). The methodology presumes that rural, and to an even larger degree Alaska Native, residents have greater dependence on subsistence resources and activities. The EIS addresses potential impacts at the community level as there is inadequate data and no methodology to enable impact assessment at the individual level (such as for individuals living along the Black River drainage). The Air Force is considering, however, mitigation that would raise the floor of the YUKON 5 MOA to 5,000 feet AGL and restrict its use to MFEs only—actions that would have a mitigating effect for subsistence along the Black River. As stated in the EIS (see section 4.7.6.1), the floor of the existing SUSITNA MOA is already at 5,000 feet AGL, and the proposed use of this airspace is less than current use levels.

The Air Force believes the methodology addresses whether subsistence hunters are likely to move to areas unaffected by military overflight and whether Air Force activities would impact customary and traditional harvest periods or means and methods for taking subsistence resources. Note that consultation with village residents, the Tanana Chiefs Conference, and the Council of Athabascan Tribal Governments has not revealed any evidence or indication that subsistence harvest areas or traditional harvest methods have been altered to date due to the presence or use of the permanent MOAs or temporary MOAs (TMOAs).

The EIS looked only at potential impacts to subsistence hunting. Fishing and trapping activities were not considered for the following reasons:

- 1) adverse impacts to furbearers (trapping resources) or fish were not anticipated under any of the alternatives (see sections 3.5 and 4.5); and
- 2) access to subsistence use areas (by ground or air) would not be restricted under any of the alternatives (see section 4.2).

The EIS noted that a variety of furbearers are distributed throughout Alaska. Lynx, beaver, river otter, marten, mink, and wolverine were included in the analysis because of their economic importance for trappers and hunters (see section 3.5.2.3.11). The EIS concluded (see section 4.5.1.3.11) that "Furbearer populations would likely be most susceptible during life-cycle phases associated with reproduction, but even during these phases, the habits, habitats, and population characteristics of furbearers would make notable impact by aircraft noise unlikely. All furbearers in question are abundant and widely distributed in the state and, thus, not vulnerable to important population-level impacts." Subsequent comments have not revealed information that disputes this finding. To determine whether or not adverse impacts were likely to occur to fish resources, a number of studies were examined, including the *Effects of Aircraft Noise and Sonic Booms on Domestic Animals and Wildlife: A Literature Synthesis* (Manci et al. 1988) and the U.S. Forest Service's *Report to Congress: Potential Impacts of Aircraft Overflights of National Forest System Wildernesses* (USFS 1992), which concluded that:

The literature on the effects of noise on fish is confined almost exclusively to the effects of waterborne noise. Although fish are regarded as susceptible to noise effects, the evidence is weak. Anecdotes about the effects of airborne noise should be regarded very skeptically, since sound is greatly attenuated at the air-water interface. Since the displacement component of waterborne sound is an important determinant of noise impacts on larvae and eggs, the physical effects of aircraft noise are likely to be minor.

Fish do startle in response to aircraft noise and probably to the shadows of aircraft as well. None of the short-term studies reviewed has shown any adverse effects from these responses. Fish can habituate to sounds and learn to distinguish harmful from benign noise exposure.

In 1994, the National Park Service found that "Generally, fish have not been considered at risk from aircraft disturbances. Because most fish and other aquatic organisms live entirely below the surface of the water, they

do not experience the same sound levels that terrestrial animals do" (NPS 1994, 5.4). Where appropriate, the source documents cited in these reviews and other studies were also examined.

The EIS predicted potential significant adverse impacts (Level III) for the communities of Eagle Village (YUKON 3 MOA), and Dot Lake and Healy Lake (BUFFALO MOA) during MFEs conducted in August or September. Adverse effects (Level II) were predicted for the communities of Circle (YUKON 2 MOA), and Eagle City and Chicken (YUKON 3 MOA) during MFEs or surge exercises conducted in August or September. Adverse effects were also predicted for Lime Village, Red Devil, Stony River, and Sleetmute (STONY A and B MOAs) during surge exercises or routine training in August, September, April, or May. The Air Force has identified and analyzed mitigation to address predicted adverse impacts, and these are described in the Final EIS (see section 4.12). See also the response to PRO-010.

SUB-002 COMMENT: What will be the specific impacts to spiritual and ceremonial sites, disruption of or intrusion upon ceremonial activities? Do Natives in the region of influence observe meditation, prayers, or ceremonies that could be disturbed by the proposed action? What happens if these activities are disturbed? Are there sacred locations—both on and off any reservations—where holy people or other entities may be affected? What impacts will the proposed action have on the American Indian Religious Freedom Act?

American Indians experience military overflights and sonic booms in greater proportion to their numbers. What will be the adverse impacts to any reservations or traditional Indian lands? Do Native Americans have sovereignty and jurisdiction of traditional use of Indian Reservation airspace?

In what ways have the DoD activities affected the peace of mind of the elderly, children, or others living in the area? What kinds of concerns have these people mentioned?

What will be the impacts to the tribe's legitimacy, political credibility, and corporate/economic viability if the proposed action is approved?

RESPONSE: During the course of the EIS, the Air Force held numerous public meetings and hearings in rural and Alaska Native communities and with various Alaska Native organizations and community representatives (see section 1.5, Chapter 6, and Appendix A, Table A-1). No spiritual or ceremonial sites were identified, nor were concerns expressed regarding potential impacts to such sites. Rather, where concern was expressed, it focused on potential impacts to subsistence resources and activities. Alaska Natives' political, cultural, and religious practices differ in many ways from those of Native Americans in the Lower 48. According to Mr. Will Mayo, President of the Tanana Chiefs Conference (a nonprofit consortium of Interior Alaska tribal governments), "What we call 'subsistence' was, and is, the very foundation of Native religious belief systems developed over countless generations and embodied in the simple exercise of gathering food." Thus, impacts to American Indian culture are directly related to the potential for adverse effects to subsistence resources or activities. The EIS assesses the probability of impacts to subsistence, and where potentially significant adverse effects were revealed, the Air Force has identified mitigation measures to address them.

The Indian Reorganization Act of 1934 (June 18, 1934), which was extended to Alaska in 1936, included the authority to create reservations, and six had been established by 1946. However, in 1971, the Alaska Native Claims Settlement Act (ANCSA), as amended, ". . . revoked all previous reservations (except the Tsimshian reservation on Metlakatla [in Southeast Alaska])." There are no reservation lands within the Region of Influence.

Congress, through the Federal Aviation Act of 1958, as amended, charged the Federal Aviation Administration (FAA) to administer the airspace in the public interest to ensure the safety of aircraft and the efficient use of airspace. The FAA is required to give full consideration to the requirements of national defense and of

commercial and general aviation, and to the public right of freedom of transit through the airspace. As national policy, preservation of the navigable airspace for aviation purposes receives primary emphasis.

Conclusive studies indicating adverse health impacts on children or the elderly resulting from low-altitude aircraft overflights of the frequency, duration, and noise levels likely to occur with implementation of the Proposed or Alternative Actions have not been identified. The methodology used in the EIS to assess impacts to land use takes into account potential annoyance stemming from such overflights and is, presumably, a measure of potential impact on peace of mind as well.

It is not plausible that implementation of any of the alternatives would have any effect on a tribe's legitimacy, political credibility, or corporate or economic viability. Further, the establishment or use of airspace does not challenge tribal sovereignty, suppress or deny Indian religious practices and access to sacred sites, or threaten the quality of family life.

SUB-003 COMMENT: The description provided in section J.4.3 incorrectly states that data are unavailable on the general patterns of subsistence for Tok. In fact, the Marcotte et al. 1991 source cited for Tanacross and Dot Lake contains similar information for Tok.

RESPONSE: The profile for Tok has been revised to include information from the Marcotte (1991) report, which was inadvertently omitted from the Draft EIS. However, this information does not alter the sensitivity ranking assigned this community (low) or the predicted impact level (negligible).

SUB-004 COMMENT: The authors incorrectly characterize the state subsistence regulations as applying only to rural and Alaska Native residents. Under current state law, all Alaska residents are potential subsistence users. Subsistence also is the priority consumptive use of federal public lands and of lands presently under state management jurisdiction.

RESPONSE: The following text has been added to the Final EIS at section 3.7.1. But note that rural and Alaska Native residents are presumed to have greater dependence on subsistence resources and activities for the purposes of impact assessment.

On December 2, 1980, Congress passed the Alaska National Interest Lands Conservation Act (ANILCA), which recognized the importance of subsistence use of fish, wildlife, and other consumptive resources. Title VIII of ANILCA provides for the continued opportunity for customary and traditional uses of fish and wildlife resources on public lands by residents of rural Alaska. The State of Alaska was allowed to continue managing fish and wildlife on federal public lands for subsistence purposes if the State had a subsistence law that was consistent with Sections 803, 804, and 805(d) of ANILCA. In anticipation of the passage of ANILCA, the State passed a subsistence law in 1978, which the Secretary of the Interior subsequently found to be consistent with ANILCA. In 1984, a suit was filed in state court challenging the constitutionality of the Alaska law (specifically, its granting of a subsistence priority based solely on residency). In December of 1989, the Alaska Supreme Court found the rural preference provision of the State's subsistence law to be unconstitutional under Section 258 of the Alaska State Constitution (*McDowell v. Alaska* 1989). As a result of the 1989 McDowell court decision, all Alaska residents qualify as subsistence users. There is no rural preference for subsistence use on state lands. Alaska residents may harvest resources on state (and some local and private) lands in accordance with Alaska State Hunting Regulations, which govern recreational, subsistence, and commercial uses of Alaska's wildlife. On federal public lands, however, subsistence harvest is only permitted: 1) by residents of rural communities

determined to have customary and traditional use of the resource, or 2) where no determination has been made, by all rural Alaska residents (residents of certain non-rural communities are specifically excluded).

Residents of the following communities do not qualify as rural Alaska residents:

- Adak
- Municipality of Anchorage
- Fairbanks North Star Borough
- Homer area (including Homer, Anchor Point, Kachemak City, and Fritz Creek)
- Juneau area (including Juneau, West Juneau, and Douglas)
- Kenai area (including Kenai, Soldotna, Sterling, Nikiski, Salamatof, Kalifornsky, Kasilof, and Clam Gulch)
- Ketchikan area (including Ketchikan City, Clover Pass, North Tongass Highway, Ketchikan East, Mountain Point, Herring Cove, Saxman East, and parts of Pennock Island)
- Seward area (including Seward and Moose Pass)
- Valdez
- Wasilla area (including Palmer, Wasilla, Big Lake, Houston, and Bodenbutte)

SUB-005 COMMENT: The sections called Subsistence Resources (sections 3.7 and 4.7) is a classic example of a report written by people with NO understanding of the subject. It is interesting that no villages not located directly under a MOA are listed. Fort Yukon, Birch Creek, Canyon Village, Old Crow, and Chalkyitsik are conspicuously absent. I guess the Air Force is not aware how far people must go to hunt for food. They also don't seem to understand how changing a migration path can affect other villages like Arctic Village, Venetie, or Christian Village in determining whether animals pass near them or not. It is very evident the Air Force is not competent to write this section of the report.

RESPONSE: Fort Yukon, Birch Creek, and Chalkyitsik were considered in the analysis of potential impacts to subsistence, as were Arctic Village and Venetie (see sections 3.7.3 and 4.7.4). The Draft EIS ranked the communities of Fort Yukon, Birch Creek, Arctic Village, and Venetie as low sensitivity based on the determination that the majority of their subsistence use areas would not be located under any of the MOAs. In addition, populations of critical subsistence species (moose and caribou) are stable or increasing in the region. Scoping and data collection failed to reveal any indication that the subsistence resources or activities of these communities have been affected by the presence or use of the existing YUKON 2 MOA, and the floor of the proposed YUKON 5 MOA would be 3,000 feet AGL. Although the Draft EIS recognized that some residents of these communities may engage in subsistence activities under the YUKON 2 or proposed YUKON 5 MOAs, these factors combined to result in a prediction of negligible (Level I) impacts to these four communities. Although Chalkyitsik was found to have a majority of its subsistence use area under the proposed YUKON 5 MOA (and, therefore, was accorded a medium sensitivity ranking), the same factors of stable or increasing moose and caribou populations and high MOA floor resulted in a prediction of Level I impacts for this community as well.

Christian Village (located on the Christian River, 50 miles northwest of the YUKON 5 MOA), Canyon Village (located on the Porcupine River, 35 miles north of the YUKON 5 MOA), and Old Crow (also located on the Porcupine River in the Yukon Territory, Canada, 70 miles northeast of the YUKON 5 MOA) were not addressed individually in the Draft EIS. The literature review and data collection for the Draft did not produce any information or concerns specific to these communities, nor did the extensive consultations with state and federal agencies and other Alaska Native communities and organizations. Scoping meetings and public hearings were held in the communities of Chalkyitsik, Fort Yukon, Venetie, and Arctic Village, and copies of the Draft EIS were placed in each of these communities to facilitate review and comment during the 90-day public comment period. In the absence of any indication that the communities of Christian Village, Canyon Village, and Old

Crow somehow differ in their patterns of subsistence use, the EIS analysis relied on information obtained from publications such as Caulfield (1983) and through the scoping and public comment process. Although not necessarily the final arbiter of population data, the 1990 census indicated a population of zero for Canyon Village and did not list Christian Village (ADL 1991).

The following communities were included in the analysis of potential subsistence impacts: Circle, Central, Eagle City, Eagle Village, Chicken, Chalkyitsik, Fort Yukon, Birch Creek, Venetie, Arctic Village, Delta Junction, Healy Lake, Dot Lake, Skwentna, Talkeetna, Trapper Creek, Upper Petersville Road, Paxson, Gakona, Gulkana, Tanacross, Tok, Chistochina, Koliganek, Lime Village, Napamiute, Red Devil, Sleetmute, Stony River Village, Chuathbaluk, Lake Minchumina, McGrath, Nikolai, Ruby, Takotna, Telida (see Appendix J).

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CHAPTER 3

CODED COMMENT LETTERS AND HEARING TRANSCRIPTS

Comment letters and verbatim transcripts from the public hearings are reproduced in this chapter. Three-digit accession numbers appear in the upper right-hand corner of each letter and transcript, which are arranged sequentially by accession number. The letters and transcripts have been annotated with alpha-numeric codes along the margins, which correspond to the comments and responses found in Chapter 2.

Public hearings held in smaller communities were recorded by a member of the IDT and later transcribed by a court reporter. Because of the informal nature of hearings in these smaller communities (i.e., attendees coming and going, preferring to speak without using a microphone, etc.), transcripts from some of these meetings contain a number of "unintelligibles." Consequently, a member of the IDT listened to each tape and, where possible, deciphered the unintelligible remarks. However, some transcripts still contain unintelligible words or phrases.

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October 16, 1994

11th AF EIS Team
5800 G Street, Suite 203
Eielson AFB, AK 99506-2150

Dear Team:


Without having read the full Draft EIS re "Improvements" to MOA's in Alaska, I do have an opinion (which in light of past experience I suspect will be ignored) re the Level II category.

Your use of the phrase "minor reduction or displacement...of wildlife populations" concerns me. The word "minor" particularly irritates me since it is so highly subject to human interpretation. And I personally distrust military interpretation when it comes to wildlife populations. Could you please send me a detailed explanation of how you arrived at this definition?

Further, if you are going to retain your definitions (and I have no doubt that you will), then I highly recommend moving the following to the more protective Level III category of Impacts: Peregrine falcon nest sites; Caribou critical-season habitat; Dall sheep general habitat; Brown bear critical-season habitat; and caribou-dependent wolf habitat.

Please reply ASAP. Thank you.

Yours sincerely,


Frank Keim
Box 54
Marshall, AK
99585

BIO-007

To Whom It May Concern:

I am writing in regard to the establishment of MOA "Fox" and to voice my dissent.

My primary concern is the safety issue.

I am a resident of the area and know firsthand the popularity that region for civil aircraft--both private and commercial air taxi. The area is a popular hunting and fishing area whose access is primarily by airplane. Many residents in the area own their own airplane and use it to enjoy the abundant recreational opportunities that an airplane affords. Also, a lot of people from Anchorage and the surrounding area use one of the many air taxi services available to enjoy the same opportunities.

I have read the Environmental Impact Statement you put out and that also ~~says~~ mentions concern over the danger of mid-air collisions between low, fast flying military aircraft ~~with~~ ^{and} private aircraft. In fact it gives it a level 3 impact; the highest level in the report.

Oct. 12, 1994

002

②

In a time of military cut-backs, it's hard to understand the need to expand the MOAs. Surely there are MOAs already established that could be used. And even if one needed to be created, why put it in one of the most popular recreational areas of the state? Galena sits out there in a remote area with an air base already established, and which could be reached from either Anchorage or Fairbanks. The people affected in that area would be far fewer than in "Fox".

Looking at a map of the military airspace in Alaska shows a disproportionate amount of the airspace is in east-central Alaska. How about spreading the burden around? Or better yet, go out over the ocean where nobody will be affected.

In conclusion I would like to say that nobody likes to listen to jets roaring by; especially people who moved to "The Last Frontier" to get away from that kind of thing. The kind of

PAN-001

ALT-002

002

③

people who live in the proposed "Fox" MOA. If you had to choose an area for an MOA, I would think you would choose an area that would affect the least number of people and the least number of wildlife. And the proposed "Fox" MOA is not that area. Thank you for your time.

Sincerely,

~~Kurt Skoog~~
Kurt Skoog

Mile 148 Glenn Hwy.

Mailing address: 3605 Arctic Blvd. #2880
Anchorage, AK 99503

6311 DeBarr Rd #295
Anchorage, AK 99504-1799
October 12, 1994

Col. Richard S. Hassan, Commander
611 ASG/CC
5800 G St Ste 203
Elmendorf AFB AK 99506-2150

Dear Sir,

Please refer to your August 30, 1994 letter, Subject:
Executive Summary for Draft Environmental Impact Statement
for Improvements to Military Operations Areas in Alaska.

I am submitting the following comments concerning MOA FOX.

The proposal is to change FOX from temporary to permanent
and increase the number of air operations conducted in this
area.

FOX is just north of the recreation area comprised of Lake
Louise, Lake Susitna and Tyone Lake. There are four lodges,
approximately 15 year-round families, another 15 or so
families who live here part of the year, and as many as a
200 or so weekenders with increased use on holidays and
during hunting seasons. There are 450 properties on the
three lakes and about 250 cabins which are used at various
times.

The FOX area includes Clarence and Katana Lakes which are
used by the public throughout the year, especially during
the summer. The southern half of FOX includes many lakes
and streams that are used for recreation, hunting and
fishing, again, especially during the summer.

FOX is a major habitat for the Nelchina caribou herd, moose,
bear, and waterfowl...especially the trumpeter swan. The
increased air activity is bound to have a detrimental affect
on the fauna. A possible side effect is that Brown Bear
have been proven to migrate away from areas of air activity
and this could cause them to migrate south to the Lake
Louise area, which already has too many Brown Bear. There,
they are not only destructive to property, but they are a
danger to the people using the area.

Last, but no less important is the danger to civil aviation
in the FOX area. There are all kinds of bush pilots and

weekend fillers that use this area and they are bound to come
out second-best in an encounter with military aircraft.
Lake Louise serves as the departure point for most of the
trips into the FOX MOA.

I have lived in Alaska since 1946 and have had property at
Lake Louise since 1955 and am interested in insuring that
activities which are detrimental to the area are avoided. I
do recognize the need for training, but it seems that there
are areas experiencing less use, and with fewer inhabitants
and animals.

In fact, it appears that FOX, TANANA and BUFFALO invite
conflicts by being near the road systems that offer
opportunities for people to use those areas.

Sincerely,

Tom E. Main
Tom E. Main

LAN-003

BIO-011

PROPOSED IMPROVEMENTS TO
MILITARY OPERATIONS AREAS IN ALASKA
ENVIRONMENTAL IMPACT STATEMENT
Hearing
SCOPING MEETING COMMENT SHEET

DATE: 10/9/94 LOCATION: _____
COMMENTOR'S NAME: _____
COMMENTOR'S ADDRESS: _____
CITY: _____ ZIP CODE: _____
PHONE NUMBER: (____) _____
REPRESENTING: ☒ SELF ☐ ORGANIZATION
ORGANIZATION NAME: Wade & Associates
ORGANIZATION ADDRESS: 1830 Alaska Way
CITY: Fairbanks STATE: AK ZIP CODE: 99709
KEEP ME PLACE ME ON MAILING LIST: ☒ YES ☐ NO
PLEASE FORWARD A COPY OF THE DRAFT EIS EXECUTIVE SUMMARY WHEN AVAILABLE: ☒ YES ☐ NO

ISSUES/COMMENTS:

No clear risk assessment
Don't make Birch a permanent island
Recommend the elimination of the Birch Marsh
Recommend elimination of such by establishing two
reserve stations avoidance corridors 5 to 10 miles
wide and a buffer of at least 8000 ft along the
Sakha River and over Birch and Harding forests

MIT-028

(over)

USE/REUSE FOR ADDITIONAL COMMENTS

COMMENTS
(continued)

Have lived in the area for 46 years, my daughter
lives close proximity to the Sakha River. They
are close to the old military base from our
first years while staying in the 3rd Air Force
the break the school for young children at
last we thought they were going to build a
the jet base but now we are seeing what it was
before the summer my daughter and her
children were visiting from Alaska and we
were staying at the hotel at Harding
Lake AK. My son thought it was a good
thing it was a 12.5 mile only 3.5 minutes
at Harding the company that was building
at the lake like a lake and the military base
that the military could recommend
the public by getting the area (Huntington
Sakha) around the lake.
On the 14th aircraft is on airport
where people are sitting in question. But
it is important to see
thank you

SAF-001

James M. Hansen
John E. Hansen

PROPOSED IMPROVEMENTS TO
MILITARY OPERATIONS AREA IN ALASKA
ENVIRONMENTAL IMPACT STATEMENT

~~Public~~ MEETING COMMENTS

DATE: _____ LOCATION: HOADING LAKE

COMMENTOR'S NAME: ROBERT J. RUANS, SPENCER

COMMENTOR'S ADDRESS: 1880 ALASKA WAY

CITY: FAIRBANKS PHONE: 997,09

PHONE NUMBER: () _____

REPRESENTING: ☒ SELF ☐ ORGANIZATION

ORGANIZATION NAME: _____

ORGANIZATION ADDRESS: _____

CITY: _____ STATE: _____ ZIP CODE: _____

KEEP ME/PLACE ME ON MAILING LIST: ☒ YES ☐ NO
PLEASE FORWARD A COPY OF THE DRAFT EIS EXECUTIVE SUMMARY WHEN AVAILABLE: ☒ YES ☐ NO

ISSUES/COMMENTS

I have owned my two lots at Hoading Lake for thirty-nine years and I don't like the idea coming over the lake, also up the Solon River where my son has a cabin. My wife and daughter Robert also have a cabin up the Solon River. I'm sure you please for travel on the North side of the Hoading Lake and be very good for everybody concerned.

(1) Disturb of New Lake MOA (your summary?)
(2) How much is miles wide? Robert Ruans, Spencer
The Hoading Lake Forest, Alaska
Close of Solon River + Hoading Lake 10,550 - 3500 ft. wide

NO. 1000000 200/1000000 1000000

Thank you

MIT-028

October 4, 1994

Dear Sirs:

I am a property owner on the Salcha River and would like to submit my comment on the proposed MOA's.

I would like to see the Clear Creek MOA eliminated and support Alternative A.

I would like to see the Birch MOA left on temporary status and establish a 10 mile corridor on the Salch River.

Thank you for your cooperation.

Yours Truly

Jim Hill
Jim Hill

MIT-028

007

October 10, 1994

11th AF EIS TEAM
5800 G Street, Suite 203
Elmendorf AFB, AK 99506-2150

Since 1981 we have resided permanently at mile 39 on the Salcha River.

Until about 1991 we were not greatly bothered by noise from military aircraft, nor were the moose and other wildlife.

With the arrival of the F-15's and F-16's, noise from these planes has become almost unbearable and the proposed increase would be horrible.

A major concern also is the danger of military-civilian aircraft collisions. Many of us use the Harding Lake and Salcha River corridor to fly to and from Fairbanks and North Pole.

For these reasons we urge that the Air Force eliminate its Clear Creek MOA proposal. We would support Alternative "A".

We also request that the Birch MOA be eliminated entirely as it infringes on the Salcha River property.

Thank you,

Roger A. Anderson

Roger A. Anderson

Rose C. Anderson

Rose C. Anderson

cc

008

HC-81, Box 275
Gakona, AK 99586
October 6, 1994

Alaska Military Operations Area
Request For Comments
HQ 611 SGG/LGU
5888 G St.
Anchorage, Alaska 99586

Dear Colonel Rich Hassan:

I am writing in response to your request for comments concerning restructuring Special Use Airspace in Alaska. The NO ACTION ALTERNATIVE is my suggestion for implementation of your restructuring program.

Given the Environmentally Sensitive Nature of the Fox 1 and Fox 2 areas which are major nesting habitats for the trumpeter swan and calving areas for the Nelchina Caribou herd and given the high usage of the Fox 1 and Fox 2 areas for subsistence hunting of moose and caribou, the ceiling should be lifted to 10,000 agl.

There should be NO Transonic operations in these two areas. Given the increasing usage of the Fox 1 and Fox 2 areas for recreational activities and tourism, the Air Force should consider elimination of the Fox 1 and Fox 2 Temporary Operations Areas and return this airspace to general usage with no AIR FORCE overflights.

Sincerely,

Larry D. Gondek

Larry D. Gondek

OTH-014

AIR-008

SAF-005

October 6, 1994

11th AF EIS Team
611 ASG/LGV
5800 G Street, Suite 203
Elemendorf AFB, AK 99506-2150

My comments regarding the Environmental Impact Statement for Improvements to Military Operations Areas in Alaska.

OTH-014

1. NO to Clear Creek as a permanent MOA.

2. YES to Birch as a permanent MOA with certain restriction as to altitude, and we need to establish certain corridors.

Susan Bless

Susan Bless
P.O. Box 60811
Fairbanks, Alaska 99706
(907) 488-0787

P.O. Box 95
Salcha, AK 99714
September 29, 1994

11th AF EIS Team
5800 G Street, Suite 203
Elemendorf Air Force Base, AK 99506-2150

Dear 11th AF EIS Team,

My wife and I were unable to attend the public meeting on September 22, 1994 in Fairbanks, but we would like to have our input included in your study.

As permanent residents of Harding Lake, we have been less annoyed about noise levels than others with whom we've spoken, probably because we came to Alaska from places where noise levels were higher still. However, we are concerned that the changes proposed by the Air Force will increase the noise levels around Harding Lake and seriously affect our enjoyment of the peace and quiet that brought us here, and our property value. Since the North Star Borough has determined that property values along the Salcha River have declined by about 15 percent because of noise pollution, what effect will increased flight operations have on property values on Harding Lake?

And will the Federal Government compensate property owners for property value loss because of the willful action of the Air Force? We are concerned by its aircraft, rather than seems to be considering only the noise that will be generated by its aircraft, rather than the noise contributed by its aircraft to the noise of *all aircraft*, military and civilian, that fly over this area.

PRO-007

CUM -001

We are also concerned that increased noise levels will have an adverse effect on the wildlife in the area. According to the mailing we received informing us of the public meeting, the Air Force openly acknowledges there will be moderate to significant noise impact on moose and caribou populations. What effect will the increased noise levels have on the eagles in their nesting areas along the Salcha River? Aren't eagles a protected, if not an endangered, species? And what impacts can be expected on wildlife from fires and unexploded ordnance? Harding Lake is also a resting place for waterfowl, including swans which are protected, in the spring and autumn; what effect can be expected on them from increased flight operations?

BIO-012

BIO-013

BIO-014

We believe that the Air Force, with its Good Neighbor policy and with all the millions of acres of land in Alaska already at its disposal, can find suitable alternatives to making the Birch TMOA into a permanent MOA. Perhaps the alternative will not provide "optimal access" to a particular training area, but in a combat situation one often has to deal with action in less than ideal conditions.

OTH-014

We will also propose a compromise if the Birch TMOA is established as a permanent MOA. We believe that if a permanent MOA is established, corridors ten miles wide, with

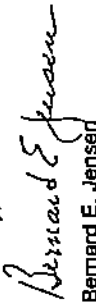
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11th AF EIS Team--page 2

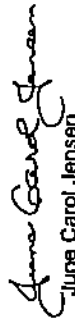
a minimum flight altitude of 5,000 feet, centered on each of the Salcha River and the Richardson Highway, will allow the Air Force to accomplish its training mission, while providing an adequate buffer to the noise for the residents and wildlife of the area.

We further believe that, since the Air Force acknowledges that the training in the Falcon and Eielson MOAs is essentially the same as in the proposed Clear Creek MOA, the Clear Creek MOA should not be established.

Sincerely,



Bernard E. Jensen



June Carol Jensen

Copies to:

US Senator Ted Stevens
US Senator Frank Murkowski
US Representative Dan Young

OTH-014



THE KUSKOKWIM CORPORATION

October 7, 1994

MOA EIS Team
611 ASG/LGV
5800 G Street, Suite 203
Etimendot AFB AK 99506-2150

Dear Sir:

I am submitting written comments on behalf of The Kuskokwim Corporation regarding the Stony MOA. We saw in the Tundra Times of October 5, 1994 that you will have a hearing in Sleetmute on October 12, 1994. The Board of Directors of The Kuskokwim Corporation will meet from October 10 to 13, so there will be no one available to attend that public hearing.

I am enclosing correspondence that I have sent in the past regarding the low flying aircraft in the area. Although this problem seems to have been corrected, our shareholders are still concerned about it. I have spoken to many shareholders who are concerned that the sonic and sub-sonic booms frighten animals during the breeding season. The shareholders are still concerned about the safety of low flying aircraft, too. People have a long memory when it comes to their own safety, and that of their families.

OTH-014

AIR-005

Please pass on to the appropriate squadron commander that the people of Stony River ask that your F-15 and F-16's take care to not fly directly over the village at low altitudes.

Please consider the people of the Kuskokwim River when making any decisions about the impact of the Stony MOA.

Sincerely,

THE KUSKOKWIM CORPORATION



Michael C. Harper
President/CEO

Enclosures

643 G Street, Suite 203, PO Box 104450, Anchorage, Alaska 99510-4450 • Phone (907) 316-2101 • FAX (907) 379-8723
PO Box 227, Kodiak, Alaska 99557-0227 • Phone (907) 653-4751 • FAX (907) 651-4756

011



THE KUSKOKWIM CORPORATION

July 15, 1993

Lt. Katherine Fawcett
Public Relations
3rd Wing
692D 12th St.
Room 120
Elmendorf, Ak. 99506-2530

RE: Stony MOA-Low Flights

Dear Lt. Fawcett:

Thank you for accepting my call Wednesday July 14, 1993 when I informed you of the low flying aircraft reported at the village of Stony River in the mid Kuskokwim river area that day. I had earlier received a call from the Andrew Gusty family who said that during the mid-afternoon a jet flew by at no more than 200' elevation very close to the village. The sudden explosion like noise scared one of their youngsters enough to fall from a bunk bed or some such high place in the house.

Last summer during a regularly scheduled Kuskokwim Executive Committee meeting, representatives of the US Air Force came to explain that certain air maneuvers would be taking place in the Stony MOA. Our board members expressed deep concern over the loud sonic and subsonic booms that not only scared village people in Stony River and other villages but prove to be troublesome to the big game in the region. This is vitally important to TKC villages because of the reliance on the moose and caribou for subsistence purposes. We were assured by the representatives that we were not to worry and that the US Air Force and their jet aircraft would take care not to overly scare people or game. It seems only like yesterday (but it was last summer I believe) that we learned of a crash of one of these aircraft. Such unfortunate and tragic accidents are not forgotten soon by our shareholders who reside under the pathways and near the pathways of routes traversed by our war planes.

We recognize the need for the practice that the F-15 and F-16 planes need to keep our country well defended. We ask once again that the US Force take care not to fly directly over our village people so as to cause us concerns as expressed above.

Our US Senator Ted Stevens just toured some of our Kuskokwim River Villages early in July where he met George Morgan Jr. Chairman of TKC. He saw first hand how most of our shareholders and residents continue to eke out a living. They still need to rely heavily upon

643 G Street, Suite 305, P.O. Box 104460, Anchorage, Alaska 99510-4460 • Phone (907) 216-2301 • FAX (907) 279-4723
P.O. Box 271, Akiak, Alaska 99557-0221 • Phone (907) 615-4271 • FAX (907) 615-4276

the subsistence game such as fish, moose and caribou. He knows first hand village conditions and reliance on taking of big game. With his position on key US Senate committees having oversight of certain military operations, we will send a copy of this for his information.

Thank you for your efforts to inform all those who might consider this and make decisions as to future routing of these aircraft.

I believe it wise that a representative of your office meet with the President of the Stony River Traditional Council to explain your operations and to bring some comfort that his and our calls are being listened to. We are hopeful for your early consideration.

Sincerely,

Michael C. Harper
President

cc US Senator Ted Stevens
cc TKC Chair George Morgan
cc Stony River Council President Andrew Gusty
cc TKC board

REPORT OF THE JOINT CHIEFS OF STAFF
SUBJECT: STONY RIVER INCIDENT
DATE: 10 JULY 1993
CLASSIFICATION: UNCLASSIFIED
AUTHORITY: 10 USC 1046
DISTRIBUTION: 100-1000000
1. SUMMARY
2. REFERENCES
3. ANALYSIS
4. CONCLUSIONS
5. RECOMMENDATIONS
6. COMMENTS
7. APPENDICES
8. DISTRIBUTION STATEMENT
9. ABSTRACT
10. SUBJECT TERMS
11. DISTRIBUTION STATEMENT
12. ABSTRACT
13. SUBJECT TERMS
14. DISTRIBUTION STATEMENT
15. ABSTRACT
16. SUBJECT TERMS
17. DISTRIBUTION STATEMENT
18. ABSTRACT
19. SUBJECT TERMS
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98. DISTRIBUTION STATEMENT
99. ABSTRACT
100. SUBJECT TERMS

United States Senate
COMMITTEE ON APPROPRIATIONS
WASHINGTON, DC 20510-4025

September 10, 1993

Michael C. Harper
President
The Ruskokwim Corporation
P.O. Box 10460
Anchorage, Alaska 99510-4460

Dear Michael:

Enclosed is a copy of a letter from the Department of the Air Force in response to my inquiry on your behalf regarding your concerns about low flying aircraft near Stony River Village.

I hope this information proves useful.

With best wishes,

Cordially,
Ted Stevens
TED STEVENS

Enclosure



DEPARTMENT OF THE AIR FORCE
PACIFIC AIR FORCES

11 AF/DO
5800 G Street Ste 102
Elmendorf AFB AK 99506-2130

Honorable Ted Stevens
United States Senator
Washington D.C. 20510-6025

Dear Senator Stevens

This letter is in response to a phone call received from Mr Michael Harper on 14 July and a letter of 15 July 1993 expressing his concerns about low flying aircraft near Stony River Village.

Mr Harper's call was one of five calls received on 14 July 1993 concerning the same incident. The 1st Wing at Elmendorf investigated the incident and determined poor judgment to be the cause.

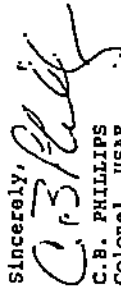
A two ship of F-15C's flying from King Salmon entered the Stony Military Operating Area (MOA) airspace simulating ingressing low altitude "enemy" strike aircraft which were to be intercepted by other "friendly" F-15C's launched from Elmendorf. The aircraft crossed east to west through Stony A MOA at approximately 500 feet above ground level (AGL). The Stony A MOA is approved for low altitude operations with a floor of 100 feet AGL. One aircraft of the pair was successfully intercepted and departed the area while the other aircraft pressed on. This aircraft started a climb crossing the Stony River, but failed to achieve the minimum required altitude prior to entering the Stony B MOA. The Stony B MOA has a floor of 3000 feet AGL. The pilots used poor judgment when selecting the airfield in Stony River Village as their "target" and then flew below their planned altitude.

The 1st Wing has taken corrective measures to insure adherence to guidelines and avoidance of populated areas within the Stony MOA. Pilots have been directed to use other, non cultural areas within the MOA for simulated targets. The 3rd Wing Public Affairs office responded to Mr Harper on 19 July and also sent an open letter to the residents for display in the local Post Office in an effort to get the word out to as many people as possible. Copies of these letters are provided for your information.

Please be assured we will continue to make every effort possible to minimize potential adverse affects of our air operations. Further, the Air Force is committed to responding to comments as expeditiously as possible.

This letter has been reviewed and approved by the Vice Commander, 11th Air Force. If we can be of further assistance, please let us know.

Sincerely,



C.B. PHILLIPS
Colonel, USAF
Chief, Operations Division

2 Atch

1. JWG/PA Ltr to Mr Harper
2. JWG/PA Ltr to Postmaster

Michael C. Harper
Kuskokwim Corporation
P.O. Box 104460
Anchorage, AK 99510-4460

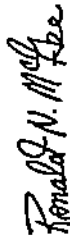
Dear Mr Harper

Thank you for your letter dated July 15, 1993, concerning the overflight at Stony River.

Our research indicates that one of our flying units mistakenly identified an airfield in your vicinity as a flying area. We have corrected the error, and are ensuring that all pilots using the Stony MOA are advised to avoid overflying the Stony River Village area.

Please feel free to call my office if you have any questions, or future incidences. MSgt Lee Ellsworth, at 552-8151, would be more than happy to help.

I am sending an extra copy of this letter to the Stony River Post Office so that it may be placed on the bulletin board. This way, all of the residents will know the result of their concerns and will have a name and phone number to call should they have any questions.



RONALD. N. MCGEE, Major, USAF
Chief Public Affairs

011

Postmaster
Stony River
Aniak, AK 99557

Dear Postmaster,

Please post this letter on your bulletin board. It is a response to the numerous phone calls I received as a result of an overflight by Elmendorf aircraft on July 15.

While talking to people who live around your community, we discovered that the best way to reach everyone was to post the response at the post office.

Thank you so much for your cooperation and assistance in this effort.

Ronald N. McGee
RONALD. N. MCGEE, Major, USAF
Chief, Public Affairs

012

To: Alaska Military Operations Areas
Draft Environmental Impact Statement
611 ASG/LGV
5800 G Street
Suite 203
Elmendorf Air Force Base, Alaska, 99506-2150.

From: KJ Mushovic
Box 301
Glennallen, AK 99588

Date: October 6, 1994

I am very concerned about the dramatic increase in aircraft activity which would take place in the FOX 1 temporary Military Operations Area (MOA) if it is converted to a permanent MOA.

I cannot believe that there is any mitigation that would adequately diminish the negative impacts to wildlife (including the Nelchina caribou herd, which is heavily relied upon by subsistence and sport hunters, and beloved by area tourists).

BIO-009

I am also very concerned about the potential for conflict between Air Force aircraft and the pilots of small, private aircraft. Additionally, I fear that these pilots will face a steady eroding of their access rights to the airspace if it is converted to a permanent MOA.

*AIR-008
SAF-005*

Of extreme concern is the negative impact the increase in military aircraft activity would have on recreation in and enjoyment of the area. Right now, it is a mecca for urban residents of Anchorage and Fairbanks, and also draws tourists from around the world. Residents choose to live here in large part because there were no intrusive activities such as constant jet aircraft activity.

REC-004

I recommend that the Air Force keep FOX 1 a temporary MOA, and not use FOX 2 or TANANA, even on a temporary basis.

snw

KJ Mushovic

cc: Senator Ted Stevens

US AIRBORNE

20 SEPT 1984

11. AF AGC LGV

RE: EIS, MILITARY OPERATIONS AREAS;

I AM WRITING TO VOICE OPINION CONCERNING PROPOSED SITES OF INCREASING MILITARY FLYING EXERCISES, PARTICULARLY OVER YUKON 2, THE AREA I LIVE IN. TO INCREASE ACTIVITY IS BOTH UNNECESSARY & UNDESIRABLE; THE MILITARY HAS PLENTY OF AIRSPACE, RESTRICTED AREAS, & RANGES THROUGHOUT ALASKA - A QUICK GLANCE AT A STATE MAP WILL SHOW THAT. IT IS HUMBIOUS TO NOTE THAT THE DRAFT EIS SHOWS ONLY THE 2 MAIN BARRS AT ELKHART & ELKHART BARRS, WHEN IN FACT THERE ARE NUMEROUS OTHER SITES USED BOTH PAST & PRESENT.

I CERTAINLY AM A SUPPORTER OF THE ARMED FORCES & SEE THE NEED FOR TRAINING, BUT DO NOT FEEL ANY INCREASE IN THE PRESENCE OF THE MILITARY OUTSIDE OF THE AREAS THEY ALREADY CONTROL IS NEEDED. AS A CITIZEN OF THE STATE OF ALASKA, HOW MANY OF THE MILLIONS OF ACRES OF LAND THE MILITARY CONTROLS UP HERE IS OPEN TO US 'CIVILIANS', TO EITHER FISH, HUNT, TRAP, OR NINE ON?

IT IS PARTICULARLY IRKSOME TO DEAL WITH THE LOW LEVEL SUPERSONIC FLIGHTS & RELATED SONIC BOOMS FROM THESE FLYING EXERCISES. I LIVE IN CENTRAL, WHICH IS IN A VALLEY (GEOGRAPHICALLY, A GORGE) BETWEEN 2 AREAS OF MOUNTAINOUS HIGHLAND; ANY SOUND FROM AIRCRAFT ARE TRAPPED IN HERE, & THE MOUNTAIN SIDES FLOWN ARE VERY DISTURBING.

OTH-014

THE SCENE OF HERE IS A VERY LARGE MILITARY AREA, THAT HAS NO RECREATION LIVING THERE, WHY ARE THESE EXERCISES NOT FLOWN OVER AREAS ALREADY DEDICATED TO MILITARY USES? SUCH THAT THERE IS NOT IDEAL; GAME, ESPECIALLY

THE CARIBOU HERDS ARE LIKELY TO BE IMPACTED. MY DOG DOES NOT LIKE YOUR LOW LEVEL AIRCRAFT OR SONIC BOOMS, AND HE ISN'T AFRAID OF ANYTHING - NOT GUNFIRE, ARMS OR NOISY HEAVY EQUIPMENT, VEHICLES ETC. BUT THE HINDS WHEN ONE OF YOUR FLYING EXERCISES IS GOING ON, I DOUBT THAT CARIBOU, OR OTHER WILDLIFE, ARE ANY MORE TOLERANT OF THIS.

JUST ANOTHER IN THE PUBLIC RELATIONS BLUNDERS BY THE MILITARY UP HERE IN ALASKA, AT LEAST YOU HAD THE SENSE TO CANCEL THESE FLIGHTS WHILE THE PUBLIC HEARINGS WERE GOING ON. I'M SURE THAT ONCE THE E.I.S. IS DONE, IT WILL BE BUSINESS AS USUAL. I AM REMINDING OF A SMALL INCIDENT STEAMING FROM LOW LEVEL FLIGHTS IN THE LITTLE NETCHINA AREA SEVERAL YEARS AGO. A FATHER WAS FRUSTRATED ENOUGH TO TAKE A SHOT AT SOME AIRCRAFT THAT WERE BUZZING HIS LIVESTOCK, DUE TO GRIEVE DISREGARD OF HIS PROBLEM BY THE AVERAGE COMMAND. IS THIS THE TYPE OF ATTITUDE WE IN THE INTERIOR OF ALASKA HAVE TO LOOK FORWARD TO DEALING WITH? BELIEVE IT OR NOT, WE ARE SUPPOSED TO BE ON THE SAME SIDE.

J.M. MESSING
'X' (AGE MESSING)

P.O. BOX 216
CENTRAL AK 99730

PROPOSED IMPROVEMENTS TO
MILITARY OPERATIONS AREAS IN ALASKA
ENVIRONMENTAL IMPACT STATEMENT

SCOPING MEETING COMMENT SHEET

DATE: 9/26/94 LOCATION: Tok
COMMENTOR'S NAME: SEANNE MCCARTHY
COMMENTOR'S ADDRESS: P.O. Box 162
CITY: TOK, AK ZIP CODE: 99780
PHONE NUMBER: (907) 883-5126

REPRESENTING: ☒ SELF ☐ ORGANIZATION
ORGANIZATION NAME: _____
ORGANIZATION ADDRESS: _____
CITY: _____ STATE: _____ ZIP CODE: _____

KEEP ME/PLACE ME ON MAILING LIST: ☒ YES ☐ NO
PLEASE FORWARD A COPY OF THE DRAFT EIS EXECUTIVE SUMMARY WHEN
AVAILABLE: ☒ YES ☐ NO

ISSUES/COMMENTS:

I DO NOT WANT THE AIR FORCE CONDUCTING
MILITARY TRAININGS - FLIGHTS OVER THE AREA'S OF VILLAGES
1 AND 3. FLIGHTS OVER THE AREA'S OF VILLAGES
WILDLIFE WOULD BE DISTURBED. NOISY AND IN
THE EVENT OF A CRASH - POTENTIALLY DANGEROUS SINKER
WAS HIT IN A HIGH FOREST FIRE ZONE. ALSO
MILITARY AREAS HAS DISTURBS THE NATURAL MIGRATION
ROUTE OF THE 40-MILE CARIBOU HERD. MILITARY
US HERE IN TOK, RELY ON CARIBOU FOR OUR WINTER
SUPPLY OF MEAT - AND IF THE HERD WERE DISTURBED
AND CHASSED OUT BECAUSE OF THESE TRAINING
FLIGHTS, IT COULD MEAN THE LOSS OF AN

AIR-005

BIO-004

FOR REVIEW AND FOR ADDITIONAL COMMENTS

COMMENTS

(continued)

IMPORTANT PART OF A FOOD SUPPLY. I AM
DEFINITELY AGAINST THIS AND SEE NO BENEFIT TO OUR
AREA, PEOPLE AND WILDLIFE.
THANK YOU!

J. MCCARTHY

PROPOSED IMPROVEMENTS TO
MILITARY OPERATIONS AREAS IN ALASKA
ENVIRONMENTAL IMPACT STATEMENT

SCOPING MEETING COMMENT SHEET

DATE: 9-26-94 LOCATION: Tok
COMMENTOR'S NAME: FRANK MURPHY
COMMENTOR'S ADDRESS: 302662
CITY: Tok ZIP CODE: 99782
PHONE NUMBER: (907) 883-5726

REPRESENTING: ☒ SELF ☐ ORGANIZATION
ORGANIZATION NAME: _____
ORGANIZATION ADDRESS: _____
CITY: _____ STATE: _____ ZIP CODE: _____

KEEP ME/PLACE ME ON MAILING LIST: ☒ YES ☐ NO
PLEASE FORWARD A COPY OF THE DRAFT EIS EXECUTIVE SUMMARY WHEN
AVAILABLE: ☒ YES ☐ NO

ISSUES/COMMENTS:

I do not believe flying over
our village is healthy anyone. There
is a abundance of wild life in the
area and the overcast by the
people. Low level flying could
possibly disturb the caribou herd and
change their path of migration. There
is a breeding time in July and August.
I should hope the military could find
other places to practice besides
over the Army Air base. It is
very difficult to live in such close

FOR REVIEW AND FOR ADDITIONAL COMMENTS

BIO-004

COMMENTS
(continued)

no more business or commerce to
support without someone scoring off
at winter meat supply. We depend
on the head of Gordon to score us
through the winter.

Success
Calligraphy

9-28-94

AIR Force - FAA

EIS proposed MOA changes AK

DRAFTS 2:

• live in TOK, we fly a PA-18 CUB &
• Utilize the entire flying space
within an approximate 150 mile
radius of TOK. We fly all seasons,
• Hunt, fish & trap.

While recognizing the needs of the
military, we civilians also have
needs. One of which is to not be
battered out of the sky by all F-15's.

There will be a conflict for sure
if heavy metal occupies the same
zones as civilian light craft.

SAF-005

AIR-008

There will be economic disempowerment
as for some trapping pilots, this
is their livelihood. ... there
is also subsistence/culture/social
disempowerment when the Air Force
provides "Spotting Service" for

016

Military Hunters (They have told us they do!) There is also the wise disclaimer of safety conflict w/ the Victor Airways

AIR-008

I vote for staying as far away from 70K / 40-mi country as possible ... I vote for the NO ACTION alternative first, then AS A LAST RESORT I'd accept Alt. A ^{that the "spilled moments"} ~~that the "spilled moments"~~ under no circumstance could I support (or tolerate) Alt. B.

You have the ability to go elsewhere, I do not ... In fact, I cannot go elsewhere w/o crossing your MDA's or routes. You have the means, methods & ability to do your training in areas of NO or at least minimal. Habitational

You don't need my backyard; you only want it. Go O'fact!

016

As winter comes on & daylight gets short, your proposed limited number of aircraft training ops. gets compressed which can easily result in the 4-5 hrs of daylight that I can fly during also has military ops which is incompatible.

Supersonic at 5000 ft AGL & GADGEEKS & GYDIN in the way, I can't escape!

Since Alt B was developed due to response to public comments received concerning "other possible scenarios" for MDA's ... apparently this Alt is necessary only and not high on the Air Force desire list.

That wording also implies many other people would be unhappy w/ a MDA in their backyard!

②

10/16/94

11th Air Force EIS Team
5800 G St. Ste 203
Elmendorf AFB
Anchorage, AK, 99506-2150

Dear Sirs:

This letter is in response to requests for public testimony concerning the Draft EIS for Alaska Military Operations Areas. I did testify in person at the Anchorage hearing but had not had the opportunity to see the entire draft EIS at that time. This is additional testimony after briefly reviewing the larger document.

My first comment concerns the availability of the complete Draft EIS. It is not available in the public library; the University of Alaska library could not find their copy, which left one copy at the BLM library for 250,000 people in the Anchorage area, half the population of the state.

PRO-003

Secondly I wish to make some general comments about when an EIS is not an EIS:

1) The Draft EIS is very clear that there is not enough information available to make conclusive statements about wildlife. In Vol. II, p. 4-88 it states that "Insufficient evidence exists to make conclusive statements regarding the effects of aircraft noise and sonic booms on populations of wild animals---" and on p. 4-89 it says that "Aircraft noise impacts on many of the topical areas of concern in this analysis have not been sufficiently studied.---- Effects on moose, black bears, wolves, and fur bearers have only been hypothesized".

PRO-014

2) There is no research on the effect of aircraft noise on subsistence.

3) When discussing noise effects, averages are used, but the noise is experienced at the time and, in the case of sonic booms, all at once and certainly not experienced as an average.

4) Sonic booms are discussed in the executive summary as "like thunder" and trivialized (p. ES 12).

NOI-001

NOI-002

I believe the above examples show that there can be no meaningful EIS without a great deal of further research. There should be no increase in permanent MOAs until the effect can be truly understood. (And existing MOAs should be scrutinized as well).

Thank you for the opportunity
to comment... just don't
select Alt B (PANAMA MOA)

Thank you

David D. Parker

PO Box 382


TOK, AK 99780

Third, there should be no overlap of parks and preserves, either state or federal, as the noise pollution is incompatible with the reasons for establishing those areas. In Vol I p.3-207 it states that "It is important to note that overflights by military aircraft using the existing permanent and temporary MOAs occur now over many of the recreational areas----The types and numbers of aircraft have evolved over time, as has the manner in which the airspace is used". Since there is no certainty that in the future more intensive aircraft use will not occur, there should be no more permanent MOAs that include any park or preserve airspace. Existing MOAs should be re-evaluated on this basis.

Fourth, I wish to comment on a specific MOA. Half of the Susitna MOA covers a large trumpeter swam nesting area and the other half is over the Denali National Preserve. Neither is acceptable. As is stated in the EIS, Vol. II p.4-93, "----critical trumpeter swam breeding areas are potentially affected, particularly in the southern 2/3 of the Susitna MOA,--". If this is an example of what happens when the Air Force is given "permanent" use of an area, it is a very good argument for no permanent use.

Finally, I find none of the proposed alternatives acceptable. The No Action alternative is only the best of a lot of bad choices. The scaling down of exercises, the use of ocean MOAs are not addressed.

Thank you for the opportunity to comment.

Sincerely,

 Elizabeth Hatton
 H.C. 52, Box 8900
 Indian, AK. 99540

AIR-014

TALKEETNA PUBLIC HEARING
 DRAFT ENVIRONMENTAL IMPACT STATEMENT
 SEPTEMBER 29, 1994

COL. HEUPEL:

I am calling this public hearing to order at this time. We are at the Susitna High School outside of Talkeetna. It is about 7:22 by the school clock. We have no interested citizens here for the hearing. Mr. Brian Hoffer called the Talkeetna Elementary School a few minutes ago to check to see whether anyone, any citizens were at that school because the scoping hearing had been held at that school earlier in the year. No one is at that school by mistake. I've been downstairs to check the parking lot and no one is coming into the parking lot. We did check earlier in Talkeetna at the post office and verified that there were notices of the meeting out, that the library had the copy of the Draft Environmental Impact Statement. So, it appears to me at this time that there is not sufficient public interest for the public hearing portion of this Draft Environmental Impact Statement Process and therefore, because there is no interested citizenry to either listen to the briefing or to provide public comment, I am going to, at 7:23 hours p.m., close this public hearing.

Thank you for coming.

CERTIFICATION PAGE

I, Arlene A. Stoelting, do certify that this transcript is an accurate record of the proceedings as recorded.

Dated: 9/30/94


 Arlene A. Stoelting

Subscribed and sworn to
 before me this 30 day
 of September, 1994.


 Sandra M. White
 Notary Public

My Commission Expires 8-1-97

ALASKA MILITARY OPERATIONS AREAS

PUBLIC HEARING

FAIRBANKS, ALASKA

September 22, 1994

INTRODUCTION - PRESIDING OFFICER

COLONEL McSHANE:

Good evening, ladies and gentlemen. Welcome to the public hearing on the Draft Environmental Impact for the Alaska Military Operations Areas. Thank you for coming tonight. I do solicit your comments and involvement in tonight's hearing. For those of you who have not had an opportunity to review the Draft Environmental Impact Statement, it will be summarized later in the presentation.

I am Colonel Mike McShane, and I will serve as the presiding officer for this public hearing. I am a military judge for the Air Force and I am assigned down at Randolph Air Force Base in Texas. I have not had any involvement in the development of the Draft Environmental Impact Statement, and I am not here as any type of official advisor to anyone concerning this proposal. My role is limited to simply insuring that we have a fair, orderly hearing, and that all who wish to be heard have a chance to speak. I do expect that there will be a wide variety of comments expressed here and I ask that you treat one another with courtesy and respect.

I would like to introduce tonight's briefers. Colonel Rich Hassan is from the 611th ASG at Elmendorf Air Force Base. He will give you an overview of the environmental impact process and later talk about mitigation actions. Major Bob Siter will talk about the proposal and the issues raised during the scoping process. And Mr. Bill Ham from Spectrum Sciences will describe the environmental consequences of the proposed action.

Now, I would like to explain the public hearing process, and the procedures that we will follow this evening.

The Air Force has prepared a Draft Environmental Impact Statement on the Alaska Military Operations Areas, and that's this four or five inches of paper here on

the table with me. And that was done in accordance with the National Environmental Policy Act, and Air Force implementing regulations. The purpose of this hearing is to summarize for you the results of the Draft Environmental Impact Statement and to receive your comments on the Statement.

Tonight's hearing will be in two parts. During the first part, the briefers will present information to you concerning the environmental impact analysis process performed for the Alaska Military Operations Areas. The briefing takes 40 to 45 minutes and is required by law. The second part of the hearing is the public participation portion where you will have the opportunity to comment on the Draft Environmental Impact Statement. This hearing is intended to provide a public forum for two-way communication about the Draft Environmental Impact Statement with a view to improving the decision making process. Your inputs provide the decision makers with the benefit of your knowledge of the local area and any adverse environmental effects that you think may result from the proposed action or the alternatives to that action. Please keep in mind that this hearing is not a debate, nor is it a referendum. It is not a vote on the actions that have been analyzed in the Draft Environmental Impact Statement. The focus of the hearing is on the environmental impacts associated with the proposals being studied by the Air Force. Comments on non-environmental issues such as national defense policy should not be raised at this hearing. It will not add anything to the record and will take away time from your opportunity to comment on the Draft Environmental Impact Statement. Please refrain from public demonstrations for or against the comments that are made tonight because that reduces the time available for comments.

When you came in, you were asked to sign up and to indicate if you wish to speak tonight. After the presentations by the briefers, I will be calling on those who want to speak concerning the proposal. Elected public officials will be called on first followed by members of the public. I will call on members of the public in the order in which you signed up. If you have not had an opportunity to sign up to speak, or if you weren't going to but changed your mind and decided you want to, please check with Sgt. Beyer there at the door. If you brought a prepared statement with you tonight, you can read it out loud or just leave it at the box by the microphone and it

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will become part of the record. If you do not want to make an oral statement tonight, but would like to provide an input, you may do so in writing. For your convenience, we do have written comment sheets available at the registration table for your use. Any comments that are made tonight, whether given orally or provided in writing, or submitted later, will be given equal consideration in the decision making process. However, if you want your comments to be included in the record, and considered in the process, those comments must be received by 31 October 1994. Even if you speak tonight or hand in a written comment, you still do have until 31 October to provide any other additional input that you so choose. The address where comments can be mailed will be on a slide that is left on the screen later on, and it's also on the written materials that are back there on the registration table. In summary, I would like to stress that this is your opportunity to provide the Air Force with any information you may have regarding environmental factors that are unknown to the Air Force and to have input into the decisions that the Air Force must make with regard to the proposed action or the alternative actions.

At this point, I would like to call on Col. Hassan to describe the environmental impact analysis process for you.

COLONEL HASSAN:

Good evening. I would like to spend a little bit of time to explain basically where we are in the process and let you know where we've been and what we've done up to this point in the last year when we were here. And then as the judge said, you will have an opportunity to provide us some more comments to clarify or to add to what we have already received from the general public as well as other federal and state agencies.

I will start tonight with a brief overview. Major Siter will talk about the proposal. He will also talk about those issues that were raised by you to us during the scoping process and that were then analyzed in the document that you have before you tonight. We'll then get into some of the exact potential environmental consequences of our proposed action and discuss those with you. And then finally I'll speak to you about how we address any potential environmental impacts, and that's called mitigation.

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During the scoping process, we had several misunderstandings or several issues that were raised that I would like to address now. First and foremost, this is a proposal. That is, we started it over a year ago. We've gone through a process of analysis. We are here tonight to try to refine that analysis based on any more issues or comments or concerns you have and it will take roughly another year before we get to any point to make a decision on this proposal.

The second point that I would like to make is that this proposal does not address the flying, the amount of flying that is done in the State of Alaska. The way we have looked at the process, the overall amount of flying in the State of Alaska is not expected to increase because of this proposal.

The third point I would like to make is the concept of Military Operations Areas which is what this proposal addresses. These are places in the sky that are not, that do not have fences around them. They do not affect the land underneath in any terms of ownership. However, the public has every right and access to Military Operations Areas. They were formed in 1976 to act as advisories so that the general population, the general public who fly, know where the military flying training activity is confined to.

And last, but not least, I hope that you will find both from last year and this year, we are interested in your comments. We have taken a lot of the comments that have been given to us over the past year. We have already made adjustments to the proposal before the proposal is actually to the end point.

One of the basic questions is, why are we adjusting the air space in Alaska? The first and foremost reason is during the Cold War, our focus of training was to detect and track any Soviet or any foreign invaders to The United States. That basically was an air-to-air mission. As the times have changed, the Cold War has ended, the mission taskings to The United States Air Forces in Alaska are to be able to be ready and to train to be ready to pick up and deploy to hot spots around the world. That kind of training is predominantly an air-to-ground type training. And so we need to more efficiently organize our air space structure to provide a suitable air space and connection to the ground bombing ranges so that we can get the training that we need.

Secondly, we have utilized the concept of temporary military operations areas that come into effect when we conduct major flying exercises. In order to secure temporary flying areas, temporary military operations areas, we need to go through a lengthy process that is both costly in time and dollars, tax dollars, but it also does not allow for that air space to be charted. If a civil aviator picks up an air space map today, he will see permanent military operations areas, but will not see temporary ones. We believe by charting these air spaces as permanent military operations areas, will act as an additional advisory so civil aviators know where our training is allowed to be conducted.

Lastly, but not least, Alaska is a significant strategic location. We in the military are drawing down our forces. With the small amount of forces we have left, and those limited resources and airplanes that we have in Alaska, they need to be ready to deploy either east or west. Alaska is the best place for The United States that we can do that from. We can deploy the airplanes we have here either to Europe or that part of the world or to the Pacific Rim. And again, with the small amount of forces, we need to be as flexible as possible.

The process, the environmental impact statement process, that we have elected to proceed with, which is where we started last year, started this time with scoping. We came to you, the public, and said, "This is our proposal." We got lots of input about that. In fact, we have a mailing list now that's over 500 names long, including federal agencies and state agencies, who have all given us comments, issues and concerns. We look about one year to go back and produce the document that the judge referred to. That's the Draft Environmental Impact Statement. In that document, you will find lots of information. And hopefully, as we go through tonight, we'll be able to focus in on those potential consequences that we've identified that could happen from what we've identified. That's where we are tonight. Public hearings. Your opportunity to continue to comment on our proposal. After this, we will go back, we will refine the analysis. We will add to it. We will change it, depending upon what your input is. And what the other federal and state agencies say. And before a final decision is made, approximately another year of time will pass.

Within that big, thick document, there's basically four pieces. The first piece is, why are we — the purpose and need of our acts, of our proposed actions. The second is a description of that and Major Siter will take you through exactly what we're proposing to do. The third part is, describing all of the areas that could be potentially impacted by this proposal. And last is the specific environmental consequences that could happen if we proceeded. These are the locations that we have conducted both our scoping hearings at, and our public hearings will go to all the same places. Here's the time line we're on. We started Monday in Anchorage; we're here in Fairbanks tonight; and we will go through the 12th of October collecting comments. And as was referenced earlier, we will take written comments on the proposal through the 31st of October.

I would like to introduce Major Siter to talk about the proposal and some of the issues that we were asked to address.

MAJOR SITER:

Thank you, sir. Col. Hassan started tonight talking about change. Change is the primary reason why this proposal is before the public. The Air Force in its attempts to deal with change in the world as well change in Alaska has to look at where its infrastructure, its bases, its runways and maintenance facilities, where its people are housed, and those type of things to determine how it can best deal with change. We restructure air space to best meet the readiness requirements of our Air Forces in Alaska so it can meet its taskings which have increased in complexity and scope. The first thing is the location of the two main bases in Alaska, Elmendorf in Anchorage and Eielson Air Force Base in the Fairbanks area. These bases were created during the Second World War and provide one major component for infrastructure. The second component is the three bombing ranges in Alaska — and these are the only ones — they are all centrally located southeast of the Fairbanks area. These were also created during the Second World War. How far an aircraft can travel also gives parameters on where the reasonable alternatives to where you can restructure your training to get that training accomplished. For example, the F-15s out of Elmendorf — okay, this is the distance that they can travel to a military operating area,

and then return to Elmendorf in a safe manner with a safe level of fuel. The aircraft, the Strike Eagles from Elmendorf, the F-15Es, the OA-10s out of Eielson and F-16s out of Eielson, all are air-to-ground aircraft which Col. Hassan has talked about. They need to go to the bombing ranges on a daily basis to successfully complete their training and be prepared for their readiness requirements. The areas depicted here from Elmendorf for the Strike Eagles as well as the F-16s out of Eielson, all allow the aircraft to reach the bombing ranges, but yet still train in military operating areas and return to their home bases at a safe fuel level.

The Federal Aviation Administration also has a structure, the federal highways here in the sky, if you will, the yellow lines, are the methods of transit throughout the state for aircraft, both military and civilian, to go to the various regions of the state. The locations of these routes are important in that when the military operating areas were created in 1976, these areas in green, they were located to the extent possible, away from those airways, so as to minimize interference. Except for the operating areas represented here in blue, have been arrayed throughout the state since 1976, and even prior to accomplish exercise, again for readiness requirements, and they also to the extent possible, are located away from the airway structure.

I'll now talk about the proposal. The first point is to modify some existing military operating areas. I'll start with Southwest Alaska and work in a clockwise fashion. The first, Naknek 1 and Naknek 2 in Southwest Alaska. Last year, the alert aircraft at King Salmon, where I'm pointing right now were essentially put back in Elmendorf. Naknek was a support air space for alert aircraft to do some training while they're located out at King Salmon. However, aircraft from Elmendorf do go out to Naknek on a daily basis to do training. What has resulted is a reduction in the number of aircraft operations in that air space. At the present time, we have a 10-hour window to operate there, 8:00 in the morning till 6:00 at night. We don't need 10 hours. Our proposal is to reduce the number of hours by 50 percent to a 10:00 in the morning to 3:00 o'clock in the afternoon window to operate. Stony air space, Stony A and Stony B, is presently the only air space in the entire state that is arrayed with tracking antennas that track aircraft and carry telemetry pods which allow the tracking

of the position of the aircraft, the altitude and air speed, its heading, it's all beamed up to a satellite and back down to Elmendorf and saved on a video tape. The crews finish their training and fly home, land, go into the theater and sit down and collectively look at the tape. And what the tape does is it shows all the aircraft who were out in the air space, how they trained, how they maneuvered, they can also look at different cockpit perspectives from each of the different pilots out in that air space. And what happens is learning is accentuated. Again, you're able to perceive better and understand exactly what happened in the air space so that better lessons are learned and again, they get more training for the fuel that they consumed on those missions. At the present time, the floor of Stony A is 100 feet above ground level, but the floor of Stony B is 3,000 feet above ground level. Given the value of the air space in terms of this training potential, you want to align the floor with A and that is the reduction of floor B to 100 feet above ground level.

Galena air space here in the Interior with Galena Air Force Station located about here, had a similar pullback of alert aircraft, back to Galena, like occurred in King Salmon and they've been put back at Elmendorf. This air space was predominantly to support those alert aircraft. We do not routinely use from Elmendorf, the Galena air space. As such, use has dropped quite a bit. What we would like to do here is use this air space on an as-needed basis. When would we do that? On occasion both to King Salmon and to Galena, we deploy our aircraft as well as our maintenance people and fire personnel who go out and reconstitute the base. Now why do we do that is so that we can be flexible if the world situation were to change and we would have to re-emphasize above our present defense level, our air defense output, or operating bases. We do that on a quarterly basis so that we're ready to do that if a real contingency were to occur.

The last component of the permanent air space is Yukon 1 here. At the present time, the floor of Yukon 1 is the ground. We don't need to train at that altitude. In fact, we train much higher than that. It's simply right now, Yukon 2 has a floor of 100 feet above ground level and we want to match that and raise the floor of Yukon 1 to that same altitude, 100 feet above ground level.

The second component is to convert existing temporary MOAs to permanent MOAs. There are three sections I'll talk about. The first section is the outlying airspace here adjacent to the Canadian border and to the north. Yukon 3, Yukon 4 and Yukon 5. This air space provides suitably-sized air space you can conduct major flying exercises. If you attempt to try to conduct these major flying exercises strictly in the permanent air space, what you end up with is all the aircraft in the exercise are compressed too closely together and it does not replicate what we actually do in aerial combat. And we want to make sure that whenever we do these type of exercise, they in fact are realistic so that our pilots will learn the correct lessons and not the wrong ones. Additionally at the present time, aircraft will go out and do routine training where they access only to this permanent air space. Our aircraft operations are concentrated there. What we would like to do is disperse that activity so that again, now we have less environmental impact.

A second component is this area right here, Fox air space. When I showed you a map with the circles around each of the bases, this is a circle, for example, around Eielson — we're here and Elmendorf here — this air space was the only air space that was intersected by both circles. What does that provide, what does that mean? It's the only air space that the aircraft both from Eielson as well as Elmendorf can go out and fight against each other. That's real important. If all you ever do is fight against your own type of aircraft, day in and day out, you're not going to be as effective a pilot, you're not going to be as knowledgeable, you're not going to be as competent. Additionally, if all you ever do is fly against your own aircraft, you can't ever be teamed up with the other aircraft, day to day, and learn what are the strengths and limitations of those other aircraft. How do they talk? How do the coordinate? How do they mission plan? What are their equipment limitations, and strengths and weaknesses? If you don't learn that in peace time, you're going to find out the hard way in war time.

The next portion is what we call the connecting MOAs, here in the middle. Here's an expanded view. These three red areas — are those three and only three bombing ranges in Alaska. You'll note the permanent air space here at Yukon 1, drawn in green, that it does not meet or reach the bottom ranges here to the southwest.

What happens day-to-day to our crews are again predominantly air-to-ground training. They need to use the ranges in a realistic manner to make sure that their readiness needs are met. (UNINTELLIGIBLE) training completely stops. They then have to climb up, talk to the Federal Aviation Administration, and then move onto the range. So, essentially, as we're approaching a target area, they have to climb up. In actual combat, if they do that, that is going to essentially possibly end their mission at that point. It could be a very drastic outcome. We don't want negative training for our air-to-ground pilots. What we would like to have is the ability to transit subsonic, without any maneuvering, straight to the bombing ranges. These air spaces are very, very shallow in depth, and also, as you can see, compared to the other maneuvering MOAs, are smaller geographically. And so the bottom line is just looking for transit in and out of the ranges.

The third component is to create two new permanent MOAs. The two parcels are as follows: Falcon MOA here to the north, Clear Creek MOA here to the south. The Falcon MOA abuts up and overlies the Eielson Air Force base. Now the purpose for having air space near the Air Force base is that when we train for readiness, we train as units. And that's not just pilots. That's the maintenance personnel, it's the fire personnel, the medical people, the civil engineers that rebuild runways. They all have to be trained as well. And so when we make up an exercise, it involves everybody on the base. What we would like to do is have aircraft come in from the permanent air space in here and conduct simulated air field attacks. That way we're training everybody. Clear Creek MOA drawn here, Salcha River, essentially goes right to this base. The eastern part of Clear Creek MOA goes up here through Yukon. This air space abuts up against one of those three bombing ranges. Blair Lakes Range. What it allows is for aircraft to access the bombing range from the northeast quadrant.

The fourth component. Authorize supersonic operations in five MOAs. The areas under consideration: Fox, Yukon 1, 3, 4 and 5. They are proposed for at or above 5,000 feet above the ground level which is the present altitude that the existing MOAs that have been supersonic-authorized already are at. When we do supersonic operations, they usually last anywhere from a few seconds to a few minutes. They

are normally done at very high altitudes. And there is a reason for that. The higher and faster that you can fly, the further any air-to-air missile that you might fire can travel. And what that does it gives you an offensive position on an adversary aircraft. Air Forces around the world that are, in our opinion, formidable, also know this and they fly high and fast in their attempts to do the same thing. So what are we trying to do? We're trying to both get the offensive position and also deny the adversary air when they are trying to use that tactic against us. Again, high altitudes.

Conduct joint-combined training. This is training that is going on throughout The United States Air Force, throughout the world, and we've been doing this for a long time. The reason why we are doing it, is that we know that if we downsized our Air Force, to be able to deal with the world situation, you've got to form teams. We've been flying our joint training with the Army, the Navy and the Marines. That joint training has given us good value in terms of learning what our strengths and limitations are, in learning which of our equipment is compatible and that our tactics are compatible. We also, in combined training with our Allies, have learned that we can't form coalition Air Force like Desert Storm if we don't lay the ground work prior to that. We did that throughout the 80s. Training with the British, with the Australians, with the Canadians in a lot of our exercises, both in The United States as well as in their countries, the coalition Air Forces performed in desert storm and performed very well. We believe that's the wave of the future and we want to continue to do that type of training.

The last component. Conduct up to six major flying exercises per year. The maximum we've done in any given year so far is four. We did four last year, three this year, and are planning four next year. Again, this training is very valuable to our air crews as well as our units. It's been proven over time that if we can get some training missions and these major flying exercises to our young crews, they stand a very good chance of surviving the first ten missions in actual combat. And so again, very valuable training for readiness.

In the process of scoping last year, we received inputs and alternatives. What we've done is we've assessed that against our narrowing criteria to determine reasonable alternatives. One alternative was derived, Alternative A, essentially looked

at elimination of the Clear Creek MOA, which is located here on the map. Okay. The reason why, is that the Blair Lakes Range that that air space abuts up against in the northeast is what would be called a controlled range. The other two ranges are called tactical ranges. The difference is that a controlled range is kind of like a beginner range. We want the pilot to come in a very controlled fashion, to get in a racetrack pattern, and practice his initial learning of dropping bombs on targets by doing it in a very safe manner, very controlled. As such, the avenues that come off the range are not as important as just the basic racetrack training that we want them to achieve. What it means is we don't have to be able to come in from the northeast necessarily. We have access from other directions. Whereas in the tactical range, being they are trying to teach the pilots the next level which is flexibility, thinking quickly, coming in at different altitudes and engaging different threats that might be out there, more difficult. Again, we want to be able to have the ability to come in from varied, different directions. What this has forced is us to look closely at the need for Clear Creek MOA.

Another alternative, Alternative B, looks at the substitution of Yukon 5 to the north and Yukon 4, substituting those with Tanana MOA here to the south/southeast. The town of Tok is right there. This air space abuts against the southern border of Yukon 3, the southeastern border of Buffalo, and eastern border of Fox. This is a maneuvering MOA like these are being assessed. What this means is these aircraft, unlike the aircraft that we described in here earlier, they're simply just trying to transit to the bombing ranges. These aircraft and this air space will be maneuvering, doing air-to-air training, essentially much more complex maneuvering. If this alternative were selected, the new air space would look as follows: Again, Tanana MOA and the other two MOAs.

Supersonic operations are also being assessed in the Tanana MOA here. Again, as a maneuvering MOA and substitution for these two air spaces are also being assessed for supersonic operations. The scoping issues that were raised by the public last year are as follows: The top item here was the number one identified issue around the state. However, wildlife, recreation and subsistence also received a sizable number of comments. Now I'll turn it back over to Col. Hassan.

COLONEL HASSAN:

Now I would like to get into describing some of the consequences, or some of the potential environmental consequences that we've found from our analysis.

Before I do that, I would like to address a couple of terms that you'll see throughout the document there so hopefully it will clarify what is meant by some of these terms. Cumulative impact is basically a concept where you look at all the activities that go on within a military operations area. It's not simply a major flying exercise. It's routine training, it's military training routes, it's other base activities, so that cumulative impacts, the number that you see in there is the sum of all of the activities that go on within a military operations area. Not one discrete act.

The second two concepts are the methodology. The baseline that we started with is today's condition. That is, how we fly today, and all of the consequences were measured based on what we could do from this proposal. Secondly, standard methodologies were utilized where they exist. For example, in the subject of noise, noise studies exist. Noise studies are fairly well received by most of the academic community as well as the scientific community. There are ways that you can study the effect of noise on humans, animals, etc. However, when you look at the effects on recreation, you look at the effects on subsistence, there are not as many scientifically developed studies. What we did was we consulted with other federal agencies, other state agencies, and basically did a peer review within the academic community to test for acceptableness of our analysis. We have been told that our analysis is on the conservative side. You also will see that there are measurements made in terms of level of impact. A Level I impact was decided, that there was either no observed impact, there was none forecast or negligible impact. A Level II impact was basically an impact that occurred seasonal in nature. For example, in recreation. The majority of recreation activities occur in the state of Alaska from the early part of June through now, some time in September. So that the impacts that might be called a Level II for recreation in a specific area would not be the same in February as they would be in the middle of the summer. Similarly, if you look at wildlife effects, there are critical periods such as sheep lambing times, hunting seasons for subsistence, caribou calving times. Those are seasonal impacts that may occur, but might not occur at some other

time of the year. So those were identified as potential Level II impacts. Level III impacts were those where continual subject to noise or continual subject to our activities may in fact alter the state of that condition. So those were considered very severe or significant impacts. Of the eight categories that were identified in scoping that Major Siter just referred to, we found potential Level II and Level III impacts from our proposal in these four areas. So, what I would like to do is to show you a representative sample of what that translates into, into your particular area here and I'll ask Mr. Ham to address some of those issues.

BILL HAM:

I found that in the air space arena there were two — over on the eastern side, we'll talk the eastern side of the state here — two areas where the potential of Air Force activity, different than what's ongoing today, could increase the potential for interaction with the civil air community. As most of you know, the Alaska highway running roughly down through here, has a pretty high volume of civil traffic on it, especially in the summer months, when it's increased, the weather's better and there's more people out. And we found that the Air Force, particularly the proposal for the routine actions, day-to-day flying through there, has the potential to create a Level II impact because especially a 90-degree crossing path. Civilian traffic going up and down the highway, southeast to northwest, and the Air Force traffic predominately 90-degrees to that. Also, the routine flights along the pipeline there. Very low altitude flights checking the pipeline out has the potential for conflicting with Air Force traffic in this area.

Out in the eastern MOAs, and we're talking predominantly from about the southern half of Yukon 4, down to Yukon 3, begins seasonally in the summer months when there's a much higher volume of agency activity out there doing their wildlife counts, the outfitters and the guides, subsistence users, and just the general public going out to some of these areas such as the Yukon-Charley area, the Fortymile area, a high number of undocumented landing locations. A potential for a lot of pop-up traffic, low-altitude traffic, potentially conflicting with now, a lower MOA, and a potentially lower altitude Air Force traffic in that area.

I'll talk a little bit about the Tanana MOA. It exhibits the same problems

that would concern us in this area here along the connecting MOAs. But even to a greater extent being a maneuvering MOA with low altitude maneuvering, potentially air-to-air and air-to-ground activities. And also the fact that it would basically eliminate or close three federal airways, Victor 444, 515 and 481, to any (UNINTELLIGIBLE) traffic when it was active, gave it a Level III impact by the team.

Nearly all wildlife species exhibit the potential for Level II impacts when exposed to low altitude jet aircraft. The noise levels potentially produce at least some reaction or startle factors. We found that three particular species, the caribou, the Dall sheep, and the trumpeter swans, exhibit the potential for a Level III impact in some areas. And the caribou, the delta herd, it's a herd that's had trouble in maintaining its numbers over the years, and has economic value, both to subsistence and hunters. The potential during the calving season – what's shown on here is the winter range - the calving areas would be a much smaller subset of that winter use area. During that critical time of the year, the late spring, early summer, when the calving is ongoing, that the potential for Level III impacts and harm to that herd are exhibited.

For the water fowl, the trumpeter swan. You have a population here, the majority of the trumpeter swans in the world, a high concentration of the nesting sites. Most of the nesting sites are located under the MOAs. Along the Gulkana down here in the southern part of Fox, and also several of the trumpeter swan nesting sites existing in the drainages of the Susitna MOA, exhibit the potential for Level III impacts during those nesting seasons. Earlier in the year here, in the spring down here, in the Buffalo MOA, lasts a little bit longer in the summertime down here in the Gulkana and the Susitna areas.

Finally, the Dall sheep. In two regions, the Dall sheep, and this is the winter range as shown here. The range is the areas just north of the Alaska Range and then also generally through the four corners area of the Yukon MOAs. Concern here again was the lambing season. That season in late spring, early summer, would be a subset again of these areas that would be defined with consultation with ADF & G to pinpoint those areas where that lambing was ongoing.

Allowing for recreational resources. The potential for an Air Force activity now in two portions of the state exhibit a potential for Level III impacts identified by

the team. I'm not trying to block anybody here. Now the Yukon 3 and 4 MOAs, now potentially new lower MOAs, the Yukon-Charley area in the northern part of that region here and down to the south, the areas covered by the Fortymile wild & scenic river. And also Level III impact were identified down, potential for Level III impact, in the Fox MOA, along the Denali Highway there to the center of the MOA, along the portion of the Delta wild & scenic river that's in the eastern portion, and also the western and middle portion of the Gulkana River, down in the very southeast corner. Other potential areas for Level II impacts along the Taylor Highway here, and some of the campgrounds there. Also back into the Yukon 1 MOA today where the portion of the Yukon-Charley areas, the Steese National Conservation area, the Birch Creek wild and scenic area, also exhibit the potential for Level II impacts under the proposed action.

The subsistence area. Several areas exhibited potential for Level III and thus looked at the sensitivity of the subsistence lifestyle for these particular communities or villages and a portion of that subsistence area that was under the proposed MOAs or the existing MOAs. For Level III impacts, we identified – the Eagle Village at the very eastern regions and also the Dot Lake – the Healy Lake and Dot Lake areas here down in Buffalo MOA. Others that looked to be potential Level II impacts, up here at Circle, over here in Eagle, and down in Chicken. When you add in the Tanana MOAs to the southeast of the Buffalo area here, you expand the area potentially impacted for the folks at Dot Lake, and also you bring in the potential for Level II impacts for the Tanana (UNINTELLIGIBLE).

COLONEL HASSAN:

There are more charts and descriptions of the whole state as well as the more detailed or various species that are included and, we would like, we would be willing to, if you had any questions later on about any specific species, we would be glad to discuss them.

Now that we've identified impacts, we need to address how it is that we can continue to proceed with the proposal. And the idea is that we can mitigate it. And mitigation is simply a concept that we have training requirements and we also have a responsibility to make sure that the impacts, to lessen the impacts or to eliminate any

impacts that our flying training may have. The way we work that, we work it actually today. We start, we take inputs from you. We find out where the sensitive areas are and we work around those. For example, in the Circle Hot Springs area, in consultation with the local community, we have drawn a 10-mile exclusion zone up to 35,000 feet and we don't conduct any supersonic operations there. In consultation with the U.S. Fish and Wildlife, we have created a Keep Out Zone around the Yukon-Charley rivers, two miles either side, 2,000 feet over flight restrictions. In consultation with other agencies, we have done similar kinds of things. We even talk in terms of if we know of, where individuals have particular problems, for example, in a hunting lodge or a fishing lodge, and we know where that is, we know what kinds of impacts that we're having on those places, we can institute mitigation. We can put in place over-flight restrictions or boundaries where our aircraft try to stay away from. This is illustrated here with the bird-nesting sites as I referred to.

One other point I would like to make while I have this chart up. While we have assessed the potential impacts, as if we were flying at 100 feet, so that the impacts you see in this are based on, that you could have aircraft at that level, we do not fly our aircraft at 100 feet. The minimum altitude is 500 feet that we fly and during the normal course of training, if you looked at roughly 100 percent of a pilot's time in training, he spends 20 percent or less of that time, between 500 and 5,000 feet. The other amount of time is where he trains above that altitude. So, it's not to say we never fly low. We obviously do. But that is not the majority of our training nor do we fly or are allowed to fly below 500 feet. In sum, I would like to say that we have attempted and given our best attempts to try to interface, to interact with all of the agencies, with the public. We have reacted to your comments and concerns. We have made changes. We have started mitigation. It is in place today, and with your continued help, that is cooperation in giving us your feedback, your comments, we will try to seek the balance that we are looking for ...

(END SIDE ONE, TAPE ONE)

(BEGINNING SIDE 2, TAPE ONE)

COLONEL McSHANE:

I understand from the support people here that we need to rearrange some furniture so we'll take a short break and do that and I'll get with Sgt. Beyer and get my list of people who are going to speak here. I'll be back with you in just a couple of minutes. Go ahead and take a break.

(BREAK)

(HEARING RESUMES)

COLONEL McSHANE:

If you wish to speak, but have not yet signed up, please do so now with Sgt. Beyer, at the table by the door. Don't be shy or hesitant about making a statement. I do want to insure that everyone who desires to speak tonight will have a fair chance to be heard. We do have a court reporter with us who is getting down everything that is said during the hearing. This record will be transcribed and will become a part of the final Environmental Impact Statement and the decision package. Please help me out tonight by following the following ground rules. First, please come forward to the microphone we have here in the center of the room when I call your name. Second, please address your remarks to me. If you have a written statement to leave with us, put it in the box next to the microphone stand. Third, please speak clearly and slowly into the microphone. Even though I've called your name, I don't always get them right, so please state your name the way you would like it pronounced. And where you're from and the capacity in which you appear. If we have any elected public officials, or someone speaking as a designated representative of a group, please indicate that for us. Fourth, I'll recognize each person for five minutes so that everyone has an equal opportunity to be heard this evening. Please honor any request that I make for you to stop speaking. If you have more comments than you'll be able to present in the five minutes allocated, prioritize your comments to insure that you cover your most important points first. Fifth, if I call the name of someone who is not in the room, I'll call the name again after the next speaker. I'll call the name of someone three times. If the speaker does not appear by that time, the name will go to the bottom of the list. Lastly, I do remind the entire audience to be courteous and not talk while the recognized speaker is still speaking. I understand from the list that I have here, I do not have

anybody who has indicated they are an elected public official. Do we have anybody in here that is an elected public official who wants to speak?

Apparently not. We'll move on then to the members of the public. John Vogt.

JOHN VOGT:

Thank you. I have property in the Clear Creek MOA and also the Birch Lake MOA. Which is where I have a cabin in which I spend considerable time at. I have a letter here that I would like to leave with you here. I support the alternative of no Clear Creek MOA. I oppose Birch's conversion to a permanent MOA. Don't make Birch a permanent MOA. I recommend elimination of Birch MOA. Is what I really recommend but I know you're not going to do that. Modification of Birch by establishing two noise-sensitive avoidance corridors 5 to 10 miles wide and altitudes of at least 8,000 feet along the Salcha River over Birch and Harding Lake area. And the property I have on the Salcha is at the upper end of the Birch area. And I think that's about all; I have to leave this letter for you.

COLONEL McSHANE:

Thank you, sir. John McCombs.

JOHN McCOMBS:

My name is Jack McCombs. My mailing address is P.O. Box 71128, Fairbanks, 99707. I would like to begin this evening by first stating two complaints about the process. The first complaint has to do with changing the date of the meeting. For over a year, the meeting has been scheduled for the 29th, and a number of people here — I can count about a dozen — had planned vacations around the 29th meeting. That meeting date was changed. I think it was an unconscionable breach of public trust to do so at the last minute. Secondly, I would like to speak to the inadequacy of the maps that were provided during both the scoping and in the EIS itself. Having maps with magic marker width boundaries, on indistinguishable faded out maps, really doesn't give the public a very clear and accurate notion of where you folks want to do what you're going to do.

I would like to confine the rest of my comments to two specific MOAs tonight. Clear Creek and Birch. These MOAs contain corridors with very high

population density, for better or worse, are some of the most highly utilized recreation areas in the state. These two corridors are the Richardson Highway from below Birch Lake to Eielson and the Salcha River corridor. The first corridor, includes the Harding Lake, Birch Lake recreation areas and recreation cabins. Though the proposal and the EIS review these two areas as sparsely populated, it is not so. 1990 Census data shows 900 year-around residents in those corridors. Over 750 year-round homes and recreational cabins in there, 400 of them on Harding Lake, 120 of them on the Salcha River, and approximately 230 at Birch Lake. Birch Lake, Harding Lake and Salcha River recreation areas were visited by almost a quarter million people in 1993. This is a year-round usage on all these areas. Also, there's an assumption, an unbelievable one, that recreation is not going to be impacted there. The recreation is already impacted in that area. As I think the number of complaints received by the Salcha River, Harding Lake and Birch Lake folks will attest, as well as property damage that has occurred in those areas with sonic booms, especially in the Salcha River. To conduct daily training activities in these densely populated corridors is, in my view, preposterous. The noise associated with these activities impact daily lives and pursuits of literally hundreds of people. Not only are the lives and pastimes of hundreds of people affected, so are their pocketbooks. The FAA has long recognized the fact that property values decline with aircraft noise increases. In fact, the North Star Borough Board of Equalization, a tax appeal group here, recognized that in 1993 that Salcha River property, certain properties, had reduced in value about 15 percent because of aircraft noise.

In an effort to reduce noise and economic impact in these two corridors, and yet allow the Air Force to conduct their legitimate training activities, I offer the following two recommendations. The first is to adopt Alternative A, and that is to eliminate the Clear Creek MOA. By your own admission, you really don't need it for your training missions. Secondly, is to establish two 10-mile wide, at least, corridors, with 8,000 foot, above ground level, minimum altitudes in the Birch MOA. Real corridors, not the phony, token corridors you now have at the Salcha River that, I think, are a thousand feet, or something like that. These would be real corridors to protect those areas. The first corridor would be paralleling the Richardson Highway, basically in an east/west direction that would protect the Birch Lake/Harding Lake

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areas, probably start somewhere say 10 miles below Birch Lake. The second would be up the Salcha River. That corridor would be the same dimensions. Given the inevitable overall gains in total air space that the Air Force is going to gain in their present proposal, this doesn't seem like too much of a sacrifice to make in lieu of the net gain. Disrupting the lives and pursuits of so many folks when it perhaps really isn't necessary, I think, is inappropriate. I think the proposal that I make, and perhaps other people will make tonight, about the two corridors, will accommodate both the public and the Air Force in their training mission. It may not be as convenient for the Air Force, but in keeping with their good neighbor policy, maybe we need to consider the public as well. Thank you.

COLONEL McSHANE:

Thank you. Theodore Tisdale.

THEODORE TISDALE:

Good evening. My name is Ted Tisdale and I'm a property owner at the Salcha and Harding Lake both. I find the F-16's noise unacceptable. And I would like to support Alternative A, no Clear Creek MOA, and I would like to recommend a modification of the Birch by establishing two noise sensitive avoidance corridors, five to ten miles wide and altitudes of at least 8,000 feet along the Salcha River and over Birch and Harding Lake areas. Thank you.

COLONEL McSHANE:

Thank you. David Applebee.

DAVID APPLEBEE:

My name is David Applebee. I'm a property owner on the Salcha River and I certainly disagree with the Air Force plans to make permanent the Clear Creek and Birch MOAs. I feel that the Environmental Impact Statement does not adequately address the needs of the people who live in the areas affected. The noise pollution from jet aircraft operating near or above my property is extremely offensive and aggravating. Sonic booms not only damage the propane lights, but also crack windows. This property was purchased for recreational use and as a retirement home within a couple of years. When the military aircraft operate at levels and in the numbers as reflected by your MFE tables, any use is far from enjoyable. In fact, I find it, I put

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intolerable here, but I prefer to use your terminology: a level three impact. Military flights in the Salcha River, Harding and Birch Lake vicinity should be conducted with the 1,500 plus property owners in mind. We are tangible and we're worthy of some consideration. To treat the area as marginally populated and force upon us conditions that will lower quality of life as well as property values, certainly is not in keeping with sound environmental management. Having served ten years in the United States Navy from 1963 to 1972, I understand the need to train. And I believe that a high level of training can be accomplished and the impact on our lives and property can be lessened if some alternatives are considered. Ideally, no flight activity in the northeast corner of Clear Creek MOA, and the entire Birch MOA, would be the prescription for our noise pollution ills. However, on a realistic note, the establishment of a noise sensitive avoidance corridor would go a long way towards making life tolerable for the taxpayers and property owners who own such a small share of Alaska. The corridor should be ten miles wide with a minimum flight altitude of 8,000 feet, and would extend from the southeast side of Birch Lake running northeast, or excuse me, northwest of the Salcha River, then following the Salcha River, northeast to Caribou, and I hope this suggestion will be evaluated and the benefits to both the Air Force and the community will be considered. Thank you.

COLONEL McSHANE:

Thank you. Lloyd Welty.

LLOYD WELTY:

Good evening. My name is Lloyd Welty. I and my wife own property just southeast of the Stuart Creek Firing Range and also in the Harding Lake area. I'm also a licensed charter operator. We own and operate a business up there. I absolutely do not support Alternative A, the Clear Creek MOA alternative. And we definitely oppose the Birch Creek conversion to a permanent MOA. There's absolutely too much noise up there and I would like to invite each and every one of you folks that are sitting over there tonight, to come up there some time and have your pilots fly over that area. Particularly at supersonic speeds. It just absolutely vibrates the cabin. The customers go wild and everything else. They don't know what to do. Your ranges here, that you have, particularly on Stuart Creek Firing Range, I don't know when that went in, but

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there's sure an awful lot of noise that comes over that hill. It sounds like D-8 "Cats" coming down over there and it's just not absolutely conducive to a private enterprise up there at all. Thank you very much.

COLONEL McSHANE:

Thank you. Next I have Mike McConahy family.

MIKE McCONAHY:

Thank you. My name is Mike McConahy. I'm speaking on behalf of my family. We do own property on the Salcha River. I'm also speaking on behalf of three Salcha River property owners who planned to be here on the 29th. I went up the river and talked to them and they asked me to convey my sentiments to you. So please consider this also on behalf of Dewey Wittis, a property owner, a year round resident, a World War II marine veteran. Also, comments on behalf of Dave Miller, a property owner, Vietnam veteran, a wounded veteran, and also John Gillan, a property owner.

If you come truly with an open mind, we welcome you. When in the course of human events, our forefathers separated from England, they thought it meet and seemly to state their purposes and explain their motives and say why the power of the government is in the people and this process that allows the people to be heard will go forth. So, if you come in that spirit, welcome. If you come as a sham, on behalf of myself and the people that I mentioned, please take our scorn and defiance, our slight regard, our contempt and all feelings of ill will that are not unseemly on our behalf.

The sound of freedom is something that's a bumper sticker. I don't think that we'll hear it from you officially, but the sound of freedom really is silence. I asked an old man that comes to my cabin regularly, Dale Webb, he's a jarhead from World War II. He started at Peleliu which is the bottom of the archipelago. He was at Okinawa. He was at Iwo Jima. He was wounded. He was back in action and he stopped on August 6, 1945, when the atomic bomb was dropped. He's at my cabin and he thinks the sound of freedom is silence. And he jumps out of his skin when he hears your aircraft go supersonic.

I was at the scoping session and I would like to go on record as saying that the impact on wildlife, the impact on recreation, the impact on land use, and the quality of life, is all negatively impacted by your proposed Draft Environmental Impact

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Statement. In won't leave here merely criticizing the Impact Statement, I would like to join in the fellows that have spoken before, particularly Mr. McCombs and Mr. Applebee, and for my input on the record, I do support Alternative A, which is to eliminate the Clear Creek MOA. My preference would be the elimination of the Birch MOA and although I don't like to think myself less a patriot than those who urge an 8,000 foot corridor, I would urge a 10,000 foot corridor.

In conclusion, again, with this theory of democracy, as you know, England was beleaguered by oppressive forces that one time in the not-too-distant past, and Churchill told his people that they would fight, as you know, in the air, on the seas, in the beaches, in the villages and on the streets. Here, I think you heard the people that live in this area oppose this during the scoping process. I think you'll hear unanimous opposition tonight during the public comment process. I would suggest that you'll continue to hear from us, ongoing opposition during the time of the final EIS. You will hear opposition through the period of the ROD. You will hear opposition if it is passed as planned in the courts afterwards. Like our comrades in England not so long ago, we too will rest and we will fight this as long as it takes. Thank you.

COLONEL McSHANE:

Thank you. Ronald Bless.

RONALD BLESS:

My name is Ronald C. Bless. I'm a Salcha property owner. And I spend a lot of time up there at my cabin and I am really opposed to the noise. And I also would like to see elimination of the Clear Creek MOA and the Birch MOA. And if nothing else, I would like to see the Birch MOA as a temporary and I also, maybe if all else fails, put in certain boundaries, establish special corridors on the Birch MOA.

COLONEL McSHANE:

Thank you. Next I have Rick, I'm sorry, I can't make out the last name. Spencer?

RICK SPENCER:

My name is Rick Spencer. I'm a property owner on the Salcha River also. I was born here in Fairbanks 45 years ago actually on Ladd Air Force base which is now Ft. Wainwright. I've seen a lot of change here in the area and a lot of it due to

the military presence in the area. A lot of it is economically beneficial, of course, but as far as the recreation, and our wildlife, I think it's been really detrimental. I grew up going over and hunting on the Salchaket Slough which is off the Tanana River. Anybody going over there today would have to stop at a military police checkpoint. I now spend a lot of my time, as far as recreation, at my cabin up the Salcha and I noticed when Colonel Hassan mentioned the definition of Level II impact as that that was defined as being seasonal, I think maybe a little more research should have been done as far as the Salcha River area because most of the property owners there utilize their property year round. In January, February, there's as much use going on up there with our snowmachine as with our boats. And I think that when you say it could be a possible Level II impact, I actually think you're talking Level III. Also, when I see in the Environmental Impact Statement, significant adverse impact relating to the biological resources, I feel that's just unacceptable. I'm definitely opposed to the Clear Creek MOA and I believe the Air Force has admitted that they can fulfill the mission without that MOA. I would like to see no Birch Creek MOA, but realistically, I don't feel that would happen. Col. Hassan has mentioned that there have been efforts to, such as around Circle, to give a 10-mile zone, 35,000 foot ceilings. If some corridors could be established, I know some of the public testimony here has given definite corridors, 8,000 or 10,000 feet, but if some real effort to be made to establish some corridor that could leave the Salcha Valley and the Harding and Birch Lake areas alone, it would be really appreciated.

There's been a lot of really good comments made here tonight and I've been kind of speaking off the top of my head. But I do support just about everything that I have heard tonight. And hopefully, somebody said about this being a sham, I certainly hope this is not the case. Thank you.

COLONEL McSHANE:

Thank you. Dan Chandler, please.

DAN CHANDLER:

Dan Chandler's my name. Where you own the property, properties, I mean it really doesn't matter. We have a cabin on Harding Lake we're trying to sell, and a cabin up the Salcha River. I use Birch Lake, Harding Lake, Salcha River, the whole

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area, and wherever you're flying, a couple of years ago, I felt like a little gunboat on some river overseas or something. These things come over, I didn't know whether to gun it, kill it or bail out there for awhile. It scared the heck out of me. That's gotten a little bit better. But not good enough. I would just as soon see the Clear Creek alternative done away with. And also the elimination of the Birch MOA. I guess that's about all I got to say for the time being.

COLONEL McSHANE:

Thank you, sir. Henry Grant.

HENRY GRANT:

My name is Hank Grant. I have — my family and I have property on the Salcha River and on Harding Lake. I'm also an officer in Fairbanks Snowtraveler's and Snowmachine Association, 150 members who use the area. One of our big concerns is safety. I know we're carrying ordinances and we're doing bombings, or strafing, or whatever, and there's always the possibility of an accident travelling between any of the gunnery areas. We're not real happy with the noise. I enjoy watching the aircraft, but the noise gets to be real irritating. I think because of that, there is a certain impact on recreation and recreational values. And we were up two weeks ago moose hunting and there was aircraft activity and I didn't notice it particularly spooking the moose out of the country, but it has to have some impact on game management and on hunting in general. I noticed that that was also noted in your Impact Statement. I think we would support adopting Alternative A for the Clear Creek MOA. And because we have property in the Salcha and Harding Lake area, and because of the number of people who reside in there, I think there should be corridors established along the Richardson Highway and up the Salcha area. Thank you.

COLONEL McSHANE:

Thank you. Sandra Woodward.

SANDRA WOODWARD:

I would like to say that my husband and I own property up the Salcha River and we also live right there in Salcha and my children go to the Salcha Elementary School. And the Clear Creek MOA is very upsetting to me because of all the air

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noise. The windows, the house shaking, it's very disturbing. My elder son went to Ben Eielson high school and he said that there was times when the planes would come in and the teachers would continue on talking and he couldn't even hear. And I don't want that to happen to my elementary students at Salcha school. I would just as soon not have the traffic over there. I noticed that you said that Clear Creek or, that the planes would not affect land ownership, and it didn't have anything to do with the land. Well, it does. When all this happens with your property, when windows are shaking in your trailer, I live in a house trailer, when it starts shaking certainly this is very disturbing and it makes your property hard to resell. Your Environmental Impact Statement says that the Clear Creek area is sparsely populated. I really don't know where that information came from. I can repeat but I won't bother to say what Mr. Jack McCombs said about all the population statistics. I checked those same things out at the library on the census and it's not what I would consider sparsely populated. To me there is a lot of area in Alaska that is sparsely populated and that's not one of them. Also, it doesn't say anything about there being Level I or II potential impact for recreation in that area. Since we do have a cabin up the Salcha River and I can vouch that it is a year-round recreational area. Maybe you're not aware of it, because of the fact that the boat landing is not cleared off during the summer. But during the winter, the snowmachiners go right past our place and let me tell you that there's a lot of them, and it's used year-round.

So, I would like to say I would like to support Alternative A which is no Clear Creek MOA. And also I really like to recommend eliminating Birch MOA, but also I feel that that's probably not possible. And we know that you guys have to train. We're very well aware of that. We appreciate the military. But it would be really great if you could either make corridors or just leave it as a temporary MOA. Thank you.

COLONEL McSHANE:

Thank you. Next I have Earl and Pat Cook signed up on the same line.

Who wants to go first?

PAT COOK:

My name is Pat Cook. We have property at Harding Lake that we use,

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actually year around, and consistently in the summer. I would like to say that Harding Lake is a stopping off place in the early spring and fall for the Canada geese, the swans, the sandhill cranes and the ducks, as well as our resident people. When, this summer, I was at the lake consistently, when the planes come – the lake is like a cup with mountains around it – you hear the planes long before they come over the hills from the Delta area. And then when they come in, the noise just seems to reverberate through that lake area and it stays there, the noise, long after the plane is gone. Even if the plane is flying so high that you can't see it, the noise follows. You can't – there's no conversation possible. You can't use the phone. And I'm not subject to headaches, but I do get headaches. I appreciate the military. I know you have to train. I would like to recommend the changes that Mr. McComb and the others have recommended.

COLONEL McSHANE:

Thank you. Earl Cook. Did you want to speak at all?

EARL COOK:

No.

COLONEL McSHANE:

Thank you. Sgt. Beyer, maybe you could help me out with pronouncing the name at the bottom of the page. The first page. Hulshizer? Nan, do we have a Nan here? There is no indication whether he wanted to speak, so I'll ask... Don? I'm very sorry. I can decipher a lot of handwriting, but I'm afraid I didn't get yours.

DON HULSHIZER:

My name's Don Hulshizer. I have property up the Salcha which we go up year round--snowmachines, boats. And I agree with all the testimony tonight so far, especially on Clear Creek and maybe a corridor up the Salcha there. Thank you.

COLONEL McSHANE:

Thank you. Michael Vivion.

MICHAEL VIVION:

My name is Michael Vivion. And I'm apparently the only person here tonight who doesn't own land up the Salcha River or on Harding Lake. I do fly airplanes a lot around Fairbanks and the Upper Yukon Valley and I have some real

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concerns about the military operating areas. I understand the military's need for operating areas. One of the concerns I have though is, particularly in these briefings, the Air Force's tendency to downplay the kinds of activities that the military does conduct in a military operating area. Col. Hassan indicated one of the primary reasons, the only one he mentioned actually, for establishing permanent MOAs is to allow them to be mapped. Well, in fact, the reason they need to be mapped so that private pilots such as myself can find them on the maps is because they allow the military to operate, or the military operates in those areas in excess of 250 knots which is prohibited below 10,000 feet for the rest of the world. So, there's a different kind of operation that goes on there. And we need to be aware of that. For civilian pilots, that's very important to know. Their aircraft are purposely and for very good reasons, camouflaged and they're very hard to see. We're flying fairly small, fairly slow airplanes, and sometimes we're pretty hard to see. So there's some obvious, potential conflict. I would encourage the Air Force to spend a little bit more time discussing in detail the kind of activities flying so that people can make rational decisions on what they think the impact may be. I think that the Air Force really needs to get innovative and I would encourage you to do so. I realize that in most areas where you have established military operations areas, they're a block of airspace. And they have a floor and a ceiling and four walls, if you will. I would really encourage you to consider alternatives such as corridors, as had been mentioned by some of the folks on the Salcha River and perhaps in other areas. Corridors not only to protect the important recreational areas, boating areas, but corridors to allow civilian pilots to transit these areas with at least less risk of a midair conflict with military aircraft. I'm not sure how you establish those -- I'm certainly not an air space expert -- but I think if the Air Force got creative and got innovative in this process, you could actually perhaps improve your training scenarios by providing the air crews with some challenges: avoid this corridor. Call a corridor whatever you like. Instead of being a recreational corridor, perhaps it's a large area of gun placements or surface-to-air missile sites or some other kind of scenario so that the pilots could be more challenged. I think you could do that in a way that it would not only protect some areas for those civilians in the area, but maybe, provide an even more realistic training environment for your pilots. I think

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you need to be very sensitive to wildlife, recreationally, and also subsistence users. One of the things I noticed in your areas of potential impact, is that the Black River which is up in the Upper Yukon Valley, just south of Chalkyitsik, it's heavily used for recreational and subsistence users. This is a very important wildlife area. I saw no indications of any level of impact there. I'm sure there would be some.

Col. Hassan also indicated and emphasized that there would be no new activities in these MOAs. If the MOAs were established as permanent MOAs versus temporary MOAs. And I understand that the temporary MOAs have been in place for some time. But the permanent MOA would allow year round use, and as most people in the room, I think know, that at 40 below 0, sound travels much further, it propagates much better than it does in the summer. So the noise concerns, particularly for wildlife, can be very dramatic in the winter. The northern MOAs could seriously impact many areas in the Upper Yukon Valley. No one has really spoken of that here tonight. I'm sure when you go to some of the other areas up in the Upper Yukon, those folks will speak to you on that subject. It appears to me also that the process has not been well advertised. You have a mailing list of 500 people. I believe there is somewhere on the order of 40,000 people in Fairbanks, I suspect and there's quite a few more than that if you include North Pole and the Salcha. I suspect that there's far more than 500 people that have a very definite interest in this process.

Finally, you know, we tend to think of the impact on humans, on us, and that's understandable. But think about if you were a moose, or a loon or a duck or a trumpeter swan, and you were out there in one of these areas, what impact that noise might have on you. I realize that sometimes it's hard to imagine, but if you can imagine a cow moose who's pregnant in March, and just come through a winter where it's routinely and regularly 60 below 0 and have to deal with that. They have to avoid predators of several flavors, not the least of which is us. And now they're just barely hanging on at the tail end of the winter and we start a major flying exercise. That can be a pretty serious impact, I think, on an animal such as that and any of these animals. So I would encourage you to consider wildlife because I think these activities do have more dramatic effects than any of us realize. Thank you.

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BIO-007

COLONEL McSHANE:

Thank you. Calvin Powell.

CALVIN POWELL:

Well, I understand that everybody needs proper training. I spent over 30 years before retiring. I have seen what poor training and improper training can cost in lives. I'll go along with that point. The other point is that they had been put here—I left Fairbanks, Alaska, in 1973 and moved to Harding Lake. I established my summer residence into a permanent residence to have peace and quiet in my retirement and declining years. Well, here 20-some-odd years later, it isn't working out this way. We do need the noise level abated somehow or other. My house is built out of oak. It has a two inch (UNINTELLIGIBLE) inside for vapor barriers, three-eighths plywood (UNINTELLIGIBLE). I have eighteen inches in the ceiling and three-quarter acoustic tile. I have double three quarter plywood, 50 pounds felt between, with twelve inches insulation and sealed underneath. And when I get rattled out of bed before 7:00 o'clock in the morning, the noise level is a little high. Therefore, I think the best thing is to either (UNINTELLIGIBLE) a corridor or eliminate the ideas. (UNINTELLIGIBLE) on me. And I'll give you an example, sir, of what I mean. I've got seventeen overseas stars and I understand what it is to be in a bad situation with poor help or untrained help. But, in my declining years, I'm well up in my 70s, I would like to enjoy it with a little less noise, and I thank you.

COLONEL McSHANE:

Thank you. Paul Baker.

PAUL BAKER:

My name is Paul Baker. I have a residence out at Harding Lake. Been out there for about 40 years. Been a Fairbanks resident for about 44 years. I'm an old Army Air Force veteran stationed in Whitehorse with the search and rescue during World War II. So I've done a few turns around the state of Alaska and I certainly recognize the need for training and I support the military. However, I too, am getting ready to retire and have built a home out at Harding Lake. And am looking forward to peace and quiet. I admit it's not as peaceful out there as it was 30 years ago, but we have more recreational equipment, and snow machines and we have seadoos and we

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have military and civilians out there recreating and I think that's fine. And I appreciate the military support in Alaska. However, I would like to see less probably activity over the Birch and Harding Lake areas. Because many of us have built and gone out there in the winter and summer for peace and quiet. And I hope that we can cooperate somehow, the both of us, meaning the military and the civilian people. And work out something that would be fair to everybody. I don't quite understand what the Colonel said about certain activity that would be necessary approaching the Eielson runway. It appeared that there was some type of maneuvering going on to scope out the airfield or plan some form of attack. Well, Harding Lake is only about 10 or 12 miles south of the end of the runway there. Those planes fly awful fast. And I'm concerned about that. Just as some of the others are here about noise over the approaches and so forth. So, I would support some way that could be worked out to eliminate as much activity as possible over the highway south of say Birch Lake at least ten miles and certainly over the Harding Lake and Birch Lake and the Salcha areas. I think that's about all I have to say. Thank you very much.

COLONEL McSHANE:

Thank you. Beth Gian—? Beth Graham, I'm sorry. Beth Graham here? (UNINTELLIGIBLE)

KEITH GIANNI:

My name is Keith Gianni. I'm a doctor as you can...(laughter). There are two sides to every story. Some of you older folks who complain about the noise, I guess I could say you should be thankful you can hear.

As I say, I'm a doctor. I've been in the military. I spent three years at Ft. Wainwright. I have — our family has property at Harding Lake as well as the Richardson Clearwater which is across from Shaw Creek. I'm a pilot, too, and I do a lot of flying in that area. And I have to oppose not only the Birch Creek MOA, but also the Eielson and the Clear Creek. I fly about 100 hours every summer which may not be much to you folks, but for somebody who does that in his spare time, it is. I have a son who probably flies about the same amount in the same area. I fly frequently in the summertime twice past Eielson and it often is interesting — it's always interesting, sometimes pretty exciting. And over at Richardson Clearwater, too, it's not unusual

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(Cont.)

to have A-10s just buzz right down that creek and for us to pop up out of there and there are several of us pilots in there, that also is very exciting. I can't imagine more flight activity in that area. And I can tell you that if these MOAs are established, it's going to be very hard for us to keep the rules.

I'd like to make another comment and I don't know if there's anybody from the news media here, but I've thought for many years, we do a lot of flying between here and the peaks of the Alaska Range down there. And that area down there is as beautiful as the country can be. And it is almost identical to McKinley Park in many different ways. There's the Polychrome Pass in there and beautiful lakes, and of course, all of the glacial rivers, too. What's tragic about it is that a lot of that area is just bombed out. And whoever did that years ago, and I hope it's not going on now, ought to be ashamed of themselves. And I've always wanted the national news media to take some video cameras up there. That's been desecrated. Surely one of the most beautiful places in this country has been desecrated, and I hope that the bombing, that if the bombing is continued, that it is confined in a much more narrow place. And I surely hope that if these areas are approved, that somebody takes a very close look at what's been done over there.

COLONEL McSHANE:

Thank you. Bev Byington. You've indicated you may want to speak?

BEV BYINGTON:

Hello. My name is Bev Byington and I'm a full-time resident at Harding Lake. And I guess I want to start by thanking you for your response. Three years ago I was living in my home on Harding Lake and a friend of mine was ill with cancer and bedridden and passed away several months after my communication with Captain Turner, the public relations person at that time, about the noise level and about the effects that it was having. I must say that I pleaded with him not to hear me as a complaining resident, but to imagine what it's like to live there and to have valuable training for us, too, readiness for retirement and all those sorts of things. But I remember marking the number of times the planes would go over three years ago and it would start at 6:30 in the morning and several times not end until 8:30 at night. And I asked him, I said, "Do you mind if I keep charting this because I said I'm trying

very hard not to get angry because my friend is bed-ridden and it is our permanent residence." And I want to thank you because I know that Captain Turner did communicate the little marks that I made and there were changes made and I want to thank Captain Troeber and Tech Sgt. Beyer for also putting up with my comments this year. I called. I tried very hard to be patient and accept what is reasonable and when it is not acceptable, and when it is unreasonable, I call and I chart it. I want to use some of your terminology that I heard tonight. That sometimes you said it is very valuable for you to fight against each other, sometimes to get to know each other better. You were talking about I believe Elmendorf or wherever, whatever, and maybe that's what we're doing. Maybe we have to fight against each other to get to know each other a little bit better. When I call, I say, "What do you hope to do in your retirement years?" And many of the people that I talk to in your area say, "Well, I'd like to fish and I'd like to have a little peace and quiet." And I find it a little ironic that here we are having very valuable training in our years, we're told not to have stress in our lives. We're told to have recreation and to find good, healthy leisure. And many times, I must say, that I feel like I'm in a war zone. And I feel that the war time stress feeling comes to me when I have prepared and as have many of the other speakers prepared to have a place where we can retire and be peaceful. But I do want to thank you because there have been changes made. And it is noticeable. But there are a lot more changes yet to be made. I definitely encourage you, as have the previous speakers, to keep trying to help us because I agree that the noise level is very severe and not acceptable, many, many times. I'm used to the planes now, you know living out here year round. Even when I drive to town and I do that often, I might be driving down the highway and I'm startled. And I'm a fairly stable person, but the noise even driving in a car can startle you. And I can only urge you to think about it in your own personal lives. You say that a supersonic will only have a brief upset of a few seconds. In our personal lives, if we have an upset in our personal home, and it may be just a brief few seconds that we encounter words or somebody on the street if they don't like the way we're driving or whatever, the upset doesn't last a few seconds. It lasts a long time. And that's why the health people all over are telling us, ease up on the stress and learn how to deal with things. And I have certainly tried to do that. Like I said,

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recreation to me is working hard too over all the years to get valuable training and I hope that we can have peace time together and that you will continue to hear us. I don't think that this could possibly—I mean I'm going to have trust and have faith that this is not a scam, because I have had evidence in the last three years that each of you have tried to hear us and I have so much respect for the folks who came here years and years and years ago. I hear their stories about how they brought their children in before the roads were there. I know the man who cuts my wood and so on, and we have to listen to people who have lived here for a long time and have worked hard. And I do ask you to listen to me, as well. So you say you don't want negative training in your field. Well, we don't want negative training for our lives either. And so I guess I'm just going to say that I hope we can continue to look at what is compatible for us, but the noise level is—I don't know—you seem to be able to figure it out a lot of the time, so I just urge you to keep figuring it out because I know you can make it so that we can live at peace, all of us, because I think that's what we're all here for. Thank you, very much.

COLONEL McSHANE:

Thank you. Vernon Hines.

VERNON HINES:

My name is Vernon Hines and I represent -- I'm on the Board of Directors of the Salcha River Property Owners. And I represent the majority of the property owners in this particular situation. I've forgotten my glasses and I can hardly read this. The main three items, the main three items that we're against. What we would like to do is get the Clear Creek MOA deleted and we have correspondence saying that the Air Force could do this. Delete the Birch MOA and as an alternate, keep it as a temporary with an expiration date. And if nothing else, on an alternate, establish restrictive corridors along the highway and up the Salcha River to cover the populated areas. And these could more or less be mitigated, create a minimum altitude of at least 5,000 foot above ground level. And the third thing is -- this has been requested a couple of times, the Air Force has requested the Federal Fish and Game to do the survey and they did do it, is do an accurate count of eagles' nests and peregrine falcon nests on the Salcha River, and for myself personally, I pretty well know that

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there are enough eagles' nests compared and Peregrine falcons' nests on the Salcha to create a 2,000 foot umbrella all the way down the Salcha River from at least the south fork of the Salcha to the highway. And this 2,000 foot above ground level was stated in the original assessment. That's what they would maintain. The Federal Fish and Game did their survey, I called them later on and asked how many eagles' nests they found. They said they found one. And I know of four within my area and I know of many others on the river and there's enough, that if you were every five miles it would probably be difficult to go up and down, whatever elevation from 2,000 foot. And then there's a few peregrine falcon nests. And something I'll mention which is not in this letter which I'll leave with you from the Salcha River property owners, I noticed that on some of your charts there, there was no impact level for the Salcha River area as though it's not on there. I noticed there was no impact level as far as the game goes, mentioning moose. Caribou migrate through, they're there part of the year. Moose are there year round. And anybody who is a pilot, a small aircraft pilot who's been around for a while, moose calving season, just a fly by at a fairly low altitude over a cow moose when she's had her calf and you know she's had one, I'm sure you'll have many people say they've seen them stand up on their hind feet and paw at the airplane. So there's one thing on the game which was not even mentioned here and also the impact level to do with that and the impact level to do with the Salcha River area. It seemed like there were farther out areas which there is probably very little population, but in our area, there is considerable population and as far as expressing the noise level of the jets, I've had it said to me before from the Air Force that "You don't have to tell me how noisy it is," and there may be someone here that if they weren't there, they've heard about it. The graduating class of the Air Force Academy, that they had a fly by, they got a little bit too rambunctious. I believe there was two or three million dollars of damage done and window breakage on that one. That's all I have to say. Thank you.

COLONEL McSHANE:

Thank you. Sgt. Beyer, do you have ...

SGT. BEYER:

We have one more person (UNINTELLIGIBLE).

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MARGE HILCOSKI:

Good evening. My actual physical location is seven miles south of the Eielson Gate. I have my place of residences there and I have two rentals so I guess I'm considered to be in Salcha Valley. Anyway, I've been out there since 1975 and as far as any, uh, I'm gonna applaud the Air Force for a couple of things here. The tankers certainly are staying up at an altitude now where they're not coming right down on top of my house. But I think they're probably at an 8,000 foot level now because we hardly know that they're around. But since the A-10s and the A-16s have--well, the A-10s are gone but the A-16s have come on line--I will say it's noisy, but they don't fly as early--this 8 to 4 that they're contemplating for this coming months wouldn't be a bad idea if they were as quiet as they were today. I've had fighters going over my place of residence today several times. I hardly knew they were up there. They were at an altitude that made it very comfortable on noise levels down on the ground. I was outside a lot today. And that is my -- I own the complex there and I've had a lot of dealings with the Air Force, uh, but if they get down--what was it sir, did you say it was going to be? 240 feet? That they were going to fly? No? The A-16s?

COLONEL McSHANE:

The F-16s? I thought they said 500 is the minimum.

MARGE HILCOSKI:

Would they stay to that and above?

COLONEL McSHANE:

500 and above is where they operate is my understanding.

MARGE HILCOSKI:

Yeah. Okay. Well, don't grin at me. I don't know anything about the Air Force. (LAUGHTER)

COLONEL McSHANE:

As I told these folks before you came, this is not my proposal. I'm running the hearing. I'm trying to answer the question.

MARGE HILCOSKI:

The noise level was great today. And if they could keep it like that, I would have no objections from the 8:00 to 4:00 time schedule at all. Thank you.

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SGT. BEYER:

Sir, I do have one more speaker. Dave Gianni would like to speak.

DAVE GIANNI:

Good evening. My name is David Gianni and I'm from -- my dad is the one who spoke earlier that you can't even read his name. Anyhow, I would like to speak as, just only a couple of other people have, as a pilot in the area here. And I know that most of the people who have spoken so far have been property owners at Birch Lake or Harding or the Salcha. And I spend a lot of time out in those areas as well and I know that it can be bothersome and it alarms a lot of people from the noise; and that doesn't bother me quite so much as when I look at a map and I do a lot of flying here in the Interior and I haven't been a pilot a really long time, but I do enjoy flying, but I look at that map and of these proposed areas. It really ties up most of the eastern Interior of the state. And from looking at that map between say Fairbanks or Eielson for that matter, and Delta, all the air space in there is tied up and I know that there are times that as pilots we can go through those areas, but if there is flying to be going on on a pretty much day-to-day basis there, between 8:00 a.m. and 6:00 p.m., that really makes it difficult for us pilots here to have some time to fly and I like to do a lot of fishing and hunting and things. And most of that flying I do is south of the Tanana River and currently there are some areas that are restricted there and we always stay away from those places. But with these new proposals it ties up most of the area, almost the entire area south of the Tanana River, all the way to the Alaska Range and beyond that. And just if I might relate a personal story. Just yesterday -- I think it was yesterday -- I was flying out in that area and was landed at a lake to do some fishing and I didn't end up catching anything, but that's beside the point -- and as I was out, this lake which is near the border of one of the restricted areas. I was out there standing on the pontoons of the plane, fishing and all of a sudden I heard this deafening roar come over one of the ridges and it startled me so much I almost fell in the water off the plane, but then for the next hour-and-a-half to two hours, there were F-15s flying above the lake and I think that was just the edge of their operation area, but I heard it said earlier that they're only allowed to fly 500 feet above the ground, but I can tell you I know they were 300 feet or less because later when I could finally get out of

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there, I went up to see, you know, about what level I could tell where they were at from the small ridge, and they were 300 feet or less above the ground. And I was pinned down on the lake. The fishing was so bad I wanted to leave, but I couldn't leave because all these jets were coming in there at high speed. And I'm just concerned — I'm only in my mid-20s — and I hope I'm going to be flying for quite a few years to come and if your proposals pass, it really affects the flying I'll be able to do in the future. Thank you.

COLONEL McSHANE:

Thank you.

SGT. BEYER:

Sir, I have one more person. Matt Baker.

MATT BAKER:

I guess the reason I'm last is because I changed my mind from a "no" to a "yes." Thank you. Looking at the map here, I have a cabin two miles downstream from the pipeline on the Salcha River and looking on the map here, that just about puts me right in the common boundary between Clear and Birch MOAs. I have an interest in both of those. But I agree with almost everything that's been said tonight. The elimination of Clear and creating a corridor through Birch is probably about the only practical way to go out. But I would like taking back off a little bit a number of years ago, I used to live in South San Francisco about two miles off the end of the International Airport runway. And all conversation went on in about half-sentences. Get the first part of a sentence then have to stop and wait for the jets to go by and then finish up the other if you was outside. After a while, you got used to it. It was going on day and night. I moved in there, rented a house, no problem. It was my own fault. We got used to the noise. They say everybody here in this area can get used to the noise. If you live in New York City, noise is no problem. You lived in it all the time. No problem. Fish and game, there's a question whether noise affects the animals or not. We cannot say conclusively that it does. However, a number of years ago, I read an experiment of where they took pregnant mice and raised them with a telephone that would ring every minute, once a minute. The result of—the newborn mice were born with birth defects. We don't know over a long period of time what the noise effect is going to be. If you are someone who lived in New York or Washington, the

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Salcha River, Harding Lake, Birch Lake areas, are sparsely populated. If you're an Alaskan, these are heavily populated areas. As far as the noise goes over this, I think you should take a lot with real caution, what is going to be the long term effect on the noise. We don't know for sure what the high levels of noise will be.

I would be in favor of eliminating Clear Creek MOA and, as a practical thing, creating a corridor of at least ten miles and probably 8 - 10,000 feet above the Richardson Highway. I thank you.

COLONEL McSHANE:

Okay, there are numerous other individuals who didn't sign in here tonight indicated when you came in you didn't want to speak, but anybody who changed their minds and desire to make some comments? Anybody who has not spoken already? This is your chance to make your comments. Okay. If there are no more comments, we will conclude the proceedings at this time. Please remember that you do have until 31 October 1994 to submit written materials to be included in the transcript for the hearing and those written materials will be fully considered and addressed in the final Environmental Impact Statement. Once again, all written statements or comments are given equal weight. Officials of the Air Force do appreciate your efforts in coming out tonight and contributing your views at this public hearing. We thank you for your courteous attention. Please be assured that the Air Force decision makers will carefully consider each viewpoint raised here tonight when deciding the ultimate course of action on this proposal.

Thank you. This public hearing is adjourned.

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CERTIFICATION PAGE

I, Arlene A. Stoelting, do certify that this transcript is an accurate record of the proceedings as recorded.

Dated: 9/30/94

Arlene A. Stoelting
Arlene A. Stoelting

Subscribed and sworn to
before me this 30 day
of September, 1994.

Samuel M. Davis
Notary Public

My Commission Expires 8-1-97

Addendum:

The tape and transcript of the Fairbanks MOA DEIS hearing were reviewed beginning with the public comments and the testimony given by Mr. John Vogt and continuing through the end of the hearing. Corrections were made accordingly to the electronic (disk) and hard copy versions.

Karen McKibbin
Spectrum Sciences and Software, Inc.
November 15, 1994

DRAFT
ENVIRONMENTAL IMPACT STATEMENT
Alaska Military Operations Areas

Transcript of Public Hearing

Monday, September 19, 1994, 7:00 p.m.
East High School Auditorium
Anchorage, Alaska

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COL. MIKE McSHANE:

... to get here if they're running a little bit late. Welcome to the public hearing on the Draft Environmental Impact Statement for the Alaska Military Operations Areas. I want to thank you for coming out tonight. I do solicit your comments and involvement at tonight's hearing. For those of you who have not had the opportunity to review the Draft Statement, it will be summarized later in this presentation. I'm Col. Mike McShane and I will serve as the presiding officer for this public hearing. I am a military judge for the Air Force and I am assigned at Randolph Air Force Base, Texas. I have not had any involvement in the development of the Draft Environmental Impact Statement and I am not here as any type of official advisor to anyone concerning this proposal. My role is limited to simply insuring that we have a fair, orderly hearing and that all who wish to be heard have a chance to speak. I expect that there will be a variety of comments expressed here and I ask that you treat one another with respect and courtesy.

I would like to introduce the briefers for tonight's meeting. Col. Rich Hussan, who is the Commander of the 622nd ASG, he will be giving you an overview of the Environmental Impact process and later talk about mitigation actions. Major Bob Sier will talk about the proposal and the issues raised during the scoping process and Mr. Bill Ham from Spectrum Sciences will describe the environmental consequences of the proposed action.

Now I would like to explain the public hearing process and the procedures that we will follow this evening. The Air Force has prepared a Draft Environmental Impact Statement on the Alaska Military Operations Areas. And that's this seven-inch-thick stack on my table here and this was done in accordance with the National Environmental Policy Act and Air Force Implementing Regulations. The purpose of this hearing is to summarize for you the results of the Draft EIS and to receive your comments on the Draft Statement. The briefing takes about 30 to 45 minutes and is required by law. Tonight's hearing will be in two parts. During the first part, the briefers will present information to you concerning the Environmental Impact Analysis process, reform for the Alaska Military Operations areas, and the second part of the hearing is the public participation portion where you will have the opportunity to

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comment on the Draft Environmental Impact Statement. This hearing is intended to provide a public forum for two-way communication about the Draft EIS with a view to improving the decision-making process. Your inputs provide for decision-makers with the benefit of your knowledge of the local area and any adverse environmental effects that you think may result from the proposed action or the alternatives to that action. Keep in mind that this hearing is not a debate nor is it a referendum. It is not a vote on the actions that have been analyzed in the Draft Environmental Impact Statement. The focus of the hearing is on the environmental impacts associated with the proposals being studied by the Air Force. Comments on non-environmental issues such as national defense policy should not be raised at this hearing. It will not add anything to the record and will take away time from your opportunity to comment on the Draft Statement. Please refrain from public demonstration for or against the comments as that reduces the time available for comment. When you came in tonight, you were asked to indicate if you wished to speak. After the presentations by the briefers, we will be taking a short break. Following that break, you will have an opportunity to speak, to ask clarifying questions, or both. If we have any elected public officials who signed up to speak, I will be calling on them first, followed by members of the public. I will call on members of the public in the order in which they signed up to speak. If any of you have not had an opportunity to sign up to speak, please check with the folks who are manning the desk out at the front door. If you brought a prepared statement with you tonight, you may read it out loud or leave it at the box by the microphone to become part of the record. If you do not want to make an oral statement tonight, but you would like to provide your input, you may do so in writing. For your convenience, there are written comment sheets available at the registration table for your use. Any comments that are made, whether given orally or provided in writing tonight, or submitted in writing later, will be given equal consideration in the decision-making process. However, if you want your comments to be included in the record and considered in the process, those comments must be received by 31 October 1994. Even if you speak tonight, or hand in a written comment, you still have until 31 October 1994 to provide any other additional input that you so choose. The address to where it can be mailed will be shown on a slide later on and it

will be on some of the written materials that are back at the desk there as well.

As I said earlier, all the comments, oral or written, are given equal consideration. In summary, I would like to stress that this is your opportunity to provide the Air Force with any information you may have regarding environmental factors that are unknown to the Air Force and to have input into decisions that the Air Force must make with regard to the proposed action or the alternative actions.

Now, I will call on Col. Hassan to give his briefing.

COL. HASSAN:

Thanks, Col. McShane.

COL. McSHANE:

Well, welcome.

COL. HASSAN:

We would like to take this opportunity to help focus in on where we've been in the process and where we are headed in the Environmental Impact Statement Process. As Col. McShane said, to provide an opportunity for you to give us your inputs, issues, comments and concerns. With me tonight is a ... I'd like to talk in the overview, and you've met Major Siter, and I would like to introduce several other members of the team that worked with me on this Environmental Impact Statement process. Major Siter is our F-15 pilot, operations specialist. We have with us Major Virgil Hanson, our environmental NEPA person. We have Lt. Col. Jim Conrad as an environmental advisor, and Major Brad Peck. The contractor for this effort was Spectrum Sciences, and they are represented tonight with many individuals who will be here to answer any specific questions in any of the areas that you raised in scoping that you wanted specifically addressed in this Environmental Impact Statement. Mr. Bill Ham here is the representative for Spectrum. We would like to make a couple of key points that we raised during the scoping process and these are answers to several of the concerns that were raised. First and foremost, the Air Force elected to conduct an Environmental Impact Statement and because of that, this whole activity is a proposal. That is, that it is something that we are bringing forward to you. We did that in scoping a year ago. We then took a bunch of issues and comments and concerns. We have spent the last year analyzing those. That is, those are present in

the document that you see today. But we are still more than a year away from any final decision in this process called the Environmental Impact Statement process.

The second key point is that this proposal in and of itself is not intended to, nor is it expected to, increase the overall flying activity in the State of Alaska.

The third important point is, and this is one that has been raised in many of the areas that we went to, and that is that military operations areas which are being analyzed in this document, do not preclude nor do they prohibit the public's access to this air space. When military operations areas were put into place back in 1976 in order to restrict where the military can conduct its training so that it does not restrict the public's right and access to this air space.

And finally, and most importantly, I think you will find that from the original proposal that we started off with, we have added alternatives, we have made adjustments to the proposal, already within the process based on concerns and issues that have been raised over the past year. The basic question of why we're involved in this military operations area Environmental Impact Statement has several parts to it. The first and foremost is that the Air Forces of Alaska throughout most of its history have been focused on the Cold War and the threats that have arisen because of the Cold War. We did mostly air-to-air kinds of training activities. As time has developed, and the focus of the military activity is now to pick up and deploy to hot spots around the world, the training focus, and in that in order to improve our regiments, we've got to have more than air-to-ground training activities. Those are the kinds of aircraft that we have in the State of Alaska. In order to most effectively conduct that training, we are looking to adjust the existing air space in order to better provide for that training opportunity.

The second point is, we have employed the use of what's called "temporary military operations areas" in the state. And temporary military operations areas are those that are put into place for a short period of time to allow for certain types of training to occur. Those training areas, those temporary military operations areas, are not charted on air space maps. So we feel by converting, as part of the proposal, temporary military operations areas to permanent military operations areas that will be charted on maps and that will act as an additional advisory for civilian aircraft

users so that they know where the military is doing its training.

Third, we feel very, very important and very proud of the fact that we have had a lot of up front public participation in this process. As I have already alluded to, we have made adjustments to our proposal based on the public participation sent over the past year.

Fourth, the intent to save tax dollars. By not having to go back and apply repeatedly for the same temporary air space, we have been able to cut out a lot of lengthy red tape. And in doing so, we will save over a million dollars that we spent at least in the past several years applying for this air space over and over. We are going to do it one time and this activity, look at any potential it impacts, adjust accordingly, and then we will not have to go through that process again. Finally, Alaska is in fact, a very key, critical strategic location. The world situation as it is today is drawing down forces and we have to have the maximum amount of flexibility in being able to deploy the forces that we have, either east or west. And as we draw down these forces, the small number of forces we have in Alaska become that much more critical for the national defense.

The Environmental Impact Analysis process is composed of these elements. Last year at this time, we were here going through the scoping process, letting you know what it is that we would like to do. We had launched that process, added alternatives to our document, and put together a Draft Environmental Impact Statement which is before you tonight.

We then go through a process of public hearings where you have an opportunity, having looked at the document, developed a comment as forum changed that, and we will then take those comments and adjust the document as appropriate.

The final environmental impact statement will be published some time next summer. And that document will also go out for public comment and reviewed before the final decision is made as to what approach the Air Force takes to solve these needs.

The document itself is composed of four pieces. The first part describes the purpose and need. The second is the description of the proposed action. We will take a few moments tonight to go through the proposed action so you can see again what it actually encompasses.

The third part is, what are those areas that may potentially be affected by this proposed action, and finally, the last section of the document describes in detail any potential environmental impacts that we have now identified after our analysis. And again, just to reiterate, the purpose of tonight's hearings are to inform you, to look at the potential impacts, and receive your comments. We will be going to 15 locations throughout the state. These are the same locations that we went to for scoping. We had committed that we would return to every location that we went with scoping in order to provide everybody the same opportunity to comment on the Draft EIS. These are the dates that we will be there starting tonight in Anchorage and going through the 12th of October and sweeping.

I would now like to turn the program over to Major Siter, and Major Siter will review with you the proposed action and the alternatives and also he will then deal with, or let you know about, the issues that were identified in scoping.

MAJOR SITER:

Thank you, Col. Hassan. I would just like ... is this off? Col. Hassan has very accurately covered the (unintelligible). We're here tonight about change. Already the requirements have changed radically in terms of depth and scope as well as how it influences our training program. In order to meet our various training requirements, we have to have solid training programs to do that. When we look at how we achieve training, air space is a critical element in how we achieve readiness. When we look at change, we have to start at certain structured facilities that were already in place in the state in dealing with change. The first and foremost are the bases. Elmendorf and Eielson. These are bases that have been place in Alaska since the Second World War. Additionally, we have other assets (unintelligible) bombing areas. We only have three of them and they are all located in a central area in the Eielson area. Again, these were created in the Second World War due to the location of (unintelligible) and the Fairbanks area. How far can your fighter aircraft fly when you're training? That's a critical element in determining where are the reasonable alternatives in terms of training time. For example, I'll (unintelligible) simplest instance here, the F-15C models that are located in Elmendorf. This is the business of those aircraft who go out in the military operating areas, do effective training and then return to their home

base with a safe level of fuel. The aircraft are those that involve a lot of air-to-ground training, which allow the other three aircraft, the F-15E Strike Eagle, the OA-10s and the F16, all require on a day-to-day basis, as well as during exercises they may (unintelligible) range, that's predominantly what they need to do in terms of training. And so, they have to be able to perform (unintelligible), maybe train (unintelligible) and come home. Fortunately, the (unintelligible) MOA and then go to a bomber range and then come home. Fortunately the Strike Eagles have a good fuel (unintelligible) possibilities for reaching that air space. Other federal agencies have structures that also have been in place for a long time, the FAA's Federal airway system (unintelligible) structure for over 18,000 feet. This system was created throughout the United States in the 30s and 40s. Next Slide. The reason why the (unintelligible) air ways are very important is that when, in 1976, as Col. Hassan stated, these green areas are the permanent MOAs that were created in 1976. And they are located, to the extent possible, away from (unintelligible) airway structure so that both systems would not interfere with each other. What it's giving the state is a good array of air space around the state because as everyone here knows, the weather can vary widely around the regions of the state. It gives the military a good flexibility to deal with the weather, even in the winter. What it also does is allow us to disperse our activity a little bit so that we're not concentrating all our flying in one area.

Next Slide. The temporary MOAs. Since 1976, the (unintelligible) temporary MOAs have been in place. We have been using them throughout this State, not just in these areas here, but throughout the state. (unintelligible) we have proposed tonight are here. But we have had to arrange throughout the state from various types of exercises for various purposes. Again, trying to deconflict them away from the (unintelligible) airway structure. And again, (unintelligible) interference. (unintelligible) proposal (unintelligible).

And I haven't seen this in a while. The first component was to take a look at modifying existing permanent routes. I'll start with the southwest and work in a clockwise fashion. The first MOAs for consideration are NAKNEK 1 and NAKNEK 2. In the past year, aircraft located at King Salmon (unintelligible) right here, were removed and put back at Elmendorf. The reason being was, again, decreasing budgets,

reflection of change in the Cold War. (unintelligible) A lot of the activity in NAKNEK was the aircraft, on alert in King Salmon, flying and using that MOA. We do have in use (unintelligible) day-to-day is that Elmendorf aircraft would do routine training there. What has happened is that use has gone down. In the past, it's been a 10-hour operation. We're cutting it down, looking at the present time it's five hours, so a 50% reduction.

The next air space is STONY B. At the present time, the floor at STONY B is 3,000 feet above the ground. Whereas, the floor in Alpha in the east here, STONY A, is 100 feet above ground level. At the present time, STONY air space, this whole complex here, is the only air space in the State of Alaska that is (unintelligible) with electronic tracking systems. And what it does it tracks pods that we put on the aircraft, we track its altitude, (unintelligible), air speed and it's all satellite relayed back to the video station back at Elmendorf. What the role of video taping is so pilots can come back and sit in their (unintelligible) and learn a lot more than they can learn in the other spaces because the whole (unintelligible) It's a very valuable air space. What we're looking to do is just lower the floor (unintelligible) to again, enhance the training value of that air space.

Meanwhile over the Interior. Galena Air Force Station had aircraft (unintelligible) for decades. Those also were removed and handed back to Elmendorf. However, Elmendorf does not accept that airspace (unintelligible) routine basis. And as such, the primary use has gone down quite a bit. What it means, is we do not need the air space day-to-day on a routine basis. But, every once in a while, because you never know what's going to happen to the world situation. We want the ability to deploy our aircraft (unintelligible) from last year. And we try to (unintelligible) the base back up to full status. And then usually we'll activate the (unintelligible) MOA (unintelligible) do some training. And then a few days later we close down the air spaces and let everybody (unintelligible). (unintelligible) Whereas the floor of YUKON 2 is (unintelligible) 100 foot above ground, but we don't train at the surface and all we're going to do is to raise the floor so it matches the YUKON (unintelligible).

The next (unintelligible). Convert existing temporary MOAs to permanent MOAs. I will further divide the airspace into three groups. The first group is the group here in the north/northeast, in the YUKON 3 here, YUKON 4 here and in YUKON 5 here. This air space adds (unintelligible) air space to allow us to conduct major flying exercises. And major flying exercises are the most demanding training exercises that we do. It's kind of the culmination of the building block approach to our training and in order to be able to replicate some of the combat situations our younger pilots might face, we have to create an arena that allows us to do training on a large scale. And again, if we were trying to do the major flying exercises in the smaller permanent air space, it would not replicate that type of training. What it also provides is the ability for us to fly and disperse our activities which led to the present-time all the routine flying must be concentrated in this area here.

The second component is down here. This is called FOX MOA. And what it provides, which is unique to all the air spaces in Alaska, including existing air space, it's the only air space that can be jointly reached by both Eielson and Elmendorf. Earlier I showed you a picture where there were circles around both of the bases. This is the only area where those circles intersected. What does it provide? What it provides for us is the aircraft can go Elmendorf to Eielson, different types of aircraft, can go out to the same airspace and fight against each other. The ability to do that is very important. If all we ever do is fight F-15 versus F-15, it will severely limit the ability of our pilots to learn. Now the pilots fight in adverse air, the different aircraft, but also, what are the strengths and weaknesses of those aircraft. In addition to what we would like to do, we would like to (unintelligible) the aircraft in the same team. We call it composite force training, and by flying F-15g with F-16s or OA-10s, is what the guys learn is what are the strengths and weaknesses of these other aircraft. What is the language, terminology and coordination requirements of these other types of aircraft. We would like to learn that in peace time versus learning it on the fly in wartime.

Next slide. The last component is that middle area near as possible to the south. I call this the connecting air space. One of the facets of our existing air space it unduly hampers our ability to train and meet our regular requirements is that here's a permanent air space and here are the three bombing areas. The Yukon range here,

(unintelligible) and the Oklahoma range. The aircraft that are coming through YUKON 1 (unintelligible) the Oklahoma. (unintelligible) As they reach the southern border of YUKON, they have to stop their training, because they've reached the end of the MOA. They're still a ways away from the bombing, so they have to climb up to get in radio ... radar contact with the military control (unintelligible) and get permission to proceed onto the range. It's very unrealistic training. As pilots enter the target area, in an actual combat situation, they are not going to climb. What it does, it creates a lot of negative training and artificial limitations. So what we want to do is allow the aircraft to come through at subsonic speed, strictly to transit through these air spaces. These are not large (unintelligible) either in terms of (unintelligible) and a lot of this air space is compressed vertically as well as (unintelligible) to do maneuvering and that's not its purpose. Its purpose should be (unintelligible) the range in a realistic fashion. And then (unintelligible) flexibility. Realize today, the ability to do this can only (unintelligible) flying exercises.

The third component. (unintelligible). These are very small airspaces in the immediate Eielson Air Force Base area. I have superimposed here YUKON 1 that's a permanent airspace that exists today as well as CLEAR CREEK here. (unintelligible) and it butts up against Eielson Air Force Base. Its purpose is (unintelligible) limited, and we don't need this every day, but on occasion we like to do airfield attacks of the base. The purpose of that is, not only do pilots need to train for combat, but our medical people do, our maintenance people need to, as well as our civil engineers who rebuild runways and that type of thing. We integrate them all into the exercise as one team, and so we have to have an air space access to do that safely. And that's what this provides.

The third (unintelligible) allows access to the (unintelligible) from the northeast quadrant. And the (unintelligible) is a control range and the other two ranges are tactical ranges. The control ranges are more for beginners who will do (unintelligible) and it's kind of a race track. Whereas the tactical ranges, they (unintelligible) aircraft would be going and coming into the target area in many different directions, like they do in combat, so that they can practice. So it's kind of an (unintelligible).

The fourth component is to assess any environmental impact (unintelligible) supersonic operations and (unintelligible) additional MOAs. In Alaska, supersonic operations are (unintelligible) selected MOAs. (unintelligible) The areas of the proposal that were assessed were FOX north to the south here, YUKON 1, 3, 4 and 5. When the Air Force (unintelligible) supersonic operation, it will last anywhere from a few seconds to upwards of a few minutes. Why do we do it? More times than not, it's at very high altitude and there's a reason why. As a pilot trying to shoot an air-to-air missile, the higher and faster you fly your aircraft, the further (unintelligible) the further your missiles can travel. Well, adversary air forces around the world have also learned the tactic. It's true and they do the same thing. And so, we practice on trying to give the offensive advantages as well as trying to engage other air forces using that tactic. Again, (unintelligible) 30,000 feet, 40,000 feet. Next Slide.

Conduct joint (unintelligible) bomber training. Joint training is a training with the air components of the Army, Navy and the Marines. We've been doing this for over ten years and it's helped us out a lot in terms of making sure our equipment are compatible, our tactics are semi-compatible, and we talk the same language. We have done the same thing with our Allies. (unintelligible) For example, the British have come up to Alaska the last couple of years as well as the Canadians (unintelligible) our exercises. What has it done for us? (unintelligible) for example is in Desert Shield/Desert Storm, we formed a coalition Air Force that performed very (unintelligible) with excellent coordination, and obviously the air war worked very well for that coalition Air Force. We would like to continue to work and improve the relationship we have with our Allies.

Next slide. And the last we conducted the six major flying exercises per year. We presently are authorized to do six, so this proposal does not decrease or change the number of days or the number of exercises. To date we've done up to four a year. This year, we're doing three, next year we are proposing three more (unintelligible)

Next slide. (unintelligible) air space. Excuse me. As part of the scoping process, alternatives were offered and assessed for reasonableness in using a (unintelligible), and one of the resulting reasonable alternatives was Alternative A.

What that alternative was was the removal of CLEAR CREEK MOA which is located here and again, (unintelligible) against the (unintelligible) range and the reason was (unintelligible) range being a controlled range and being one of the more limited ranges. (unintelligible) So, we're assessing that fully. Another alternative is Alternative B. What it looks at is the substitution of YUKON 5 up to the north here and YUKON 4 here, substituting in the TANANA north here which butts up against the southern (unintelligible) YUKON 3, the southeastern border of BUFFALO and the eastern border of FOX. The air space, these air spaces are maneuvering air spaces and this one is being assessed as a maneuvering air space as well. In terms of new air space, if Alternative B were selected, the new air spaces would be FALCON, CLEAR CREEK and the TANANA north.

Supersonic operations, YUKON 4 and 5 are being assessed for supersonic operations, so this alternative is also being assessed with the TANANA being looked at for supersonic.

Next. As far as the scoping issues, next slide please, the primary item that was identified, air space management and aviation safety. With the understanding that wildlife, recreation, and subsistence also received sizable numbers of comments and suggestions. I'll now turn it back over to Col. Hassan.

COL. HASSAN:

Okay, we've talked about the issues of the proposal itself and now I would like to get into what we identified as potential environmental impacts from the analysis. And to introduce the subject, I would like to first introduce you to some terms. The first term is cumulative impacts. Cumulative impacts is a concept that when you look at any region, any particular military operations area, you take into account all of the various activities that may take place in that area so that you add consequences or potential consequences of each individual action that occur within that area. Additionally, we looked at any indirect effect on those nearby areas that activity within this military operations area may influence and so, combined, this is what cumulative impacts are assessed in our analysis. In order to better understand some of the nomenclature that is used in the document itself, I would like to talk about the methodologies that we use. The baseline methodology is the conditions as they exist

today, meaning what are the effects as viewed in the environment as it is today. Secondly, we use some standard methodologies, that is in the area, for example, noise, there are many various models that exist in the scientific community and we applied noise, and standard noise models which are referenced in the document. Additionally, in many of the other areas, such as wildlife, recreation, subsistence, those are areas where there are not a lot of published standard methodologies. Our team sought out the advice of many different academic institutions, in terms of— we talked with other federal agencies. We've talked with some of the local public in terms of some of the Native groups with dealing with subsistence and developed methodologies to try to predict what kinds of impacts we would have. As part of that process, we have funded various studies to be done in the area of wildlife, specifically both with birds, raptors, moose, caribou and those studies are ongoing and we look forward to continuing monitoring of those different activities. You'll see that each of the areas that there are potential impacts are quantified in levels of impacts. Level I impact is, in our definition, little or no impact on that affected environment. Level II adverse simply means that if you look at an area, a Level II impact tends to be seasonal in effect, that is an affect may occur to a wildlife, an affect may occur to recreation, an affect may even occur to aviation safety during a specific season of the year. However, it is still an adverse impact. A Level III impact, where we call it significant adverse, is this is where potentially over time you could actually affect the environment. You could affect the wildlife, you could affect the status of an underlying recreation area, and I think you'll find within the document that we have found Level II and Level III impacts, and that's what we need to discuss. Of the eight areas that you saw Major Siter refer to that came out of scoping as what was concern to the public, four of those areas had identified either Level II or Level III impacts. Those were as listed here. What I would like to do is just take a few moments and give you a representative sample of what that actually translates into. And I'll ask Mr. Bill Ham to introduce one of each of those areas and show you what the Level II and Level III impacts actually translate into.

BILL HAM:

What I would like to do is use the Key to Level IV/III impacts that were identified by the team throughout the process and try to explain a little of the rationale behind some of those decisions. In the airspace arena, as many of you may know, there is a large amount of traffic that is potentially seasonal, again, from about the June-to-September time frame. It begins to pick up along the Alaska Highway between Fairbanks and Delta Junction, on down through the Richardson Highway, and even further east towards the Northway area. With the establishment of those connecting MOAs that Major Siter alluded to, and also through the use of those on a routine basis, the team assessed that in the region of these connecting MOAs, there was a potential for a Level II impact, crossing traffic that the Air Force would be flying generally perpendicular to the civilian traffic through that region. Also, up in the areas of the YUKON 3 and 4 MOAs, now is a new lower floor that is currently available with the temporary MOAs and during that same general time frame, the June-through-September time frame, when there is a higher volume of traffic going into a lot of uncharted and undesignated locations, along the Fortymile (unintelligible) rivers and up into the Yukon-Charley area, we're talking predominantly the YUKON 3 and the southern half of the YUKON 4. The potential for a lot of pop-up traffic and interactions, the Air Force aircraft was there and again the team assessed that a Level II.

When the TANANA MOA was assessed under the Alternative B, and that's this region here, it possessed a lot of the same potential impact where also highlighted by the connecting MOAs, the (unintelligible) BUFFALO MOA (unintelligible), but two other factors really drilled the impact level on the TANANA MOA. The first being that it was now a (unintelligible) MOA which was quite different than a transition MOA and potential for air safety was assessed at much higher. The accident potential was assessed at a higher level and also, for FAA purposes, the establishment of the TANANA MOA to effectively close down three victor routes in that area, No. 444, (unintelligible) 481, that head down towards Glennallen and come up from the Northway area. So that was given a Level III impact for those reasons. Also, on the western regions, quickly, the problem that we don't have today in the existing

conditions, but with the potential for lowering the floor in STONY B, a large amount, well not a large amount, but an amount (unintelligible) and Kuskokwim River areas, generally during the summer months that leads to a potential for a Level II impact in that region along STONY B.

The last slide is on the wildlife. I would like to hit on a couple of key wildlife issues. Potentially, wildlife could be affected by the noise level generated by low altitude military aircraft at different altitude ranges. Different animals seem to be susceptible to different decibel levels. Generally, the larger those animals, such as the caribou and the moose, at the (unintelligible) and the air speed, the Air Force suggest operations that would generally start becoming potentially susceptible to at least a Level II impact at around 2,000 feet, I'm sorry, around 3,000 foot of altitude. Another animal such as a Dall sheep, is potentially susceptible as far as a lower decibel level, and that's approximately 5,000 feet at some of the air speeds that the Air Force had planned on flying at. And some of the fowl species such as the peregrine falcons, the trumpeter swans, generally start reacting to noise levels around 2,000 feet. There were three potential Level III impacts were identified. The first one here is in caribou and this is the Delta Caribou herd area. The Level III. Down here the Oklahoma range and the EIELSON connecting MOA. And this generally was identified during some stressful periods, the calving season, generally running from the late June time frame. That appeared to be the most stressful period for that herd. It's a general herd that's been declining in numbers over the years for a lot of various reasons and it has a high economic value, of hunting value, and the team, in this general winter grazing area would be, in the middle of that area, would generally be the calving area and the team assessed that as a potential Level III impact.

In the areas of the Dall sheep, next, I'm sorry, I'll go to the trumpeter swans. In Alaska, is a high percentage of the total trumpeter swan nesting sites in the world. There are three main areas that were identified as potential Level III impacts. Up in the BUFFALO, along the Tanana River, in the BUFFALO MOA; during a nesting season, this is a little earlier season up there, it's in May to June. The seasons get a little bit later down here in the southern half along the Gulkana. Some of the nest sites in the FOX MOA, along the Gulkana River and all the way over here to the

SUSITNA MOA. Those seasons run a little bit later in the summer. Potential for Level III impacts during gestation time of the trumpeter swan.

And finally, the third of the wildlife species, the Dall sheep. There were two main herds that were identified as potential for Level III impacts. The herd areas just north of the Alaska Range up in the northern part of the FOX MOA and in the southern part of some of the connecting MOAs. And also in the Tanana Hills area, up here in the YUKON 1, 2, 3 and 4 MOAs. Generally, again, with the lambing season the most stressful season on an animal, and potential for Level III impacts in those lambing areas. Now this is a much bigger area here shown in the range area. The lambing area would be a small area (unintelligible).

In the recreational areas, two key areas up in the eastern side that were identified as potential for Level III impacts were the Yukon-Charley area in Charley Rivers area and the Fortymile Rivers area over in the southern part of YUKON 3. Also, some of the other recreational sites along the Taylor Highway, some of the campgrounds there. Also, in the YUKON 2 MOA, potential Level II impacts were identified along the Steese National Conservation Area, along Birch Creek Wild River, and also even some of the eastern portions of the Yukon-Charley that extend into the YUKON 1 and 2 MOA.

Down in the FOX area, the potential for Level III impacts were due to the nature of the trails along the Denali Highway there, there's 20-some-odd trails that come off the highway there. The potential for Level III were assessed by the team, and also along the western and middle forks of the (unintelligible) river, even a portion (unintelligible) FOX MOA (unintelligible) river on the eastern edge of the MOA were all assessed a potential for Level III impact.

Under the Alternative B, due to the actual layout of the TANANA MOA, these impact levels tended to increase a little bit along the river system. Now that the TANANA MOA potentially could come over to the FOX MOA and grab a bigger portion of the Gulkana down in the main stem. There are other trails along the Richardson Highway there. And also you get deeper into the recreation areas and the campgrounds along the Taylor Highway.

And finally, subsistence. Several potential villages and communities were assessed at a Level III over here on the eastern side because of the amount of subsistence area in the MOA. The Village of Eagle Village and also down in the BUFFALO MOA area, the Dot Lake and Healy Lake Villages, have a potential for a Level III impact and this predominantly in the August and September time frame. You're talking about this time, is the main moose hunting season for these villages. If they were exposed to any kind of a large volume of flying such as a major fly exercise, the team assessed it as a potential for a Level III impact for those villages. Under Alternative B, the potential for those impacts spread down into, again, the TANANA MOA and now you're getting down into also the Tanana, the Tanana community would potentially be due to some subsistence hunting up in that area, and also, you'd span with potentially

(END OF SIDE A)

(BEGINNING OF SIDE B)

all have predominant subsistence use areas out here. In the fall time frame is predominantly moose, and also for the Sleetmute community in the spring.

COL. HASSAN:

We wanted to give you a representative sample, not only to orient you to what we've identified as impacts, but to tell you that we were sincere in our effort to attack this problem and to identify those potential problems. We are now left with how do we deal with that? And one way that we can deal with any potential effects that we may have is the concept of mitigation. The purpose of mitigation is basically allows us to hopefully balance our training needs with any potential impact that exists. We do that today. We have in place a noise-sensitive list, and as Mr. Ham referred to, we have already in consultation with Native groups and with some of the state and federal agencies, and the Department of the Interior, excluded certain times like the first few weeks of September when we will not fly any major flying exercises. We also have in place areas where we have worked with the U.S. Fish and Wildlife Service, and we have areas of overflight, for example, where we will not fly less than 3,000 feet over certain sensitive areas. We will not fly over sheep lambing areas or caribou calving areas during those sensitive times of the year. So, we have in place already,

what we call a noise-sensitive list and we have an active program of interaction with not only federal agencies, but with the public. We also utilize techniques such as in the area of Circle Hot Springs where there were some complaints from the public about noise on the human habitat. We put into place exclusion areas where we will not fly. We even go as far as integrating that kind of activity into our exercises by putting threat emitters or the presence of a threat emitter in that area and therefore the pilots will not even fly anywhere around that area. So, we have an active program in place, but what we need to do is get in these new identified potential impacts, is work with you and identify those things that we can that will help reach the balance that we seek. For example, just to highlight graphically, what I'm talking about here, we are assessing the, in this Environmental Impact Statement, down to 100 feet. We do not fly at 100 feet. In fact, the aircraft that are stationed in Alaska, can train to 500 feet, but that is a very small percentage of their training. What we actually do is about 80% of our training exists well above 500 feet, but we are assessing what the impact would be down to 100 feet and we also again, have most of the flying activity of well above 500 feet. Represented here is just an example of what I talked about. Even though an F-15 pilot, for example, may be authorized to fly down to 500 feet, what he would do is given this noise-sensitive list that exists, that is represented by a lodge, for example, he would have two miles, either way exclusion around that, and a 1500-foot minimum overflight of that particular activity. The bird nesting sites is the thing I referenced, for example, of the peregrine falcon area. Again, in consultation with the U.S. Fish and Wildlife Service, we had put a 2,000 foot floor over that particular area. We have a challenge here and the challenge to seek balance is represented here. Those of you may or may not know, two-thirds of the national parks and refuges that are in the United States, exist in the State of Alaska, and over 85% of the wilderness areas in the United States exist in the State of Alaska. As you can see superimposed here are all of those areas in red. Our training areas are in green and those areas that we share with these treasures are in yellow. So far, we have tried to work responsibly with the public and the other federal agencies to reach that balance, but we continue to need to refine that, we continue to need your help to make that balance a reality. And in sum, we are committed to that and we're committed to listening to your comments, so I

will leave the address if you want to at a later date submit written comments to us and I'll turn the hearing back over to Col. McShane.

COL. McSHANE:

Thank you, sir. What I need to do at this point is take a real short break. I need to get with the folks who have been doing the registrations, to see who I've got who signed up and we'll get back together in just a couple of minutes to start the public comments section. Let's take a break now.

(Break)

Okay, we can get back and start up again. This is the public comment portion of the hearing. If you wish to speak, but haven't signed up, please do so now with the people at the door. Don't be shy or hesitant to make a statement. I want to ensure that everyone who desires to speak tonight will have a fair chance to be heard. The hearing is being recorded and the court reporter will be transcribing this and it will be in the record of this hearing and it will become part of the final Environmental Impact Statement and the decision package. Please help me by following these ground rules for the hearing. I'll be calling on people in the order in which they signed up. Please come forward to the microphone when you are called. Please speak only after I've recognized you and address your remarks to me. If you have a written statement, you may drop it off in the box next to the microphone. Please speak clearly and slowly into the microphone. State your name, your city and the capacity in which you appear. If you are an elected public official or speaking as a designated representative of a group, please indicate that for us.

I think the rest of my remarks are not really necessary tonight since we do have a rather small crowd. Let me start out. My sign-up list here indicates the first speaker is Cliff Eames.

CLIFF EAMES:

Mr. Chairman, am I recognized now? Thanks. My name is Cliff Eames. I'm with the Alaska Center for the Environment in Anchorage and I guess I'm speaking for them this evening. I'm not quite as well organized as the earlier presenters. Interesting contrast. But I'll do my best. We have not yet reviewed the items and I'll get to that in a second. I've taken a look at the Executive Summary. We have been a

party to comments prepared by somebody else at the scoping stage, that were fairly detailed, and attached to those comments that were signed by six or seven conservation groups were some earlier comments on your, I think 1993 EAs that were prepared by the Sierra Club Legal Defense Fund who represents us in these issues. So, we have gotten some detailed comments on the record and we'll do that again in writing. My oral comments this evening will be, I think, extremely brief, although I've said that before and disappointed people. So we'll see what happens. Our primary concerns probably, although I hate to say that, because I don't mean to diminish the importance of a number of the other issues, but as conservationists we're probably focusing on effects on wildlife and effects on local residents, cabin owners and wilderness travelers. And I'm not going to spend this evening very much time at all on the wildlife issues. It looks on the face of it as if a reasonable job has probably been done in identifying those species which are most at risk through your designation of some Level III impact areas and some Level II impact areas, and I have also found over the years that wildlife issues are likely to be more adequately addressed by other members of the public, and in particular, by state and federal resource agencies since they are likely to be, one, a little bit more easy to objectively identify although that's not really the simplest thing in the world. And secondly, it's probably politically a little bit easier to advocate for the protection of fish and wildlife in Alaska than it is to advocate for the protection of wilderness travel and quality of life for remote residents and remote property owners. So I see more of a vacuum with regard to that second category of issues that we would attempt to fill. I think it's understandable, but ironic that we see the Air Force desires to performing a substantial amount of military training in Alaska. I think one of the Air Force's goals might have been to find the part of the country that was relatively sparsely populated in the attempt to minimize the impacts of the noise and the lower flights on the large numbers of people. Ironically, of course, and I know you're aware of this now, if not before, ironically not only many Alaskan residents, but many tourists come to Alaska exactly to escape the sort of noise and visual impacts and reminders of human aggression and war that are created by substantial numbers of military training flights. So we, perhaps more than people in other parts of the country, are likely to be distressed by your proposals, and in fact, we are opposed to the magnitude of training

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flights that do take place in Alaska. And I should say, in that regard, that I would set a different baseline than I believe you have in your EIS. Again, I'm not terribly well prepared. I looked at the Executive Summary very briefly and not the full EIS, but we argued, and will continue to argue, for example, that the military training routes and major flying exercises that were authorized by EAs a year or so ago, were illegally authorized, that they should have been wrapped into a comprehensive environmental impact statement. I'm not certain about when the temporary MOAs were all authorized, but it's possible that those also should have been analyzed comprehensively. The point that I would like to go back to is the baseline prior, for example, to the closing of our base in the Philippines. At that point, a few years ago, before we expanded training routes and flying exercises and MOAs and that's what we will argue in our written comments and that possibly what the Sierra Club Legal Defense Fund will argue. I don't know. I can't speak for them. I would mention also at this time, and I'm not going to spend much on time on substantive comments, that you were ... I did find the briefing very helpful. Sometimes, I get impatient waiting for a chance to testify, but there were some interesting points raised in the briefing. I found one of the later graphics on shared space to be an interesting one. Potentially, a persuasive one from the standpoint of the Air Force. If you look at this state as a whole, it really didn't look, I guess, as if there was all that much shared space and that there were lots of federal conservation system units which were totally affected according to the graphic by the overflights. I did find that to be a bit misleading for a couple of reasons at least.

1) I don't believe you have your military training routes on that graphic. I think just the MOAs were there. And secondly, and this is especially important to me, since I work almost exclusively on state land use issues as opposed to federal land use issues. I think your graphic probably displayed it, I could be wrong, it might have had other ones, probably displayed the federal conservation systems units. I'm not sure if it included state areas like the Nelchina Public Use area, for example. But there are not only, of course, land areas that were designated by the U.S. Congress as special areas, but also areas that have been designated by the state government. And beyond that, areas that are totally undesignated, that recreational property owners and local residents live in. Areas that are remote from our cities and towns that they have very deliberately

PRO-001
PRO-002

ALT-001
ALT-002

LAN-003

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moved out to either a temporary or a full-time basis, making some sacrifices to do that. Some economic sacrifices and some social sacrifices. And so for those people, whether we've got a federally designated wilderness or national park, they're affected and your graphic doesn't show that.

We would like to see a wider range of alternatives developed. You've got your no action alternative, which again from our standpoint, wouldn't be too much of an alternative cause you have to go back a few years to find your true baseline. But probably most everybody in this room recognizes that it is extremely, extremely rare for a federal agency doing an environmental analysis to choose the no action alternative. It's legally required that it be examined, but it's, as a practical matter, rarely very realistic. I suspect that's the case this time. You've got your proposed action and then two other alternatives. One of them seems to be not terribly significant from the public standpoint--your Alternative A. Again, this is just a very superficial remark. The second one might be a reasonably different alternative since you're attempting to remove some of the impacts from an important federal area, the Yukon-Charley. We would have liked to have seen a couple of alternatives that had far fewer impacts on wildlife, recreation, wilderness, aesthetics, local residents, remote property owners, the tourism industry, and so on and so forth. We don't really see that. I don't think that we would be, in fact, I know that I would not be comfortable with any of the alternatives, even no action alternative, for the reasons that I have stated. I'm not sure that that range of alternatives is broad enough to satisfy NEPA. You should stop me if you want to stop me, I am going on longer than I thought I was going to.

I was disturbed in looking at the Executive Summary. I spend a fair amount of time on wilderness issues. It's a very controversial issue in this state. But an awful lot of people live in Alaska or travel to Alaska because of its wilderness. Although I don't really think it's done cynically, if you look at the major tourism operators--the operators that bring in huge bus loads of people that don't really get out into the wilderness--they market Alaska as a wilderness and it's Alaska's wilderness and wildlife which makes it unique. I grew up in New Jersey. I was surprised to see that wilderness wasn't a category of its own, that was analyzed. When I looked at the page that described some of the scoping, you appeared to have pulled wilderness and

aesthetics. Aesthetics being extremely important to us also, because the state's natural beauty is exceptional. The natural beauty of the whole world is--was--exceptional. We have degraded a lot of it now. There's less of it degraded in Alaska, which is why I single Alaska out. But then looking at the impacts on what you're calling, you fold into land use, which is a term I use a lot that's a pretty bland term. It kind of leaves you cold in this context. I didn't see any description of potential adverse impacts on either wilderness or scenic beauty in your environmental impacts section. Under land use, all you analyze are 500 or 600 residents I think adjacent, or mostly adjacent, to Eielson, maybe Eielson and Elmendorf Air Force bases. I recollect Eielson. Since I haven't read the EIS, I don't know what the EIS itself says about wilderness or scenic beauty, but I think that if you're gonna summarize what's important to Alaskans and the potential impacts to what's important to Alaskans and to tourists that you need to highlight wilderness and scenic beauty and it's far from being highlighted. It's not even mentioned in the Executive Summary.

A few, kind of quick procedural things to close up. One of them isn't. I haven't read much of the public record during the scoping comment period, but I did receive a copy from a colleague in the National Park Service comments which you might know were fairly extensive. They did a great job, a lot more work, certainly, than I've failed to do so far on this issue. What I would only say is that 95% of those comments, I think, could probably apply to 95% of the remaining public lands that would be affected by these exercises. And you should consider seriously how those might apply, not to just National Park Service lands, but to other designated and undesignated public lands. I see that as kind of a model for your good scoping comments. Although, for all I know there could be better ones out there.

We were disappointed not to receive copies of the EIS ourselves to review. Now again, I work mostly on state land use issues, so I don't know for certain what other federal agencies do, but I'm not aware of another federal agency that doesn't make copies of their draft EISs available to groups which have displayed enough interest to comment or come to one of your public meetings. Or at least, not necessarily mail them out originally, but to make them available if the request is made once the DEIS has been released. It's not real easy for people to spend as much time as you

have to spend at one of the local libraries to review a document of that size and you can't share it with people who might want to drop into your office to talk about it (unintelligible). It's not clear to me why an agency that seems to be as relatively well endowed as the Department of Defense, when it comes to budgets, doesn't do that when lots of other agencies do. I was also disappointed by the use that the Air Force made of the Technical Review Committee. I was on that committee. We met once during the scoping phase. That was a helpful meeting and I'm glad I went to it, but I think it could have been much more useful if you had used the Technical Review Committee the way lots of other agencies use advisory committees. And that is bring them in on at least a somewhat regular basis when getting down to really important parts of your planning process like the preparation of alternatives. And your potential adverse impacts on the resources. But to set it up just once and then not use it again, it seems to me it looks like more of a public relations ploy than of a sincere effort to get interested people involved at all deeply in your planning. We also raised quite a stink about this originally. It still bothers me. We were disturbed by the fact that the public was not allowed to sit in as observers at that Technical Review Committee meeting. With most governments at any level, local, state or federal, as aware these days as most of them are about the importance of open government and open decision making, to not even let people come in as observers during an advisory board meeting on an issue that's important to a number of people, struck me as being really unreasonable, and I would hope that in the future you would seriously consider letting the public come in and observe. I'm not aware of any other technical review committee or advisory board or whatever that holds meetings that doesn't let the public come in and observe their business. I apologize for taking so much time. I thank you for giving me the chance, and again, I enjoyed the briefing and I did find it very helpful.

COL. McSHANE:

Thank you. I will next call on Elizabeth Hatton.

ELIZABETH HATTON:

May I proceed? My name is Elizabeth Hatton. And I speak for myself. I'm not involved with any group that wants to comment on this particular subject. My interest is I've been living in Alaska for a very long time now and I have spent quite a

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lot of time in both the—we live over in the—SUSITNA and the FOX areas. I guess I will begin the commenting on the supersonic, the flights as I understood the presentation and by looking at this booklet, the plan is to increase supersonic training in five areas, including some areas that are over wildlife preserves. I believe the booklet calls them recreational preserves, but they are wildlife preserves. And then in this section when you talk about mitigation. I just want to read this paragraph to the rest of the people that are here because I think that it's an amazing paragraph. It says, "While sonic booms have been included in the impact analysis as an aspect of aircraft noise (unintelligible) and play a role in the prediction of some of the Level III impacts, they are not addressed in the proposed mitigation. They are a very minor factor in the total aircraft-generated noise and are extremely unpredictable, often not reaching the ground at all or great distances from the point of origin and the disturbance is similar in effect to thunder, which would be more common than sonic booms by orders of magnitude."

Well, I think whoever wrote this, a number of persons, I feel really sorry for them that they are so removed from the natural world that they really think this is true. 'Cause those of us that have been out in natural areas and hear the sonic booms (unintelligible) to thunder, they're terrible things, and I think they must be terrible for wildlife; they're certainly terrible for people. So, this kind of paragraph makes me wonder if the folks in the Air Force really lack the experience that some of us who live in Alaska have and the experience of natural settings and if that's true, it's tragic. In any case, they're wrong. This is in error and it lays open the question the value of the impact statement, in my mind. I would like also to speak to a couple of specific places in the areas that I do know—to have a Level III and II effects on trumpeter swans in the SUSITNA and FOX areas to me is totally unacceptable. And also these overlapping areas where there are a lot of preserves and parks. I think it's unacceptable to have the Air Force have training there and I know you don't want to talk about certain things in your ground rules but I guess I don't agree with all of your ground rules and I would find out that some of these so-called permanent MOA areas which were established back in 1976, have not been reviewed as far as I know by any environmental impact statement and certainly any that the public has been allowed to see and so that's our experience with permanent areas, that once they're permanent,

NOI-002

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they're natural sacrifice zones and we don't get to comment on them. And so the public is going to perhaps not be terrifically supportive of more permanent designations based on previous experience with what was being called permanent. And I think I'll just stop with the comment bit. That last slide that showed the park lands with (unintelligible) expressed that the underlying — perhaps suggestion — that we have more than enough park lands here. Rather than questioning the amount of park land I wonder if we should question the appropriateness of the Air Force in Alaska rather than the park lands in Alaska.

Thank you.

COL. McSHANE:

Thank you.

Folks, that was it for folks who indicated they wanted to speak. Two individuals signed up to speak. That's why I didn't cut anybody off. Is there anyone else who didn't originally sign up to speak who has changed their mind and would like to speak tonight? This folks is your opportunity. Think about it for a few moments. Colonel?

COL. HASSAN:

I would just like to offer that if there are any groups that would like to get a full copy of the whole document (unintelligible), we sent out 150 copies of the whole document and 750 copies of the Executive Summary and be more than willing (unintelligible)

COL. McSHANE:

Thank you. Since we don't have anybody else indicating they want to speak, I'll go ahead and conclude the proceedings at this time. Please remember that you do have until 31 October 1994 to submit written materials to be included in the transcript of this hearing and those written statements will be fully considered and addressed in the final Environmental Impact Statement. Once again, the oral and written statements or comments will be afforded equal weight. Officials of the Air Force do appreciate your efforts to come out tonight and contribute your views to this public hearing. We thank you for your courteous attention. Please be assured that the Air Force decision makers will carefully consider each viewpoint raised here tonight when deciding the

BIO-014

OTH-014

ultimate course of action on this proposal.

This public hearing is adjourned.

CERTIFICATION PAGE

I, Arlene A. Stoelting, do certify that this transcript is an accurate record of the proceedings as recorded.

Dated: 9/30/94

subscribed and sworn to before me this 30 day of September, 1994.

Sandra M. Madsen
Notary Public

My Commission Expires 8-1-97

Addendum:

The tape and transcript of the Anchorage MOA DEIS public hearing were reviewed beginning with the public comment and testimony given by Mr. Cliff Eames and continuing through the end of the hearing. Corrections were made accordingly to the electronic (disk) and hard copy versions.

Karen McKibbin
Spectrum Sciences and Software, Inc.
November 21, 1994

MEMORANDUM FOR RECORD

10 November 1994

SUBJECT: MOA/DEIS Public Comment

1. Mary & Jim Odden of Lake Louise called the noise complaint toll-free phone line with comments on the MOA/DEIS at 0915 hours on 10 Nov 94.
2. They had not reviewed the entire proposal at the Glennallen repository, yet. But had input. "Deeply oppose the plan to create a MOA in the Lake Louise area. They feel the Air Force has enough MOAs. They (the AF) can go the extra distance to Delta to use that area. Feel it would adversely affect operations at their private airstrip. They often fly back and forth to McGrath, to use the area for hunting and fishing. They usually fly 500-2000 AGL, but do fly as high as 5000 AGL - depending on winds. Worried about the impact on fish and game in the area. They have had several close encounters with military aircraft; Blackhawks following the terrain too closely near their home, F-15 and C-130's flying dangerously low. Definite potential for accidents. When they've spoke to AF people on the MOA issue, the AF people were surprised to know a lot of people lived in the Lake Louise area."

3. The Odden's address is HCO3 Box 8762A, Palmer AK 99645. Phone number is (907) 822-3727.

4. Caller requested a copy of the Executive Summary. Forwarded request to Jim Hostman.

Anne M. Proctor
ANNE M. PROCTOR, SSgt, USAF
NCOIC, Public Affairs Directorate

Dear Mayor Hanson,
10/31/94

I am highly opposed to upgrading 74,650 square miles over Alaska to a military airspace. I believe it would have devastating effects on wildlife and many recreational facilities. As one of our nation's few remaining wilderness areas I am convinced it must be protected from such an invasion

Yours respectfully
Francis Pullman

023

HC 01, Box 1709, Glennallen, AK 99588
 Jutta Kerneke
 TEL: 907-822-3250
 FAX: 907-822-3250

November 7, 1994

Major G. Virgil Hanson
 Chief Environmental Management
 U.S. Air Force
 611 ASG/LGV, 5800 G Street, Suite 203
 Elmendorf AFB, AK 99506-2150

Dear Major Hanson:

I am a resident of the Lake Louise area and have decided to join the community, as well as the Copper River Valley Chamber of Commerce, in going on record as -

- being against the Air Force's attempt to make a Permanent Military Flight Training Area (MOA) north of Lake Louise, and
- supporting the "No Action Alternative" to keep the area as a Temporary (TMOA).

This decision has come in response to a proposal by the Air Force to make a large area north of Lake Louise into a permanent training area, called FOX 1. The new boundaries of FOX 1 incorporate much of the Copper River Valley that is home to large numbers of wildlife habitat. (1) The trumpeter swans have many nesting sites in this area and their nesting period extends from April 1 through August 31 - they could be permanently disturbed by the increased noise levels and supersonic booms. (2) The Nelchina and the Delta Caribou herds migrate through the area and spend much time year-round grazing. Although the Air Force has said it would not use the area for two weeks during hunting season, please note that the hunting season actually stretches from the 10th of August through the 20th of September and for the winter hunt from the 1st of January through the 31st of March.

My personal concern and worry is about the effects of increased maneuvers and the use of supersonic fighter planes, engaged in mock combat, would have on our quality of life, impact on private pilots and commercial operators in this area, and most of all, impact on the wildlife habitat.

At the public hearing held in Glennallen on September 28, 1994, the company responsible for the Environmental Impact Studies acknowledged that they had either obtained comprehensive or conclusive information on private property and cabins within FOX 1, nor are they familiar with the extent of recreational use by private citizens and commercial operators in this area. They also failed to acknowledge the importance of the Nelchina Caribou herd which is the third largest herd in Alaska.

For at least the past 10 years, none of the combat troops sent overseas have been drawn from Alaska. The present system of FOX 1 as a temporary training area seems to be working. A change to an unregulated permanent status might have serious biological, physiological and economic consequences for the Lake Louise area and the entire Copper River Basin.

Sincerely,

Jutta Kerneke

Jutta Kerneke

BIO-009

REC-004

LAN-003

024

Knikk Canoes and Kayakers
 P.O. Box 101935
 Anchorage, Alaska 99510
 November 2, 1994

Department of the Air Force
 Pacific Air Forces
 611 ASG/CC
 5800 G Street Suite 203
 Elmendorf AFB, Alaska 99506-2150

Dear Sirs:

Knikk Canoes and Kayakers (KCK) thanks you for the opportunity to comment on the Draft Environmental Impact Statement (DEIS) for Improvements to Military Operations Areas (MOAs) in Alaska. With more than 200 members, KCK represents a significant cross section of paddle sport recreationists in Alaska. Ideally, the membership would prefer not to see the MOAs increase in size. However, KCK recognizes the Air Force's mission and the need for additional training space.

We believe the Air Force's intent is to expand and request that our concerns be given consideration in the final selection and operations of new MOAs. KCK finds the DEIS deficient in the scope of rivers and lakes addressed. Only those rivers designated wild, scenic for recreational and those in federal and state preserves are considered. Waterways in eastern Alaska, such as Beaver Creek and the Chatanika, Nenana, and Susitna rivers are not discussed.

REC-005

In the DEIS it is unclear whether consideration is given to recreational boaters in existing MOAs. Since selection of the no-action alternative, no new permanent MOA, is unlikely, KCK finds Alternative B to have the least impact on recreational boaters. We would like to see the operational floor along recreational river corridors be raised to 5000 feet rather than the proposed 3,000 feet, from May 30 through October 1. This action would increase the noise reduction from 37 decibels (db) to 41db, or 10%.

Similar to military operations, recreational boating in Alaska is frequently a logistic exercise that takes months to plan. KCK would like a least six months notification before major flying exercises (MFEs). Notification in December is preferred for all summer training. KCK then would publish this information in its newsletter so that boating vacations could be planned for an appropriate time. Alaska's rivers and lakes are truly a national treasure; residents from the lower 48 take years to plan a once-in-a-lifetime trip to raft, kayak or canoe in Alaska. The Air Force also should consider notifying national periodicals, such as Paddler and Canoe with MFE schedules. Notification of local boat guide services also should occur. This notification could be extended to hunting, fishing, and naturalist magazines such as Field and Stream and Audubon.

OTH-014

Thank-you again for the opportunity to comment on the DEIS. We hope this letter will assist the Air Force in developing a Final Environmental Impact Statement that is mutually beneficial to the Air Force, our country's defense, and the users of Alaska's treasured outdoors.

Sincerely,

Brent Schaffer

Brent Schaffer
 President
 Knikk Canoes and Kayakers

MEMORANDUM FOR RECORD

21 October 1994

SUBJECT: MOA/EIS Public Comment

1. A Mr. Robert Goodman from Lake Louise called the noise complaint toll-free phone line with comments on the MOA/EIS at 1245 hours on 21 Oct 94.
2. He reviewed the proposal at the Glennallen repository. He said "I don't want the Lake Louise area to become a permanent MOA. I don't want a MOA there at all. I feel it will upset the peace and tranquillity of the area. This area is brimming with critters (then listed about a dozen of species) and it (MOA) would be detrimental to the wildlife. It's a big world, why don't you go the middle east, like Iraq, or out over the Beiling Sea."
3. Mr. Goodman lives on USS (plot) 3497 Lot 25. His mailing address is 457 N. Gulkana St., Palmer AK 99645. His phone number is 746-1345.
4. Mr. Goodman was polite and patient with my transcribing his comments. I thanked him for his input and explained that it would become part of the ROD.

OTH-014

James M. Proctor
 JAMES M. PROCTOR, SSgt, USAF
 NCOIC, Public Affairs Directorate

McMahon Guide & Flying Services

Hailey McMahon
 P.O. Box 284 - Oakton, Alaska 99586
 (907) 822-3441

October 19, 1994

Mr. Jim Hostman
 611 ASD-LGV
 5800 "G" Street, Suite 203
 Elmendorf Air Force Base, AK 99506-2150

Dear Mr. Hostman:

It has come to my attention that the Air Force wants to implement an MOA here in the Copper River Basin. Specifically called the Fox and/or Tanana MOAs they would lie directly in an area that I have flown as an air taxi operator for the past twenty plus years. And I don't mean occasionally. I fly here on a regular basis year around. (Described very roughly it is an area from Lake Louise north to and including the Alaska Range. Specific east, west boundaries to depend on which particular proposal is adopted.)

It's not enough that the Air Force is building their HARP experiment within 8 miles of my primary airstrip which will most likely interfere with my flight routing and radio communications to the east. Now the plan is to usurp the airspace in the other direction, to the west of my house. This is not acceptable to me. (I would really like to use stronger, more descriptive adjectives!)

AIR-008

I have already encountered military aircraft several times in and out of the proposed MOA at low levels and wondered what in Hell they were doing there. Recently on a telemetry flight I looked out my left side window and saw what looked to be an F-15 coming toward me at roughly my level. I estimated him to be 2-3 miles away and closing fast so I altered my course. I have had similar encounters at very low levels of flight in past years. I had assumed that those flights were unauthorized.

AIR-016

The area being proposed for the new Military Operating Area is used extensively by several air taxi operators such as myself and has been for years. It is also used an awful lot for private, non-commercial flying due to the relatively close proximity to Anchorage/Kasilika and because of the recreational attractions of the area. In addition, there are many, many local pilots right here within the basin who use that area to fly. Furthermore, it is not only pilots who will be affected but also the people we fly into the field as well as those who live here.

OTH-014

026

Mr. Jim Hostman

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October 19, 1994

I understand there was one local meeting held to get input from residents on September 28. I was unaware of it until yesterday. Please send me information on any MOA's proposed for this Copper Basin area.

Although I am a believer in a strong military I am convinced that this proposed MOA would be an unnecessary and dangerous encroachment on the part of the Air Force. In times past we have had a very strong military and this airspace was not used for practice.

Sincerely,



Harley McMahon

cc: Copper River Country Journal
US Representative Young
Senator Lincoln
US Senator Stevens
US Senator Murkowski
Governor Hicke
Representative Olberg
Lt. Governor Coghill

027

P.O. Box 1202
Delta Jct., AK 99737
Oct 17, 1994

To whom it may concern;

I know this letter is really not worth the paper it is written on but someone must pick-up the torch and continue to tell the FEDS that there are laws. I am sure by the name and if you check the files you will see all my correspondence and ~~many~~ complaints that I have either called in or wrote to the USAF/Eielson AFB about low level fly-bys the OA-10 have done over my house and the local farms and the sonic booms that I hear weekly around here. In case my letters have been used for paper airplanes or were shredded I will fill you in. Last year here in Delta Jct., I went a scoping meeting about making the Buffalo MOA a permanent area. I never could get a clear answer on why it has to "permanent"? I asked then it would be legal for the armed forces to do ground maneuvers? No not really was the answer. Anyway I logged a complaint then of sonic booms, being buzzed and blown with hot air from the A-10's/(nov OA-10) when I was on a tractor. The aircraft would fly over then pull vertical to blast me with hot air from the turbines/engines. I was told to hold that till after the meeting when I could be talked to. Which I found interesting since Spectrum was there to get comments like mine and started to write my every word till I was told to wait...??? Afterwards I was pulled aside by a Capt. Gary J. Turner and told I HAD NEVER HEARD A SONIC BOOM IN THE DELTA AREA!!! I explained what I had heard and in front of Capt. Turner and some other USAF person who never identified himself, this person agreed it was a sonic boom and the Capt. Turner agreed also I also told him of the fly-bys and the hotshot stuff pulled the pilots over my house and others. Capt. Turner said I should call him if this ever happens again. The other USAF person said pilots have been dismissed from duty for such actions. I told them then and you now I support the US military and the people. An I understand you do not get good by sitting in a flight simulator playing glorified video games. An that the lower 48 is crowded to do such war games and we here in Alaska have the cold weather training conditions. I am hunter also and understand this. BUT I have respect for others and ~~some~~ life. There is over 400 million acres in this state and to buzz under 700 ft over my house and "NEIGHBORHOOD" is completely disrespectful. I did report

several complaints of aircraft some ^{Singles} ~~multiple~~ and multiples. I gave accurate descriptions of the craft and direction. Each time I was told that the USAF had the right to do what I considered illegal and was told during the scoping meeting the AF doesn't do. An that if there was a problem that the USAF could tell the pilots to climb over certain areas. I was told of a hunting fishing type place of business that asked the AF to cut out the traffic or climb to an altitude that would not disturb the clientele I was blown off by Capt. Turner's office and given the statement that the USAF has it's version of the FAA rule of "sparsely populated areas". I approached the complaint from many angles and was given a excuse each time. I was sent a copy of a paragraph of the rule that the USAF is using from the AFR 60-16 rule list. But was told I cannot get a copy of the "entire" rules because I am a civilian. Yes the rule can be interpreted a few ways, but what happened to the hunting lodge - we will work with you" line I was fed??? I did not make it to the Sept 20th meeting here in Delta Jct., because it was hunting season. (VERY good time???)

PAN-001 I want to know why the USAF is so big on a permanent status of this MOA?? Will this give the military land maneuver status also?

Why can't the pilots not buzz the houses?

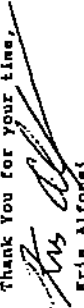
An why can I hear sonic booms when there should be none?

NOI-002 An added note to all this is that the Division of Forestry had a fire near Delta Jct. this year fire #412312. DNR filed with the FAA for flight status for fire suppression work and recons of the area, which means NO aircraft may enter without permission from the IC of the Fire. Not even the military may fly over military land when this status is filed.

The military violated this rule and the law several times. The FAA should have a file on it. I was there I know.

I do not support the permanent status of the MOA Buffalo area and protest all flights fly-bys and buzzing of my house or neighborhood and want all traffic to climb to a reasonable noise level and discontinue sonic booms in the Delta Jct. area.

I would also like a response to this letter.

Thank You for your time,

 Kris Alford

GI1ASG/LGV
 3800 G St. Ste 203
 Elmendorf AFB, Ak. 99506-2150

Subject: Alaska MOA EIS

The mission requirements for the USAF Tactical Air Wings hasn't changed much in the last ten years. The only real difference has been deployability.

We have the finest Tactical Pilots in the world and have had since World War 2. Check James.

We are under going a downsizing of our Air Force and the other branches of the service.

With this in mind, I question the need for a major change in the Air Force MOAs.

At the scoping meeting in Glennallen, we were given the figure of a \$1 Million savings. What positions are going to be eliminated. With a cost of applying for a TMOA at this price, above mentioned, surely, those positions aren't needed and the taxpayer public will salute the USAF for this cost saving determination.

One of the described needs was the lack of aerial fueling capabilities for a bombing or strafing run at the range south of Fairbanks. Why can't our F-15's refuel on the ground at Eielson. Doesn't Eielson have the capability to handle A-10, KC-135 F-16 and F-15 at the same time. Perhaps we should look at some citizen oversight of these commanders who are sworn to protect AMERICA.

Further, there was described the need for F-15 vs. F-16 maneuvers for the sake of combat realism. These two aircraft are fairly similar to one another and are piloted by personnel trained in the same Air Force. Consequently, this argument is flawed.

We were told at this same scoping meeting the need for PMOAs for International Joint Forces Exercises. Since when, is it a requirement for the U.S. to provide additional training areas for foreign pilots.

Under proposal A, the Air Force will relinquish Fox 2. This is the preferred Air Force proposal. It is also in the best interests of the Wild and Scenic Rivers concept and the Trumpeter Swan nesting area set aside. It further shows the USAF's concern for Alaska and the environment. Hence, proposal B is only submitted as a legal requirement of the EIS process.

Trans-sonic maneuvers are only used when a pilot has made a mistake. Hence, there is no training value for a pilot to go trans-sonic at a low altitude. If a pilot blew it, fess up, break contact, and start over. The victory goes to who holds the skies (altitude), if they got you down to the deck, you are wrong.

PAN-001

ALT-002

PAN-002

028

Proposal B creates a Tanana MOA that grants a 300 foot AGL floor over roughly one half of the wintering Nelchichina Caribou Herd and the Eastern Tanana Moose Wintering Range. The sterile factor energy expenditure of these two species shouldn't be put to the empirical test.

With the Spring Nelchichina Caribou Calving Area in proposal A's Fox MOA, making this MOA permanent would relegate any use of this MOA subject to a USAF internal Environmental Assessment. Keeping this MOA as a temporary MOA will give all the state and federal agencies input and hence public input. With the current increase of tourism in the Copper River Basin, can we afford for our tourists to pay for a weekend at Clarence Lake via Cassina 185 only to be buzzed by a pair of F-15 fighters. I believe these tourists won't take home a happy tale of this trip and consequently, our air taxi operators will suffer a severe monetary loss. This will further translate to an overall monetary loss to the entire Copper River Basin.

My suggestions are as follows:

1. Adopt proposal A with Fox as a TMOA.
2. Raise the trans-sonic floor to 7500 feet AGL.
3. Retain Yukon 3, 4, and 5 as TMOAs with a floor of 3000 feet AGL and a trans-sonic floor of 7500 feet.
4. Eliminate Fox 2 TMOA.

Please keep me on your mailing list.



Eric Nashlund
HC60 Box 271
Copper Center, Ak. 99573

BIO-009

REC-001

REC-004

OTH-014

029

P.O. Box 71128
Fairbanks, AK 99707
November 9, 1994

611 ASG/LVG
5800 G Street, Suite 203
Elmendorf AFB, AK 99506-2150

Re: Improvements to Military Operating Areas EIS

Dear Sir,

Before I begin comment upon specifics of the EIS I would like to object to two aspects of the EIS process. The first relates to the inadequacy of maps provided by the AF. They were inevitably faded copies with 5 - 10 mile wide boundaries inscribed with a wide felt tip pen. It was virtually impossible to determine precise boundaries, and therefore impossible to determine where you planned to do what. Given the technical capability demonstrated elsewhere in the EIS one wonders why the maps were so indistinct. Second, the virtual last-minute change of hearing dates for the Fairbanks hearing was a breach of the public trust of the highest magnitude. For almost a year a later date (9/29) had been stated as the hearing date and many persons actually arranged vacations, hunting trips, etc., to accommodate that date. To arbitrarily change the date at the last minute to accommodate the AF instead of the public was an inexcusably arrogant act.

I wish to address only two MOA's in the balance of my comment: Clear Creek and Birch. Both of these MOA's contain corridors of high population density and for better or worse, are some of the most highly utilized recreational areas in the state.

These two corridors are:

- 1) Richardson Highway corridor from below Birch L. NW to Eielson AFB. This corridor includes Harding L., Birch L., and the highway area.
- 2) Salcha River corridor. From the Richardson Hwy bridge ENE upstream to its headwaters.

Though the proposed data and the EIS view these areas as "sparsely populated", that simply is not the case. 1990 US Census data shows 900 plus year around residents in these corridors, plus approximately 750 year-around homes and recreational cabins at Harding Lake (400), Salcha River (120), and Birch Lake (230). Almost 250,000 persons used the Birch L., Harding L., and Salcha R. State Recreational Areas in 1993. These corridors are used year-around for fishing, boating, dog mushing, cross-country skiing, snow machining, etc. In short, this is not a "sparsely populated" area!

029

The EIS assumption that there is no Recreational Impact in the above MOA's is preposterous. The noise generated even by present daily activities is barely tolerable and has resulted in property damage and numerous complaints to the AP. To increase the activity level in these corridors, i.e., daily low-level training exercises, is unacceptable. The noise associated with such activities will adversely impact the daily lives and pursuits of literally hundreds of people.

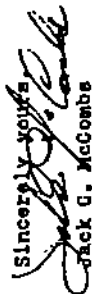
Not only are the daily lives and pastimes of people affected, so are their pocketbooks affected by property values decreased as a result of overflight noise. In May 1993 the North Star Borough Board of Equalization (tax appeal body) found that Salcha River property had declined in value approximately 15% as a result of jet aircraft overflight noise. (Note attached "findings-----") It should be noted that most of the persons and properties involved are owned by persons who built them with their own two hands over a period of years as retirement homes or second homes for recreational purposes where there has always been (until the arrival of the F16's) an expectation of reasonable peace and quiet, not total, just reasonable peace and quiet. F16's simply do not allow for that, and all of a sudden persons who had spent every spare dime they had over the last several years developing their property find that they can't even hold a conversation with their family because of jet noises.

In an effort to reduce noise and economic impact in these two corridors and yet allow the AP to conduct its legitimate training mission I offer the following two recommendations:

- 1) Adopt Alternative A, i.e., Eliminate the Proposed Clear Creek MOA. By your own admission it is unnecessary to your training mission.
- 2) In Birch, establish two 10 mile wide corridors with 8000' AGL minimum altitudes as noise sensitive corridors to accommodate the two highly populated and used areas cited above: A) Richardson Hwy area protecting Birch and Harding Lakes and the highway residents, and B) the Salcha River corridor.

Note that these would be real protective corridors, not the phoney and meaningless ones now in effect on the Salcha with 1000' minimums, etc.

Given the inevitable overall gains in total airspace the AP will undoubtedly achieve with this proposal it would appear unnecessary to disrupt the lives and pursuits of so many. The above proposals and recommendations would appear to accommodate both the AP and residents and users of these corridors. I urge you to adopt the recommendations.

Sincerely yours,

 Jack G. McCombs

OTH-001

PRO-007

FINDINGS OF FACT AND CONCLUSIONS OF LAW APPEAL TO THE BOARD OF EQUALIZATION

JACK G. MCCOMBS
 (TL-1407, Sec. 14, TSS, RSE, Fairbanks Meridian)

Following a public meeting conducted April 30, 1993, at which the appeal referenced above was heard, the Fairbanks North Star Borough Board of Equalization found and concluded as follows:

FINDINGS OF FACT:

1. JACK G. MCCOMBS is the owner of that certain real property described as TL-1407, Sec. 14, TSS, RSE, Fairbanks Meridian, in the Fairbanks North Star Borough.

2. The Fairbanks North Star Borough Assessor has assessed the value of the land comprising the aforementioned property at \$14,850.00, and the improvements thereupon at \$2,701.00, for a total assessed value of \$17,551.00.

3. Appellant contended that because of the F-16 jet aircraft based at Eielson AFB, which conduct low-level supersonic training exercises and cause a constant rumble, roar, and occasional sonic boom, the property's only value lies in its recreational and aesthetic potential, relative freedom from odorous and pervasive sounds being one important aspect of any recreational property. Appellant also contended that the recent degradation of the sound environment has significantly reduced the fair market value of appellant's property and for all other properties in the area. Other than the sound environment, appellant feels that the property was fairly assessed.

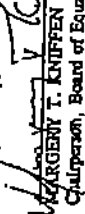
4. The assessor contends that the property is assessed comparably to other property in the area.

CONCLUSIONS OF LAW

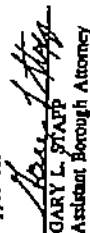
1. The assessed value of the subject property is too high.

2. A motion to reduce the assessed value of the land of the subject property to \$12,000.00, was upheld by the Board. The 1993 assessed value is reduced to \$14,701.00.

This written record of the Board of Equalization's action of April 30, 1993, was REVIEWED, APPROVED and ADOPTED this 10th day of May, 1993.


 MARGARET T. KNIFFEN
 Chairperson, Board of Equalization

Approved:


 GARY L. PIAPP
 Assistant Borough Attorney

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BASIN AIRMOTIVE

Box 148, Centralia, Alaska, 99588
(907) 822-3574

11/10/94

611 ASG/LGV
5800 G St. Ste 203
Elmendorf AFB, AK
99506-2150

Dear Sirs:

I would like to voice my opposition to the establishment of the Fox 1 MOA. I make my living flying in the area around Lake Louise and would spend nearly 80% of my flying time in the proposed MOA. During the times that Fox 1 has been used as a temporary MOA, I have observed the total disregard the Air Force had for the 3000 foot above ground level floor that was supposedly in effect. Clients that I had on the ground confirmed this as being an almost continuous breach of the rules, occurring up to 3 time daily with F-15's flying high speed/low level along the Susitna River outside the approved low level training routes, well below 3000 above ground level. I fear that any aircraft flying in this area during these times is in danger of becoming a hood ornament for an Eagle.

In my opinion the Fox 1 MOA is a hazard to aviation safety and as such should be not be allowed. The Air Force has not shown that it is able to handle itself in this airspace in a manner that allows those of us who work here to continue to fly safely. Making Fox 1 a permanent MOA and allowing supersonic flight therein would certainly have disastrous results.

Thank you,

Gerald Lee

Gerald Lee
Owner/Operator
Basin Airmotive

AIR-016

SAF-005

031

Maclaren River Lodge

42 Mi. Denali Hwy.
P.O. Box 3018
Pawson, AK 99737

(907) 822-7105 (at Lodge)
(907) 263-8899 (Answering Service)

October 25, 1994

Major Virgil Hanson
511 ASG/LGV
5800 G St Ste 203
Elmendorf AFB, Alaska 99506-2150

Dear Major Hanson:

It has recently been brought to my attention that the Air Force has plans to create a MOA (designated "FOX") that would create Level II impact on the biological resources in the area that I consider to be within the area that is of business interest to me and the people that I cater to.

As the owner of the Maclaren River Lodge, I want to go on record as opposing the proposed change to the n th degree.

The Denali Highway is one of the last pristine or near pristine areas in the State that is accessible to the general public and the pollution of such an area is unacceptable at best.

By pollution I'm referring to the sonic boom potential and low level flights that the Air Force has planned. The wildlife in this area adhere to a very strict pattern of behavior and any major change to their surrounding habitat (like noise pollution) could have long lasting if not permanent adverse affect on this resource.

Respectfully,

Mike Little
Mike Little, owner

BIO-009

REC-004

ALASKA MILITARY OPERATIONS AREA

PUBLIC HEARING

CHALKYITSIK, ALASKA

OCTOBER 4, 1994

COL. HEUPEL:

I want to thank you for coming out tonight. I'm Col. Jim Heupel. I'm an Air Force trial judge. I'm a military trial judge and in the Air Force we have judges conduct environmental hearings so that we bring in somebody that's from outside and make sure that there's a fair, orderly hearing and everybody that wants to speak or has questions to ask has an opportunity to ask those questions. This hearing tonight is on the Alaska military operations area and we'll have some speakers tonight who will explain that a little more to you what that is and how it affects you. But this hearing is being conducted under federal regulations. Something called the National Environmental Policy Act. And the purpose of the hearing is to brief you on the proposals. To tell you what environmental effects have been found to be with regard to the studies that have been done on the proposals. And then to receive any comment that you might have. What your thoughts are about it.

In terms of the people doing briefing tonight, Col. Rich Hassan is Commander of the 61st Air Operations Group from Elmendorf Air Force Base in Anchorage and he's going to just talk to you a little bit about the environmental process. Maj. Bob Siter is an F-15 pilot. He's Chief of Fighter Operations down at Anchorage and he's going to talk to you about the environmental proposals and some of the changes that have occurred as the result of an earlier hearing that was done up here in this area, as well as 14 other places throughout Alaska last year. And then we have Mr. Bill Ham. He's a civilian contractor working for the Air Force. He's with a company called Spectrum Sciences and Software and he will explain to you some of the environmental effects that have been studied. And after these three people have gone through their briefings, we'll try to answer any questions that you may have and we'll give you an opportunity to, as I said before, make any statements.

You'll notice, we've got some microphones around. We're tape recording all of this because the hearing is part of the formal process and what's said at the hearing will become a part of the final record. And that's to insure that everybody's comments make it into the record and everybody has an opportunity to speak.

None of us are the decision makers in this, but we want to make sure that the decision makers have the benefit of your knowledge of the local area and your concerns about this study and your knowledge of this area. With that, let me turn it over to Col. Hassan.

COL. HASSAN:

Thanks. Thanks for coming out.

We're actually here tonight to follow up when we were here a year ago. And it's part of a process to let folks know ahead of time what it is that the Air Force would like to do. So contrary to the way things used to be, we want to come out, we want to explain what it is that we'd like to do.

Last year we got lots of comments from this general area about where subsistence hunting took place. About where the concentrations of wildlife are. And, in fact, we even got a recommendation or request to look at it is possible to fly in another part of the state and we took that information and created another proposal. Another alternative to our proposal based on what we heard here. So we really appreciate the comments that we got throughout this area and so we wanted to come back and let you know where we are.

The process that we're talking about here is Environmental Impact Statement process. It's (UNINTELLIGIBLE) several years (UNINTELLIGIBLE). We started a year ago, we asked you what you thought, we showed you what we wanted to do, we asked you what you thought. We took all those comments and we produced the document, over this past year, that you have here. Actually, the whole document is about 600 pages long, but we tried to put a summary together so that folks can focus in and there are references in there that you can go back and look for more detail in the big document, if you want to. Right now we're collecting comments on this, and it will take about another year before any decision is made on which way we're gonna

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go with this proposal.

Now first of all, I would like to say that in this general area, and we visited Arctic Village, Venetie, today we were in Fort Yukon, tonight we're here. This activity that goes on up in your area, right up here, and the closest to you, of course, is Yukon 5 military operations area, is not going to change in this proposal from the way it is today, in any drastic manner.

First of all, let me explain what these boxes are on here. When the Air Force trains, okay, when it flies its airplanes to get training for their pilots, we have to fly within specified areas. We can't fly all over wherever we want. So the Federal Aviation Administration established this thing where these are called military operations areas and each of these boxes are places where we can fly and train. Now, each of these boxes has a different ... has different dimensions to it. For example, in this area right here, Yukon 5, the lowest we can fly is 3,000 feet and that goes up to 18,000 feet. In other areas down here, Yukon 1, Yukon 2, planes are allowed to fly low. As close down as 500 feet. So Yukon 5 is relatively a much higher altitude that we are allowed to train at. And, in fact, the majority of training that our pilots do are at altitudes higher than that. So what this study did was, it went in and looked at what would the effect of flying airplanes be on wildlife, on noise, on subsistence. And what would planes flying, would that have a negative or, you know, make it harder to hunt, to make the animals more concerned. And what we basically found in the study and it's in there, is that the higher you fly, so, for example, 3,000 feet is the lowest we can fly to the ground, it appears that that does not startle the animals over any extended period of time. And we have done some studies, we have had folks that go out and look, not the Air Force people, but we fund studies. Today we talked with the CATG and they're going to help provide some information for us. So that's how we collect the data on the animals.

With that, I'll just have Maj. Siter briefly talk a little bit about the other proposal that came up based on the inputs that you gave us.

MAJ. SITER:

Thank you, sir.

In light of coming out here last year, both agencies and the public made

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some suggestions about where we might else get our training. Alternative B, again is an alternative to the proposed action that we had brought up last fall, it looks at the substitution of Yukon 5, which is up here, and Yukon 4, which is here, adding a different MOA in its place called Tanana MOA. The town of Tok is here and this MOA would join the southern border of Yukon 3, the southeastern border of the MOA called Buffalo and then the eastern border of a MOA called Fox. This area will be in the (UNINTELLIGIBLE) area, like this area is up here. Over here it's a little bit lower than what we've got here and similar to the floor at what was the Yukon 4. And again, if you look at providing a suitable airspace that's large enough to do exercises and also provides us airspace that we can do our training day-to-day, because we do two types of training. Most of our routine training that we do each day is a lot of one-on-one flying and two-on-two and four-on-four flying. Kind of smaller groups of aircraft.

On occasion during the year, and we've been doing this for some time, they do it, not just in Alaska, but throughout the United States, is we do exercises where we bring a number of aircraft into the state and we form an exercise and we use this airspace area here to conduct exercises in bombing ranges. These bombing ranges are where we can have ... the only places in the state where we can have something come off the plane and hit the ground and it's all controlled on three bombing ranges which are depicted here, here and here. With this being the Fairbanks area, so it's southeast of Fairbanks. And again, that's one of the reasons that the bombing ranges location (UNINTELLIGIBLE) one of the reasons why this is an important area in the state for the Air Force to train, because we don't have any bombing ranges anywhere else in the state. All these other airspaces have no adjoining bombing ranges. And over the last few years, the aircraft that have come into the state and what we train with, predominantly do that type of training where they go to a range and they release bombs over a target. So anyway, that's how we evolved to the alternatives.

COL. HASSAN:

(UNINTELLIGIBLE)

MAJ. SITER:

Yes. The airspaces that Col. Hassan talked about, the military operating areas, have both charted airspace which is here in green and uncharted airspace here.

Yukon 5 is an airspace that we do fly in during those exercises that I talked about where we use the whole area for larger groups of aircraft. The aircraft fly out of Eielson and down from Elmendorf, up to these outlying areas here and they are very high. And when they go there, their objective is to go to a tanker aircraft, which is a big gas truck kind of plane in the sky that has a probe that allows transfer of gas from one plane to another. And so, for example, with my fighter aircraft, I would get behind the tanker and he would give me more fuel. What that allows, is for me to go greater distances. All the way down from Anchorage up here, get that extra fuel and then support aircraft going to the bombing ranges.

So, the aircraft in these areas orbit, usually around 25,000 feet or even higher. But you also have airborne surveillance aircraft that fly very high out here, again. Once the aircraft are refueled and they group together, groups will come in from different directions toward the bombing range. As they start heading southbound toward the bomber range, they may be engaged or attacked, simulated attack by other aircraft from the other side of this exercise. Then, and only then, do the aircraft descend and try to hide and do low altitude training. Again, because this is an airspace where they are allowed to do that. Again, these airspaces have a lower floor than the airspaces up here would have.

Additionally, aircraft wouldn't be going supersonic out here because while you're refueling you're not going very fast because you're trying to save gas. That's why you're taking fuel in the first place, is to try to build a fuel reserve to do the attack. And so down here is where aircraft will accelerate and potentially go to supersonic speed. Once they hit the targets, again they might come out at low altitude and they might come out at higher altitudes, as well. The idea is to get back to safe territory. Because it's not enough for the pilots to practice getting to the target, they have to practice to get home so they can survive and hopefully repeat the process the next day. And so, the training situation allows that to happen.

The floor in this area, right now, is 2,000 feet above the ground. So when

we have the exercises, 2,000 feet. But again, the aircraft are higher. We've looked at our need and we don't need the floor to be 2,000 feet. It doesn't need to be that low. And so, in this proposal, we are raising the floor another 1,000 feet, up to 3,000 feet.

COL. HASSAN:

One of the things that has come out of the discussions with, for example, the CATG, we know that the Black River, for example, is a high concentration of trapping activity. Also, a high concentration of waterfowl, water life. And so we do things in conjunction with local groups to try what we call to mitigate any effects that our flying might have. Let me give you an example of what we do today.

In the Yukon-Charley river area that you see here, where you see these orange lines, we, today, have a two-mile restriction and a 2,000 foot floor because Peregrine falcons are nesting in this area. So that we will not fly two miles around the river or (UNINTELLIGIBLE) we must go over the river at 2,000 feet. We have been told over the last three years that we have done that. This is the only area in the entire United States where the Peregrine falcons are flourishing. They're on the up rise. In most other places in the country, they are on the decline. So our activity, in that we consulted with, in this particular case, U.S. Fish & Wildlife who worked with us to do that, we think has proven that we can do our training, but not affect the falcons.

Now on the human side, this community here, down in Circle Hot Springs, Central area, which, as Maj. Siter says, is in a much higher activity area, down in this area, we worked with the local community there and in discussions with them, we have now drawn, since the first part of August, a 10-mile circle around those communities and put a 35,000 foot floor so we will not do any supersonic operations. We were there just two weeks ago and the community seems to be fairly happy with that result.

So, while we want to train, while we have to train, we want you to know that we are very concerned about making sure that our training activity does not get involved with making your hunting or subsistence or lifestyles, affecting them negatively. And we work those kinds of things today.

And as I told you, I think we had a very good session today with the folks in Fort Yukon and they have asked that we work with the CATG to get inputs on where

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the ... if there's anything in the study we've missed and perhaps to monitor any long-term effects that we might have.

So with that, I'll turn it back over to the Judge and ...

COL. HEUPEL:

Thank you.

Let me ask, at this time, if any of you have any questions, if somebody's got a statement, I'll hold statements, but does anybody have any questions about what's presented or what you may have read in the summary that you'd like to ask.

JAMES NATHANIEL, JR.:

I have a question. (UNINTELLIGIBLE) how often do you guys do your military exercises? (UNINTELLIGIBLE)

MAJ. SITER:

We have, for the last couple years, been authorized to do up to six exercises per year. It usually lasts around 10 days. We have, in the last three years, done either three or four exercises per year. We did three exercises this year and we're on schedule next year to do four exercises.

COL. HASSAN:

And they last about two weeks. And part of the other mitigation that we've done in consultation with various groups, we will not fly any exercises the first two weeks of September. We will not fly any exercises over the Fourth of July period for recreation purposes. And we have tried to spread them out so they are not together. For example, this year we had an exercise, one in ...

MAJ. SITER:

June, July and August.

COL. HASSAN:

June, one in July and one in August. And we're looking in the future to try and spread that out even further so that they're not closely together.

But, as you well know, we are very sensitive to critical times in the animals' life cycle and so the May time frame we have tried to avoid, as well. That's a general time, as you know. Different species have different periods. But, you know, calving and lambing and nesting are very critical to us and we try to avoid, we do avoid the

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areas that we are aware that calving or lambing's going on. So, that's another ongoing activity that we try to ...

MAJ. SITER:

This mitigation process is something that's been going on. This is not a new thing. This has been going on since, literally, the Air Force has been flying in Alaska. Our list is at 38 points to date. Or 38 regions. And so it evolves over time and it's based on talking with the agencies and with the public.

For example, the most recent addition was this supersonic restriction around the Circle Hot Springs and Central area. That is one of the latest points of this 38 point list.

Again, we have a 1-800 service to get direct information from you all. If something happens out here and you want to be able to report it to us real time, then you can make the call and tell us exactly what you believe happened. And then we do an investigation. In the course of that investigation, if we determine that, in fact, we can look at how they're operating, we can then consider making a mitigation area so that that impact does not continue. Again, it has to do with being accessible to you. That 800 service went in this past summer and that's permanent. We will have that service for the future because it helps us because a lot of times we are not aware of certain things. Again, that's one of the reasons why we're here tonight, is to get your expertise. But that doesn't change. In the future, we would like to do that as well. And the bottom line is trying to be accessible to the public.

COL. HASSAN:

We found again, out when we talked to various folks, one of the frustrations was, was, you know, if somebody saw something or something that occurred while they were out in the area, it's awful hard to know how to get a hold of anybody to complain or to be heard and there's nothing more frustrating to somebody than trying ... you finally get through and then somebody says, "Well, you know, that wasn't us or whatever." So we instituted this, as Maj. Siter said, an 800 number, so it's assessable and it's one place and you will get an answer if you have a problem.

DARRYL SALMON:

So you guys train five or six times a year?

COL. HASSAN:

We do the major exercises ... right now we've never done them more than four. We don't foresee that to increase in the future just because we don't have ... you know, everybody's taking budget cuts. And then we train ... the routine training that we do, which, in these areas here, our analysis, what we looked at was, on average you might see one flight. That could occur over 240 days a year. But on the average, you guys are up at the very top of the structure.

See, we look at this whole thing as a structure, an airspace structure. You're at the very edge of it, so, on average, you'd see ... every couple of weeks you might see an airplane or two.

QUESTION #1:

This airspace. I seen one in, I think it was July or somewhere.

COL. HASSAN:

Did you?

QUESTION #2:

Yeah. I heard a sonic boom. That was loud, man. We seen it up here. I think there was two of them. Two airplanes.

COL. HASSAN:

Two airplanes?

QUESTION #3:

Yeah. They were way up there.

MAJ. SITER:

This airspace is unique. Of all the airspace, this complex of airspace in the interior, the northeast part of the state, this Yukon 5 is unique in that it is the only airspace ... if it's created as a charted airspace, it will not have published hours. All the other airspaces have published hours that they can use Monday through Friday, normally, and they usually run from 8:00 in the morning to 6:00 at night. It doesn't mean there's constantly aircraft during that time. That's the time where the Federal Aviation Administration will let us use the airspace.

The use up here is low enough that we do not need published hours day-to-day. So in order for us to even use this airspace outside of the exercises that we're

already using them for, is we have to call the Federal Aviation Administration and ask them to activate the airspace. And it might just be for a few hours.

Again, Col. Hassan's alluded that the average daily use is less than one aircraft mission per day. And so imagine ... the way I personally see this airspace working, is every other week it might be activated for a few hours, you might see three or four aircraft flying. Again, they'd have to fly higher than 3,000 on the floor or higher. And then we might not use the airspace for a couple more days or for another week. And so it'd be an infrequent used airspace.

And again, it goes to the fact that the aircraft, if they have to travel a long distance to get to where they're going to train, they're not going to have as much gas to do the training. So this is kind of on the fringe of the area that we can get to and still have enough fuel to do something when we get there. Okay. So again, this will be a low use area compared to everywhere else.

COL. HASSAN:

But you guys heard, it was two. And you heard it in July. I wonder if it was connected with the July exercises.

JAMES NATHANIEL, JR.:

Yeah. I was gonna ask, has anybody ... has any other communities caught it (UNINTELLIGIBLE) and reported that. Because I remember when I was walking up my stairs, I mean it was like the windows shook.

SEVERAL VOICES AT THE SAME TIME

COL. HEUPEL:

They didn't call, but the First Chief was mentioning about the July time frame some jets flying over. It might have or might not have been the same thing.

QUESTION #4:

The First Chief from where?

COL. HEUPEL:

From Fort Yukon.

MAJ. SITER:

That would be an instance, again, with the 800 service we now have. We've had it since July, but obviously at that time you weren't aware of it. That's where we

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would appreciate a phone call. Because this airspace here, even during exercises, is not authorized for supersonic operations. Our proposal looks at authorizing it there, but it presently is not authorized.

Again, this would be an instance where if you could report it as soon as possible, that would help us, cause we'll do a thorough investigation. But it's like anything else when you investigate something, the sooner you get the information that something's happened, in terms of the date, the time, the location, the sooner we can go back to the squadrons, get all the tapes that are carried on the planes, freeze those tapes, review the tapes, talk with the pilots and then find out what happened and why they did what they did and then take appropriate measures. One is, essentially, if someone is willfully doing something wrong, then we might ground the pilot. It depends. If he made an honest mistake ... realize these aircraft do not give the pilot a whole bunch of indications that they are approaching supersonic speed, there's no trembling in the controls or a shaking of the aircraft. The pilot really doesn't notice it. The only way he can tell is by his air speed indicator. And you can imagine he's out fighting and looking for other aircraft, he might miss that. And so if he makes a mistake, it isn't like we just ignore that, we make sure he's trained well enough. If that's what it takes, we'll give him more training so that he won't miss it next time. But the idea is, the investigation ... you're one of the keys to help us do it right. And that's by giving it to us as quickly as you possibly can. And we recognize sometimes you're hunting and you just can't pick up a phone and call. It might take a few days. But that's still ... go ahead and do that. Don't let the fact that you couldn't call the same day stop you from calling us. We can still do an investigation.

COL. HASSAN:

Yeah. We really don't need to know the kind of plane. Really, just where you are. You know, we're in Chalkyitsik, it's Friday and it was about 12:00 o'clock. That's all we need.

But you should not hear a lot of it. In fact, hopefully you won't hear anything.

PATTY SALMON:

(UNINTELLIGIBLE)

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COL. HASSAN:

It's kind of interesting. When the airplane goes faster than the speed of sound, there is a wave, like throwing a rock in the river, it gets out in front of the airplane. When it goes faster than sound, it sends a big bow wave out and so how loud that bow wave is depends on a lot of things. It depends on how high the airplane is, because the wave is just like a wave as you throw the rock in the water, the farther away it gets from where you threw it, it spreads out and it then eventually stops. So the higher the airplane is, sometimes that wave never gets to the ground. It also depends on how cold the air is, how humid the air is. There's a lot of factors. That's a long answer, but that's kind of what ... when the plane goes faster than the speed of sound, it breaks through that ... at that point, it's like a rock hit the water and a wave spreads out and that's what you hear, if you hear, is just a sound wave out in front of the plane. But it depends upon, you know, the higher the plane is, most likely you'll never hear it. If the plane's lower or if it's a certain kind of day, you may hear that sound wave.

JAMES NATHANIEL, JR.:

You mentioned something about environmental studies earlier--has there ones been done for that Yukon 5 (UNINTELLIGIBLE).

BILL HAM:

We looked at the subsistence use areas in Yukon 5 and I'll point out what we found out with our research. The general subsistence species that were identified to us were, of course, the moose. To a lesser extent, caribou, waterfowl, bears. And then also, there's a lot of trapping that goes on. The small fur bearing animals. We found that the moose area that was identified to us, the documented area, was probably the biggest. And most of the areas are generally along the river drainages. We found that the moose area extended from down here near Beaver, on the Yukon River, generally drew a triangle around Birch Creek and up to Fort Yukon, extended on up the Porcupine River, almost to the Canadian border, down the Yukon River toward Circle, also down the Birch Creek drainage. Also found that the moose area extended on through--and very narrow areas along the river here--along the Black River, down into Yukon 5.

The waterfowl area was generally the same area, but didn't extend as far up towards the Canadian border on the Porcupine.

For the black bears. Generally this same area. Not quite as far up the Porcupine. It kind of ended here, around Chalkyitsik, is what was identified to us.

And that the predominant amount of traffic, some 40 to 45 predominant trappers, were generally trapping in this area. Right north of Chalkyitsik and near the Black River, all the way over towards the Canadian border. Those are the areas that were identified to us, sir, as the main subsistence use areas up here.

Does that pretty well jive with ah, ...

JAMES NATHANIEL, JR.:

I guess what I'm getting at is, uh, how would you know, um, ... Well, the question I should ask is, um, does your military air exercise affect these animals like during ... fowl ... moose season or fowl season.

BILL HAM:

Three thousand feet seems to be the magic number. The studies that we've found and we've done a lot of research on this, is that the big effect is the noise. Certain noise levels the animals tend to startle. Look up, maybe stop eating. You know, moose are very temperamental, you know. You can see when we move off from the river site. And at that 3,000 foot level, the noise level that they tend to be potentially impacted by is about 85 decibels. I know that may not mean anything, but 85 decibels is about 3,000 feet in a typical fighter aircraft. So above that, it gets less and less and less. And that's why 3,000 feet is kind of a magic number for animals. Potential for startling an animal.

And so we think that at the 3,000 foot level, there would be minimal potential of any long term effects on the wildlife. And, yet, a moose may stop eating, it may startle, it may move. The small fur bearers don't seem to be susceptible at all. It's predominantly the larger animals like the moose and the caribou that tend to potentially stop what they're doing and at least look, is what they've noted in the studies. And the Air Force has done some studies even in the last year or two up in this area. It's a monitoring study of noise. And that's the same kind of things that they're seeing. And some of the herds in the southern—a little further south—...

COL. HASSAN:

We had some folks, for example, go out and monitor some Peregrine falcon nests and actually, you know, be there. And then Maj. Siter worked with fighter planes and they flew over from different distances and folks watched the birds to see, you know, how they would react. And, as Mr. Ham said, in most instances what we found both with the birds and with the large hoofed animals, is at the 3,000 foot and above, that 85 decibel level, which is just how loud the noise sounds, that most, you know, they'd look up and then go back to doing what they were doing, as opposed to as you got lower and lower and the sound got louder, they may, you know, get up and run or, you know, whatever. So, that's what we've found so far.

JAMES NATHANIEL, JR.:

I guess that's what my concern was (UNINTELLIGIBLE).

COL. HEUPEL:

Does anyone else have any questions? Or does anyone else have anything that they wish to say or have any statements that they want to make?

JAMES NATHANIEL, JR.:

I have another question. How soon will you guys get your final draft of your Environmental Income, I mean, Impact Statement?

COL. HASSAN:

Okay. We're gonna be doing hearings. Like tomorrow night we'll be in Venetie, Arctic Village Thursday night, and then we've got three more next week. And then, as the Colonel mentioned earlier, we're going to still take ... if you go through this and, you know, read anything or talk with folks in Fort Yukon, what have you, and want to write in a comment, we'll accept comments through the 30th of November. After the 30th of November, we'll go back and take everything we've heard, as he said, we're taking recordings of all the questions that have come up, and then we're going to go back and redo areas that need to be redone, add some things if that needs to be, you know, added, anything we've missed. And then ultimately, the answer to your question is, that's going to take about another six or seven months. So we're looking at, you would see a final Environmental Impact Statement probably about July of next year. And then you'll get a chance to comment on that. And then a decision would be

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made, probably about this time next year. About September of next year. And then that has to be reviewed by the Federal Aviation Administration after the Air Force decides. And really, what the Air Force is deciding on is, here's where we need to train, here's some alternatives, here's some concerns that we heard. Now, how close can we get to a balance where we can do the training we need to do with the least amount of impact on people and wildlife. And that's what we're trying to find. If we find that, then I think everybody should be fairly well comfortable. So we're not impacting your lifestyle, but at the same time we're getting the training we need. And that's what our decision needs to be based on and that's why this process is so important. So about this time next year, okay.

MAJ. SITER:

What I want to do is give you the 800 number. I know I mentioned that earlier, but the number is 1-800-338-6647.

Again, 1-800-338-6647. And that phone is down at the headquarters. The 11th Air Force. Again, that's the central area of responsibility for all flying in Alaska. And the call will be taken down there. And again, we will get back with you when you make the call.

COL. HEUPEL:

Does anyone have anything else?

Let's see, we do have the addresses back on the table. And let's see, I believe it should be on the ... it's also on the letter in their...

BILL HAM:

Executive Summary.

COL. HEUPEL:

It's on the letter in the Executive Summary for where you can send any additional comments that you want to send it to. The Air Force needs to receive it in Anchorage by the 30th of November. This is what's called an Executive Summary. It's a very brief summary of the four volumes. The four volumes were sent here and they should be available here in the Council office so if you want to look at it in more detail, it would be there to look at.

And, you know, if there's anybody else, if you talk with anybody else here

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in Chalkyitsik who wants to make a comment, they're welcome to send it in. And if anybody finds any errors or something that the Air Force needs to do better, please say that so that we can take a look to make sure that the best decisions possible can be made.

We want to thank you very much for coming. I know it's getting fairly late. We started late because of the elections that were held here and then the tally of the votes. But we really appreciate your coming out and being with us tonight and participating. Thank you very much for coming.

CERTIFICATION PAGE

I, Diane A. Beaulieu, do certify that this transcript is an accurate record of the proceedings as recorded.

Dated: 11/1/94 _____
 subscribed and sworn to
 before me this _____ day
 of _____, 1994.

Diane A. Beaulieu

Sandra L. Miller
 Notary Public
 My Commission Expires: 3-1-97

Addendum:

The tape and transcript for the Chalkyitsik MOA DEIS hearing were reviewed beginning with the comments/questions first given by Mr. James Nathaniel, Jr., and continuing through the end of the hearing. Corrections were made accordingly to the electronic (disk) and hard copy versions.

Karen McKibbin

Spectrum Sciences and Software, Inc.

November 22, 1994

ALASKA MILITARY OPERATIONS AREAS

PUBLIC HEARING

TOK, ALASKA

SEPTEMBER 26, 1994

COL. HEUPEL:

We're starting this a little bit late because we were waiting to see if we had some additional people that had some interest and we're glad to have the rest of you that came in, here with us tonight.

This is a public hearing on the Draft Environmental Impact Statement for the Alaskan Military Operations Area.

We want to have you give us your comments after the briefing that we have tonight and if you have some questions about what you're briefed on tonight, we'll have time for you to ask questions on that and receive clarification.

I'm Colonel Jim Heupel and I'm going to be the presiding officer for the hearing tonight. I'm a trial judge for military criminal trials and come out of Washington, DC. So as a result, I'm not involved, actually, in the environmental process other than holding this hearing and I'll talk more about that a little bit later.

Let me introduce the other members of the hearing panel. Colonel Rich Hassan is standing up in the corner. He's the commander of the 611th Air Support Group stationed at Elmendorf Air Force Base in Anchorage and he's going to be providing you an overview of the Environmental Impact Statement process. Sometimes you'll hear us refer to the Environmental Impact Statement with the acronym EIS. I just want to point that out in case you're not familiar with it.

Seated with the sweater is Major Bob Siter. He's also stationed at Elmendorf Air Force Base. He's an F-15 pilot and he's the chief of fighter operations at the 611th Air Operations Group. He's going to be briefing you on the proposals that have been studied and the issues that were raised at the earlier scoping hearings, one of which was held here in Tok.

And then Mr. Bill Ham, who is standing with the white sweater. He is going to—he's employed by Spectrum Sciences and Software, a contractor for the Air

Force. He works out of Florida. He's going to be briefing you on the environmental consequences of the proposed actions and the alternatives.

Now, as I mentioned earlier, I'm a criminal trial judge. I'm not here as a legal advisor for the group. I don't have anything to do with this draft EIS. I haven't had any involvement with its development. I'm just here to make sure that we've got an orderly hearing and everybody that wants to speak has a fair opportunity to be heard. As far as the hearing tonight, the Air Force has prepared a Draft Environmental Impact Statement, it's in—actually it's several volumes. Some of you may have received it. And it's prepared, this Environmental Impact Statement, on the Alaska Military Operations Area. I see several of you have got a copy of the Executive Summary from that Environmental Impact Statement. It's available out at the registration desk.

This has been prepared in accordance with the National Environmental Policy Act and Air Force Implementing Regulations. So, the reason that we're having the hearing tonight is to give you the results of this Draft Environmental Impact Statement and to receive your comments on it.

The hearing's going to be in two parts. In the first part Colonel Hassan, Major Siter, and Mr. Ham will present information to you concerning the environmental impact analysis process. This is a required briefing and will take about 45 minutes, I think, at the maximum. The second part of the hearing is a public participation portion where you'll have the opportunity to comment on the Draft Environmental Impact Statement and to ask questions clarifying what's been presented to you.

We really want your involvement in this process. The hearing is to provide a public forum for two-way communication about the draft EIS so that we can improve the decision making process.

COMMENT FROM AUDIENCE:

Can I just interrupt one second. If you really want—has there been any public announcement of this?

COL. HEUPEL:

Yes, there has been.

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COL. HASSAN:

There was meeting last year, also.

AUDIENCE MEMBER:

And where was it advertised.

COL. HASSAN:

It was advertised in the "Mukluk".

AUDIENCE MEMBER:

It was advertised. Was this one advertised in the "Mukluk"?

COL. HASSAN:

I believe so.

AUDIENCE MEMBER:

This is the first that most people that I've talked to have heard of it.

COL. HEUPEL:

Well, the best that I can tell you, and I say this because I've conducted environmental hearings for the Air Force at other places, that's not necessarily an unusual situation. The Air Force can do everything it can in order to send out announcements to newspapers, to TV, or whatever else in the area, but what they choose to put out, or how often they put it out, the Air Force is limited on. I can tell you that copies of the draft EIS have been sent to a number of different libraries or council areas. I'm not sure what the closest one here for Tok is. If somebody's got that?

DIFFERENT AUDIENCE MEMBER:

It's at the Tok Public Library.

COL. HEUPEL:

It's at the Tok Public Library. So it has been sent out and that's part of the reason for the briefing on the first part is to at least give you some idea of what's in that fairly lengthy Draft Environmental Impact Statement.

Now, as I say, this will give you a briefing on this. This will also give you the opportunity to provide some comment about what you hear tonight or to ask some clarifying questions. But there's also an opportunity for you to provide written comment up until the 30th of November. The period's been extended. Originally it was the

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31st of October, now it's the 30th of November. So that perhaps you have an opportunity to get over to the library if you want to look at it further and then send the Air Force any additional comments that you might have.

Because we want—we want the comments from everybody in order, as I say, to improve this decision making process to see if we've neglected anything. Not being as familiar with the local area as you are, there may be some things that the Air Force ought to be taking into consideration that it hasn't been considered. So that's why we really want your input.

So, this hearing is not a debate or a referendum on what ought to be done, but the focus of it is on the environmental impact associated with the proposals being studied by the Air Force. Now, none of the panel members are going to be the decision makers on this project, but they're here to try to give you as much information as possible.

After the presentations have been done, people that have signed up saying that they want to speak, I'll call on them. I'll throw it open to anybody else, even if you haven't signed up, if you want to speak or if you've got some questions to ask, we'll want to hear from you. And if we have any elected public officials here, I'll call on them first and then everybody else from the public in general.

The point that I was making earlier, if you don't have any statement to make tonight, or even if you do make an oral statement tonight, you can still send something in in writing. We've got written comment sheets. If you want to fill those out tonight, you can do that. If you want to take one with you, it's got the address where to send any written comments to. And written comments will be considered exactly the same as any oral comments given here tonight.

We just want to stress that this is your opportunity to provide the Air Force with any information that you may have regarding environmental factors that are unknown to us and to have an input into the decisions that the Air Force must make regarding the proposed action or the alternative actions.

Let me not take any more time. I'll be turning it over to Colonel Rich Hassan.

COL. HASSAN:

Thank you.

As Colonel Heupel said, this is why we're here. So in order to—(interrupted by school intercom)—in order so that we can help focus your attention to various issues that you may be concerned about, we wanted to put this presentation together. But it will address not only the background, but it will address some of the potential environmental consequences of our proposed action that we've identified and we'd like you to comment on. So we'll focus in on those and then we'll have an opportunity to discuss it.

We'll go in this form here.

We started a year ago in this process, the Environmental Impact Statement process. And what you have before you is a proposal. Which means that we have opportunity for you to interact. We were here last, in January. We got some issues and comments were identified by your neighbors. We have factored those into this study that's been accomplished. And we're going to take more issues or comments now and it's still going to take another year before the decision time. So there's plenty of time for everybody to interact and feel a part of the process.

Secondly, this proposal is not about increasing the amount of flying in the state of Alaska. It is focused on adjusting the airspace that we presently use today and make it more effective for our training needs. That's what it's about. We're not talking about bringing more planes in, we're not talking about flying more numbers of sorties throughout the state, the amount of time that we fly.

Third, and this was a question that came up earlier, Military Operations Areas, which if you look on those charts there, are those different colored boxes, are basically boxes that appear on airspace maps, that are areas in the sky that the military is confined to do its training. And they are not, in any way, put there to keep the public out of the airspace. It is to advise the public that's where the military does its training. So it doesn't change any existence—existing right to use airspace. And we do want your input and ideas.

The reason that we are going through this Environmental Impact Statement is several points.

First is, during the Cold War the focus of Alaska-based forces was to defend the United States. In order to do that, we did training that was air-to-air kind of training. Because the predominant mission was to intercept anybody coming or trying to get into Alaska or North America. Since the end of the Cold War, our focus has been to be able to pick up the Alaska forces and deploy them to "hot spots" around the world, wherever that may be. In order to do that, we have reorganized our training focus with the kinds of airplanes that we have in the state. Predominantly, that's an air-to-ground mission as opposed to an air-to-air mission. We have F-16s, we have F-15Es, we have OA-10s. These kinds of aircraft are the ones that will go to other locations in the world, but must be proficient at training in air-to-ground. So we need to adjust our airspace in order to better accommodate that kind of training, and we'll show you how that works on the following map.

Additionally, we have trained in the state of Alaska using what's called both permanent MOAs—permanent Military Operations Areas, of which we've got six, and temporary Military Operations Areas. Those are additional spaces that are added on when we do big exercises. Those spaces that are added on are temporary in nature and as such, they are not charted on airspace maps. What we'd like to do in this proposal is make them permanent and have them charted on airspace maps, therefore, acting as an additional advisory so that civil pilots know where we're allowed to do our training.

Additionally, we have to repeatedly apply for that and over time, applying for those airspaces is a lengthy, bureaucratic kind of process you have to go through, costing us money. If we go through this one time, look at all the potential—any potential consequences of that action and get it approved, then we will not have to go back and apply for that airspace over and over.

Finally, the strategic location of Alaska is very, very important to the United States' national defense. If we have declining forces, which we do, the small amount of aircraft that we're left with needs to be as flexible as possible. Those few forces that we have in Alaska can deploy anywhere in the world faster than any other location in the United States. So to have the folks trained here and ready to go on a moment's notice is critical to our ability to respond in crisis.

The process that we have gone through started last year in scoping, where we came out and said here's the proposal, what do you think. We got a lot of input, we've made adjustments to that proposal based on the input that we've received from the public and other federal and state agencies. We've answered a lot of concerns in the documents that you have before you. That took about a year to put that document together. Which brings us to now, where we're bringing that back to you and looking for more comment. It will take roughly another year to get to a final and a record of decision. This will come back out to the public, probably next summer, to see if we have accommodated any further concerns that have been identified.

This big, thick document, it's about that thick, required by the National Environmental Policy Act, is basically just divided into four sections. The first part, and that's all summarized in this shortened version that you have there, why we need to do it; how we want to do it; what areas could potentially be affected; and then, what impacts that we identify.

We have tried to reach out and touch all areas of the state that potentially might be impacted by this proposal. We went to 15 locations throughout the state. In addition, we met with approximately 30 different interest groups, civil aviation groups, municipalities, other kinds of public forums, to get as much input as possible.

We started this process last week in Anchorage, we're here tonight and we'll go through the 12th of October holding public hearings, in addition to during the day, meeting with various interest groups.

Now I'd like to have Major Siter discuss the proposal itself and then we'll get into what issues were raised to us and how we've addressed them.

MAJ. SITER:

Thank you, sir.

Colonel Hassan has talked about changes and the reason why the proposed action is that it's before you. And that's true. And what it's done is it's the depth and complexity of our readiness requirements that have changed radically. It's forced us to take a look at our training programs and how our airspace can meet those revised training programs. And the bottom line is the restructure of airspace to meet those training and readiness requirements. When you look at change, you have to look at

what you already have. Major things like where our bases are located, where our facilities are located, where our personnel are housed are critical elements in terms of determining what are your flexible options to deal with change.

The bases, Elmendorf in Anchorage, Eielson in the Fairbanks area, were created in the Second World War. The three, and only three bombing ranges, and again, are depicted on this map here in red, this area here, this area right here--Yukon bombing range and the Blair Lakes range, those are the three and only three bombing ranges in the entire state. They were also created during the Second World War. You have to also look at how far can your aircraft travel in terms of determining where are the flexible or the reasonable alternatives to try to get your training done. And each aircraft has different fuel capacities and that's why some of these circles are larger than others. Okay. What it means, for example, I'll pick the F-15C model here out of Elmendorf, this green circle here. That's a distance--it can go out to military operating areas, do their effective training and then return home with a safe fuel level. The bombing ranges play a critical role on all the other three aircraft, the Strike Eagles here, the F-15Es, the OA-10s and F-16s, all again air-to-ground type of aircraft. They have to, almost on a daily basis, access these bomber ranges. And so again, that plays into where they need to get their training accomplished.

We're not the only one that has facilities out there. The Federal Aviation Administration created the Civil Airway Structure throughout the United States back in the 30s and 40s. They did so in Alaska. And these are highways in the sky that are used by both military pilots and commercial and civil aviation--(interrupted by school intercom)--So these are, again, kind of highways in the sky and they're (UNINTELLIGIBLE) a critical (UNINTELLIGIBLE). The location of them is important in that in 1976, the FAA instructed the Air Force to delineate and they gave approval for the Military Operating Areas that are in place today. They were places you can see, away from the airways to the extent possible. And what it's provided for the Air Force over the years was a good dispersant geographic of airspace.

Everyone knows in Alaska the weather can turn harsh in the winter and it can stay that way in regions of the state for a very long time. By--for example, if the weather's bad in this area of the state, we have other airspace where we can still get

our training done in. And again, giving the Air Force good flexibility. Additionally, what it's allowed us to do is disperse all our activity so we don't concentrate all of our activity in one portion of the state.

The temporary MOA structure has also been in existence for the same amount of time. However, it's been arrayed throughout the state to do a variety of different types of exercises. The ones that are in the proposal are depicted here in blue and they're shown also to give you an illustration how they're located away from the FAA route structure as well. Again, to minimize interference.

The proposal itself—modify five existing permanent MOAs. I'll start here in the southwest portion of the state and work in a clockwise fashion on the changes.

The first is Naknek 1 and Naknek 2. In the past year, the alert aircraft that were at King Salmon were relocated back to Elmendorf. And that was a reflection of the end of the Cold War and a change in our status. What we've done is moved those aircraft back. One of the primary uses of this airspace was alert aircraft going out here doing training missions to get some training done while we were on alert. But also aircraft from Elmendorf access this airspace and they do routine training day-to-day. So the bottom line is the hours of operation are going to be reduced from a 10 hour day operation to 5 hours. Because we just have less air traffic flying in that airspace.

Stony B here, depicted here and outlined in gold, is adjacent to Stony A. This is presently the only electronically instrumented airspace in Alaska. What it is, is antennas on the ground that receive signals from telemetry pods that are carried on the wings of the aircraft that broadcast the position of the aircraft, its altitude, heading, and airspeed. And it's all beamed off of a satellite back down to Elmendorf and it's all recorded on a video tape. The pilots all return from their mission, go into a theater and they run the tape. Well the tape can be run in many different perspectives. The whole airspace from God's-eye view from above, from one person's cockpit to see exactly what he's seeing out in front, many different perspectives. What does it do for the pilots? It gives them the best training possible in the state in terms of recreating and showing exactly what happened in the engagements. And that's not always easy to replicate, as you can well imagine, with people using voice recorders and just recalling it. What it does is it enhances training value a lot. The floor in Stony A at

the present time is 100 feet above ground level. The floor in Stony B is 3000 feet. Given the value of the airspace, our proposal is to lower that floor to 100 feet to match the Alpha floor.

Galena is kind of similar to Naknek in that, Galena Air Force Station had aircraft on alert for decades. And they've also been removed from alert and put back at Elmendorf. However, unlike Naknek, the primary user of the airspace was those alert aircraft since we do not routinely access Elmendorf to the Galena airspace on a day-to-day basis. What we want to do here is take this airspace and make it a "notice to airmen" system airspace only. Meaning that we would have to call the FAA and periodically activate it. We would do that for exercises. Every once in a while, both the King Salmon and Galena, aircraft are put out on alert to make sure all the equipment there operates correctly, all the personnel are familiar with the alert mission that we used to do for decades. So if the posture of the world were to change, we could flexibly respond in a timely manner and a correct manner.

The last airspace is Yukon 1. This is more of an administrative item in that the floor of Yukon 1 is the surface, but the Air Force doesn't train at the surface. All we want to do is just raise the floor of Yukon 1 to that of 2, which is 100 feet above ground level. So here's an instance where the floor is rising.

The second component, we assessed the conversion of existing temporary MOAs to permanent MOAs. I showed you earlier and said that the TMOAs, again we've been using them throughout the state, but the ones we would like to convert are located here. There are three major groups; the area here, the connecting MOAs here, and then the Fox MOA here.

This first airspace here is for two purposes. First being, that we need, when we do major flying exercise, to have a suitable sized training airspace in order to adequately handle the spacing requirements of the packages that we run into these three bombing ranges. Again, trying to replicate to the best of our ability the kind of air operations we did, for example, in Desert Storm in the Middle East. Also what we provide is access to routine airspace so we wouldn't have to always put all of our aircraft in the same permanent airspace. Again, trying to disperse the activity.

The southern portion here of Fox MOA is very, very important to the military in that

at the present time we don't have airspace that both bases can reach jointly. If you recall, I had some circles around Eielson on how far the aircraft can travel. And I had some circles around Elmendorf. Well, the intersection of those two circles is right here. This is the only airspace in the state where aircraft from both bases could go to one airspace and fly against each other. At the present time, we have a tendency for the F-15s to do their own training here against each other and the F-16s will do their own training up here. What it means is they don't ever see other types of aircraft. That is not a good evolution of a pilot's capability, always flying against his own type of aircraft everyday. As well, we would like to put the aircraft on the same team every once in a while. We put the F-15s with the F-16s so that they can learn on how they mission plan together, how they brief, how they are communicating in flight and how they orchestrate and operate together. Only by doing that, do you determine exactly and know for sure what the strength and weaknesses of the various aircraft that we can fly, so that when we do deploy, we're not learning things in combat that we could have learned in training. So again, critical for dissimilar type of training, as well as composite force training.

The middle area here is what we call the connecting MOAs. And they connect--attempt to connect the airspace and range space that presently are not connected and unduly hampers our ability to more realistically train for the air-to-ground mission that Colonel Hassan talked about earlier.

At the present time, you see the green airspace here, when aircraft are attempting to train to go with the idea of getting to the Oklahoma bombing range here, they reach the southern border of Yukon 1 and all their training stops. So all realism stops, all the aircraft stop here, start climbing up, start (UNINTELLIGIBLE) with the FAA, slow down and then they get permission to go on to the bombing range and they go on to the bombing range. What this proposal would allow is aircraft to transit through again, at subsonic speed, with the idea that this is not a maneuvering airspace, it's not sufficiently high in vertical altitudes, nor is it laterally wide. You've noticed that the airspaces are much smaller than the maneuvering airspaces. With the idea of getting to the bombing range, delivering their bombs and then returning back to the airspace. Again, providing more realistic training.

The third component is to create two new permanent MOAs. They're located in the immediate Eielson Air Force base area. The first one here on the north is Falcon MOA and the second one here is Clear Creek MOA. Which again, joins up to one of those three, and only three, bombing ranges in the state here, the Blair Lakes Range. The Falcon MOA serves to allow aircraft to transit from Yukon 1 airspace, which is shown here in kind of a hatch form, through there to reach the Eielson Air Force Base. Part of our exercise training that we do--we do it periodically during the year, not every day, but periodically--is to allow aircraft to go to the runway and do a simulated airfield attack. They don't drop anything, they just fly aircraft over. And what it does it provides training for civil engineers who repair runways, for our medical people who handle simulated casualties, as well as our maintenance people who have to handle generating sorties and getting aircraft in the air after an airfield has been attacked.

So the bottom line is, our whole team is training. It's not just about pilots training and navigators training, but the whole team. And this gives us a way of doing that. Whereas the Clear Creek MOA provides an avenue for aircraft to get to the Blair Lakes Range to the northeast of part of the range and do training here on this bombing range and then of course, to depart back to the airspace.

The fourth component is to (UNINTELLIGIBLE) our supersonic operations in five MOAs. The areas in the proposal that were evaluated are Fox MOA, Yukon 1, 2, 3--I'm sorry, Yukon 1, 3, 4, and 5. They are all being assessed at or above 5,000 feet. We do already have some airspace in this state that is approved for supersonic and it is all at or above 5,000 feet. When we do supersonic operations, I--I--people often look at that altitude and say would you continue to do it at 5,000 feet? And the answer is no. In fact, almost all of it is done very high. And the reason is, that when aircraft are trying to get the advantage on shooting air-to-air missiles, the higher and faster you fly, the further and faster your missiles will travel giving you a (UNINTELLIGIBLE) advantage over someone else who might very well be trying to shoot you down with an air-to-air missile. Additionally, when you're going faster like that, if for whatever reason you needed to leave an engagement, or leave an air battle, you can get out faster that way. So again, the idea is higher is better for the pilots.

Conduct joint and combined training. Joint training is the training that the Air Force does with the Army, Navy and Marine aviation components. Whereas, combined training is the training we do with our allies. For example, the British have come to Cope Thunder and the Canadian Air Force. Realize that that training is also done overseas. Our U.S. Air Force goes to Canada, goes to England and does training there as well. So it's kind of a mutual thing. This training is particularly valuable to us. We've invested a lot of money in terms of going to these exercises throughout the 80s. Because we made that investment, when we formed the coalition Air Force in the Middle East it worked very well. We believe that that's the wave of the future and we want to continue to invest in our pilots and keep training in this fashion. Because that—that's the way we believe conflicts will be managed in the future.

The last component is to conduct up to six major flying exercises per year. We are already authorized to do six per year. We've done anywhere from three to four exercises over the last few years with four proposed for next year. Again, this type of training has been very valuable to the Air Force. We learned the hard way in Viet Nam that it's not enough to train pilots to fly one-on-one and two-on-two. You've got to put them in these larger exercises so that the first time they get into an aerial engagement for real, i.e. a Desert Storm situation, he's done these type of exercises in peace time. So he's learned his lessons hopefully and his chances of survival will dramatically improve.

In the course of going around last fall, in our scoping meetings, people looked at the proposed action, and again looked at what they thought might be reasonable alternatives for the proposed action.

One of those alternatives was Alternative A. And simply what it was is the removal of Clear Creek airspace, which was attached to the south part of Falcon and enjoin that bombing range. One of those three bombing ranges. So that's being looked at as an alternative.

Additionally, Alternative B, which is on the map here. We've talked a little bit tonight about it. Looks at substitution of Yukon 4, which is right here, and then Yukon 5, which is right here, eliminating those airspaces and replacing it with

the MOA—Tanana MOA here, with the town of Tok being located right there. Now this airspace, because it's serving as a substitution for this airspace and this airspace, is a maneuvering airspace where aerial engagements would occur. Unlike what I've described earlier in the connecting MOAs where this is transit airspace. Aircraft are just flying from point A to point B. They're not turning, they're not being engaged by other aircraft. So it's a different type of airspace; maneuvering airspace. If this alternative were selected, then the new airspace would be certainly larger, with the Tanana MOA being a large maneuvering MOA and these two transit MOAs; Falcon and Clear Creek MOA. It's also being assessed for supersonic operations. Again, because it's being looked at as a reasonable alternative to the Yukon 5 and Yukon 4, which are also being assessed for supersonic operations.

During the course of the scoping meetings also, issues were specifically identified by the public. I show them all right here. The number 1 input item was air space management and aviation safety. However, wildlife, recreation, and subsistence also received a sizeable number of inputs and comments.

I'll turn it back over to Colonel Hassan.

COL. HASSAN:

Okay, we got issues identified. And as part of the issues identified, we now would like to focus in on what we identified as potential environmental consequences of these actions.

And I'd would just to define some terms for you so that as you look at the document you're familiar with what is being talked about.

First of all, cumulative impacts is kind of a high-falutin' term that simply means this: If you look at any particular piece of airspace, there's lots of different things that go on in there. It's not just one plane flying or one kind of activity going on. So when we talk about what consequences could occur, it is the sum of everything that goes on inside of there. So that's cumulative impact. So the numbers you see for the impacts that you will find out about, are all—is a total.

Secondly, the baseline we started with is how we fly today. And we were able to use some pretty well, scientific, standard kinds of methodologies. Noise is a fairly well understood thing. Folks know how noise affects them and studies done on

how noise affects animals. And those are things you can kind of take off the shelf, plug in the kinds of airplanes that you're flying and where they're flying and you get results. We had to develop some methodologies when it came to recreation, subsistence and wildlife. This was developed in consultation with other federal agencies, with state agencies, with tribal councils and with peer review. So that the academic community, etc., were brought in and there was a check done on these methodologies.

There are three levels of consequences that you'll see on the next charts. The first level is Level I, which is basically, there has not been any identified problems in the past, nor do we expect any in the future.

The second level we identified as adverse. This is primarily associated with a seasonal impact. For example, recreation in the state of Alaska, say in Fortymile area, pretty much occurs from the first part of June through the middle to the end of September. The impacts that you may see, that are Level II, in July, may not be the same level of impact that you'd find in February. So that's a seasonal kind of impact that may occur.

The Level III impacts are the most significant. Ones that, if the action was repeated over time, there may be a change in a wildlife habitat, there may be a change in a recreational use area and so you will find that we have identified some Level II and Level III impacts.

So I'd like to ask Mr. Ham to show you, specifically, this area.

BILL HAM:

There are impacts--the Level IIs and IIIs showed up in airspace wildlife, recreation and subsistence and I'd like to go through them and concentrate on Alternative B, which would be the immediate airspace around this area.

You've got a Tok located roughly inside the corner here Tanacross, just inside the MOA. You've got a pretty good volume of traffic going up and down the Alaska Highway, especially seasonally. You got a lot of people coming up from the "lower 48" that are flying through Northway and on up into Fairbanks. Traffic out of this area up into the recreation areas. Up into Eagle. Up into the Fortymile area. And even on up into the Yukon-Charley. And for this particular reason, with this being a maneuvering MOA, the potential for interaction with the civil air traffic was deemed

to be a significant adverse impact. Especially with the low altitude MOA here, it was assessed as a Level III. A potential for a significant adverse impact for flight operations in this Tanana MOA. Being maneuvering flight operations would vie with civil traffic year round, but probably in the summer months.

I'll go through some of the wildlife for you real quick. There were no wildlife species in this area that were assessed at a Level III. The Delta caribou herd, over on--near the Fox MOA and up into the Eielson MOAs were generally assessed at a Level III. It's a herd that's been in decline over the years. It's got a high economic value, it's a big hunted value both subsistence and recreational hunting. And it was assessed at Level III. Generally, any other wildlife species has a potential for Level II impact to be startled, possibly to be upset or disturbed potentially by low-altitude military operations. But the Delta caribou herd, because of other factors, was assessed at a Level III.

Waterfowl, in this area up the road up here, in the Buffalo MOA area; trumpeter swans, and also a little bit trumpeter swan nesting sites down here along the Gulkana, which would be on the very edge of the Tanana MOA. High number of trumpeter swan nesting sites in this area. It's a relatively rare bird and a potential for Level III impact during the nesting season, during that late spring, early summer nesting season.

Dall sheep, no Level III impacts in this immediate area, except right on the edge here. Potential again, in the lambing season of the Dall sheep. This is a winter use area shown here. The lambing area would be a smaller subset of that ADF&G would help define. And also up into Tanana Hills area, up in the Yukon MOAs.

Moose and Peregrines were not assessed at anything higher than Level II.

Potential for Level III impacts to your recreational resources in this immediate area. This is the Fortymile area, it was assessed at a potential Level III. That's a pretty pristine area, and low-altitude operations in it potentially could have a significant adverse impact on that Fortymile area. Could also--part of the Fortymile extends down into the Tanana MOA. And also you have your other recreational resources along the Taylor Highway here, some campgrounds and generally where people are going out, going out and hitting some trails. In the far western portion of this Tanana

MOA, you have the main stem of the Gulkana Wild and Scenic River and also the Delta River. You've got some different hiking trails along the Richardson Highway here, some campgrounds. Could all potentially, could be expecting predominantly Level III impacts during those summer months.

The subsistence use area. There are several communities that were assessed with the potential for Level III impacts. What you've got in this area right here, essentially, your Healy Lake, your Dot Lake community in the Buffalo MOA. That Dot Lake subsistence area would be stretching down into the Tanana MOA. And now you have the folks in the Tanacross, a high Native population, that were assessed to be fairly dependent on the subsistence lifestyle. In this whole area here, Healy Lake, Dot Lake, Tanacross communities were all assessed a potential Level III for low-altitude flight operations in--this is again the fall hunting months. The August/September caribou and moose months and even later in the year. The December time frame for caribou, a little bit later.

COL. HASSAN:

Okay, so we've identified potential impacts and what I'd like to go into now, is how do we handle that? And it's a term called mitigation and let me explain how that works.

Basically, mitigation is, we have training needs and training requirements that we need to fill. However, we also understand that as part of the Air Force mission is, is to be environmentally sound and secure and we want to also be good neighbors so that we do not want to have any undue impact on where it is that we fly. So, what we do is, is--let me deal with some of the things we do today which is called--we have a noise sensitive list.

We identify areas, for example where the lambing or the calving season takes place. Those areas are constantly updated for us and during those critical times of the year, we do not overfly those areas or we raise the floors that we can fly in those areas. On the Yukon-Charley River where the Peregrine falcon nesting sites are, we have a permanent 2,000 foot, two-mile wide exclusion area that we observe. We also look at areas, for example, around Circle Hot Springs and Central. We have a 10-mile zone that we don't fly in up to 35,000 feet of any supersonic operations.

We do not fly any major flying exercises during the first two weeks of September or over a two week period around the 4th of July weekend. Those are the kinds of things that we do today in order to mitigate any potential adverse affect that we have either on noise or subsistence or recreation activities.

For example, one other point that I'd like to make, while we have assessed what would the impact be if we flew at 100 feet, so that's the level of impact that we're looking at, there are no aircraft in Alaska that fly below 500 feet. And in fact, on a routine basis, the amount of training that's done between 500 feet and 5,000 feet is roughly only 20% of any pilot's given training. The majority of his training occurs above that altitude.

But what we wanted to illustrate here is, is the way we operate today, even though a pilot could be flying at 500 feet, when he would come near, for example, if this was the Yukon-Charley, it would be a two-mile wide exclusion and a 2,000 foot altitude. So even if he was flying at 500 feet, he'd have to climb to 2,000 and stay wide of the river. That's what mitigation's about.

In sum, we need, in our view, to achieve a balance. And we can only do that by understanding what it is that the potential consequences that our actions might have. We have addressed them up front in the study, we have identified areas that we could potentially impact, and we need to work with federal agencies, state agencies and most important, the public, to find out where those sensitive areas are and what issues that they want us to further address.

So with that, I'll turn the floor back over to Colonel Heupel.

COL. HEUPEL:

Thank you Colonel Hassan. Major Peck could I ask you to check and get the sign-in list for me please and we'll go right into the comment period right now. The address up here is the same address that should be listed at the top of the comment sheets that you were given. You'll notice there are also some phone numbers down here where you can contact the Air Force. If you do have written comments that you would like to make, just go ahead and send them to that address.

So far I see one person right now that's indicated that they want to speak. So I'm going to call on Christopher Lang at this time. Mr. Lang, what I'll ask you to

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do is, if you would, just come on over here where I am and I'd ask—I'll go sit over there and ask that you kind of address your comments to me or your questions.

We've got microphones up here, as you may have noticed we have a court-reporter who's sitting up here and he's taking word-for-word everything that is said tonight. And this will all become a part of the final EIS report.

So, Mr. Lang, I'll turn it over to you.

CHRISTOPHER LANG:

My comment's on the maneuvering airspace in the proposed Tanana MOA. I'd like to know the vertical limits relating to the airway that goes through that MOA all the way to Delta. And also that it is the—it's a heavily used airspace area and our company, Forty-Mile Air, uses this daily in—in the narrow section of the Tanana MOA. Plus, we use it twice weekly going towards Eagle. And, while these are published schedules, I need to know for my operations, and for my company's operations, what the limits are going to be, how we will be advised and will we have a benefit that's going to come from new equipment that will look into these MOAs? That's one of my concerns. So if I can have any answers on that now, I'd like it.

COL. HEUPEL:

Are there some answers that can be addressed?

COL. HASSAN:

Sure, sure. What...

First of all, let me say that this is a proposed action here, so there's nobody that said Tanana's going to appear yet or at all. Second, I'll have Major Siter address some of the technical areas of the thing, both in terms of what the limits are and in terms of what we may have to look into this area.

MAJ. SITER:

You raised a very good point. In our analysis we do address the Victor routes that you—there's actually three of them, okay. And they're one of the driving forces behind, in addition to what he's already addressed as far as what the Level III impacts are, those routes impact—the airspace would severely impact those three routes. And that's another reason driving the Level III impact for the Tanana airspace.

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Okay. And one other thing, you raised a good point, again this is independent of the EIS process, but I brought a depiction. What Mr. Lang is referring to is the special use airspace information system. And what I'll do is use this map here. But I just wanted to show you that we have two new radars that were put in position this past year. Back in June we instituted a Letter of Agreement with the FAA to provide a flight advisory service to both military pilots and civilian pilots. The two antennas are located, one here in the Donnelly Dome area, just between the Tanana—proposed Tanana MOA and the Fox MOA right here and then another antenna over here near the Yukon bombing range, one of those three bombing ranges.

What it provides is a low-altitude radar and radio coverage out across up to the Yukon River and out to the east. Because, again, these are all on the ground, there's line-of-sight with the mountainous terrain that's out to the east and certainly to the south. It looks predominantly to the north because the Alaska Range being down here would block radar coverage. What it provides is very good radar coverage through this VFR flyway that Mr. Ham was talking about, the high density traffic area. And pretty much provides low-altitude coverage 2,000 feet AGL—above ground level—literally almost to the entire Buffalo air. Kind of cuts through the two-thirds area here. Out on the Tanana MOA, aircraft would have to be higher than 2,000 feet to be seen. Okay? So it will provide radar coverage, range wise, but in terms of being out of ground clutter and out of mountainous terrain, less ability to see low altitude targets out here.

What the pilots are able to do is come up on Eielson Range Control, 125.3, and ask what the status of Military Operating Areas are, whether they're hot or cold, as well as what is the military activity out there. Okay, and the idea is to give the pilots, both military and civilian, more information than they have presently gotten in the past, so they know what the activity level is and they can make prudent decisions on how to do their job. Whether it be Forty-Mile Air trying to transport passengers or the military trying to conduct its training. And again, the idea is to increase everyone's situational awareness that we're making prudent decisions.

COL. HASSAN:

Talk about the boundaries and floors and ceilings...

MAJ. SITER:

The Tanana MOA was assessed, I believe, at 300 feet through the area and 3,000 feet in the eastern-western area here. The 3,000 foot floor here, the dividing line is somewhat over here and then 300 feet AGL over here.

CHRISTOPHER LANG:

And that includes over the Alaska Highway, too? I mean there's no exclusion zone for the Alaska Highway?

MAJ. SITER:

That is correct.

Bill Ham:

It was not assessed but that could be a potential mitigation.

MAJ. SITER:

The whole idea is we assessed and those impacts, what you're talking about, obviously, we were concerned about the VFR flyway, which goes all the way from Northway across here. So those impacts are identified in the document. And that's one of the reasons, again, driving Level III impact. Okay? Not the sole reason, but collectively, again those effects to the IFR structure, the Victor routes, as well as the fact that this is a maneuvering MOA. Unlike the MOAs that are over here, these are -the military aircraft fly in a straight line, wings level, drive to a point. This is aerial engagements, a much different type of airspace than transit airspace.

COL. HEUPEL:

Now, did that answer all the questions you had, Mr. Lang?

CHRISTOPHER LANG:

It answers some of the questions that I have. How do you propose to use maneuvering airspace with an active airway--two active airways there? There's a low-frequency airway and then there's a Victor airway that goes through that.

MAJ. SITER:

That--that's one--again, that's another reason driving Level III impact. The ability to do that is not going to be easy. In fact, air safety-wise, we've assessed at a Level III impact.

COL. HEUPEL:

Can you explain what's the significance of Level III impact? I realize you said something about it, but I'm not sure, and I'm new to hearing this myself, so I'm not sure that people necessarily understand what that means in terms of impact.

COL. HASSAN:

This is our own assessment, which is a conservative one, I mean, we took great pains to--first of all, this piece of the proposal was added on by the public. The public up here and the federal agencies said why don't you look down here. So we added that on, that's the first thing, just to look at. And then secondly, when you look at--when we looked at the impacts, we had to make an honest assessment that said, Level I, again, is--shouldn't be a problem to anything or anybody. Level II is something that's probably associated with just a seasonal thing. For example, on the wildlife, we have found that if we avoid certain critical periods in the wildlife cycle and we stay away, then in the main, that can be mitigated. A Level III impact says, that's something that's fairly significant. It's gonna be probably pretty difficult to operate under those conditions. So we've identified this area, as far as airspace management and safety, a Level III impact.

PETER BUTTERI:

So why are we talking about it?

COL. HASSAN:

We have--we have to go through the process.

COL. HEUPEL:

We need to have things go a little bit slower for the court-reporter. And if you can hold off--go ahead, the people in the audience--we'll try to pick it up and have you come on up and as soon as Mr. Lang is done and go further.

MAJ. SITER:

Sir, you raise a very good question though. If, in fact, we've assessed it to that level, why even talk about it. Part of the environmental impact process that we went through, we came out and talked to everyone around the state about the proposed action which does not involve the Tanana MOA. The proposed action, in fact, as I talked earlier on the map, was substitution of airspace up here, with airspace down

here. This is not the proposed action, this is an alternative that the process—the public process has derived. And so by law, we must assess this alternative equally with the proposed action. By doing that tonight, we've shown you what the relative impacts are for Alternative B. Realize this is an alternative, it is not the proposed action, but we must, by law, assess it equally. We devote analysis resources to each of these different alternatives in an equal fashion. So that's why we're here tonight talking about this.

CHRISTOPHER LANG:

So you've got to go to the other areas that say we don't want you in our backyard. And say, look folks, the Tanana MOA has got Level III impact and it's just really not going to be that feasible, maybe, without a lot of mitigation.

PETER BUTTERI:

You haven't said anything about what the impact of the proposed—how does this—the impact of this alternative compare with the main proposal?

COL. HASSAN:

We have to look at it category by category, but I can answer in the terms of the airspace management. There were very--the airspace safety, and that's predominantly what Mr. Lang's questions have been focused on. There are not a lot of other Level III impacts from the airspace management and safety.

PETER BUTTERI:

And a further question, you're identifying the Tanana Zone there as a Level III impact. Is that an overall level of impact, or is it just...?

COL. HASSAN:

Just for that category. That's why he walked you through several categories. But you saw, that in the terms of subsistence, and in the terms of recreation, there were other chunks of Level III impact as well. So we divided it down. There were basically four categories: airspace management and safety; recreation; wildlife; and subsistence; that in our analysis we identified either Level II or Level III impacts. The other four categories that were raised in scoping, none of them came up as Level II or Level III.

COL. HEUPEL:

Let me get back to Mr. Lang. Anything else from you sir?

CHRISTOPHER LANG:

The Yukon 3 MOA, which is on that chart, which extends up to Eagle, what are the levels of the impact that you've assessed for that whole area? Particularly going Tok-Eagle straight line.

MAJ. SITER:

For airspace management safety, Level II.

COL. HASSAN:

In certain areas.

CHRISTOPHER LANG:

In certain areas. How about for the recreational aspects of it?

Bill Ham:

Threes along the Fortymile.

COL. HASSAN/SITER:

Three down the Fortymile; down this drainage here, sir.

CHRISTOPHER LANG:

So again, you have to look at this one. Because of the Level III impact, you have to take a deeper look at the impact.

COL. HASSAN:

And we would have to come up with some way to mitigate it. We can't identify a Level III impact and just walk away from it.

CHRISTOPHER LANG:

Okay. That's find.

COL. HASSAN:

And even at a Level II impact, we have to address.

CHRISTOPHER LANG:

Right

MAJ. SITER:

We have to at least consider mitigation, sir, by law.

CHRISTOPHER LANG:

Right.

COL. HASSAN:

And that's why we're here, frankly. We're looking for a balance. We need to hear from you. You're obviously concerned about Level III impacts in this area and that will be noted. CHRISTOPHER LANG:

We deal with airspace, we deal with wildlife, and the recreational use of that Yukon 3 MOA almost exclusively. And that particular chunk of airspace would impact us with airspace problems, but also with recreational-wildlife problems, because we have to deal with those too, as a company. And that's about it for what I have to say. Thank you.

COL. HEUPEL:

Okay, thank you, Mr. Lang. I don't have anybody else signed up to speak, but let me go ahead and call on people. Sir, if you'd come up here and if you'd ...

WAYNE STOUT:

Can I do it from this end?

COL. HEUPEL:

Just a second, just a second before you start in. (To court reporter) Are you able to pick him up there?

REPORTER:

(Moved microphones) Should be okay.

COL. HEUPEL:

Okay. If you could just put it down there, because holding it will create some more noise.

What's your name, sir?

WAYNE STOUT:

My name is Wayne Stout.

COL. HEUPEL:

S-T-O-U-T?

WAYNE STOUT:

Correct.

COL. HEUPEL:

Okay, go ahead sir.

WAYNE STOUT:

I'd like to point out little details, like between North Pole up here and Fox to the town from Fairbanks. It's not on the map. It's a number one flight path, everybody comes here. They go all down here. A lot of what you're talking about was connecting from here to here. That's what you want to do for the flight route, right? Is increase the flight route. I can see what you want to do, but this is established. Fairbanks does exist, it's a big city. It's got the main flight path to get to the United States, which is connecting the civilian Alaska with 728. It goes straight down here. It goes straight through there (indicating on map).

As a taxpayer, I want to know why we're even talking about it?

COL. HEUPEL:

Why we're talking about...

WAYNE STOUT:

You can't—you can't have people twirling around here when you've got a main flight route coming straight through.

COL. HEUPEL:

The reason why we're talking about it, is what was being referred to earlier, that this is an action that has been proposed as an alternative and therefore, it's got to be studied. And in terms of an overall Environmental Impact Statement it's got to be considered as part of the study.

What will be ultimately adopted, they're going to have to take a look at what are all of these impacts and what can be mitigated and—and try to come up with the best decision. But by law, all these different things have to be studied and that's—so that's the reason why it is. But obviously, you object to it.

WAYNE STOUT:

Not really if it makes sense, I can see you need a bigger area. But I don't see why you want to spend time crossing the main flight path through here. I mean all our wives and kids and ourselves fly and we all have to travel through here where all the the aircraft are going.

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MAJ. SITER:

And that's why when we do the analysis there is a strong distinction between what a maneuvering airspace is, because you bring up a great point. If you've got aircraft turning around and engaging each other, how well are they able to identify, locate, and deconflict away from civil aviation, which is your concern?

WAYNE STOUT:

Right.

MAJ. SITER:

Okay, that's what's driving—one of the reasons it drove a Level III impact here. Because that maneuvering is not as easy to do as these. For example, aircraft that are transiting at wing level, they are spending a lot of time seeing and avoiding civilian aircraft that they would not have the time to do out here while they're engaged with other military aircraft. Okay, and again, that's why the level of impact is influenced by what is actually going on in those airspaces. We must look specifically at the function and use of those airspaces and determine the state of the impact on general aviation.

COL. HASSAN:

And the only reason—and you have a good point. The only reason we even are considering this, is back when Major Siter was talking about how we're constrained to do our training, and we need to go to air-to-ground training. This is—these are the only bombing ranges we have in the state and they've been here since the Second World War and we don't want to create more new ones or anything like that. So in order for the guys to—to train, when they come to this point, all we're asking for in this proposal is, in these particular two chunks is so that they can just go straight down in. Not fly all around, just get access to go into the bombing range.

So it wouldn't be happening all the time. And with the addition of these radars, we're going to have a much better picture right in this general area so that as the guy begins to transit through, he will know where civilian traffic is, as well as if people come up on this 125.3, they'll be getting information that says there's either airplanes in the area or there're not. So it's not going to be the way it is today, like from 8:00 to 6:00, you may or may not see military airplanes. If you come up on

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125.3, you can say, "Hey, I'm coming through this area, it's 12 o'clock, here's basically my position. Are there any military airplanes around?" And you will get a—right there on the spot—"Yes there are," or "No there aren't." To act as an additional advisory. And they'll be looking for you and that kind of thing.

WAYNE STOUT:

Do you play around with main traffic routes down in the states?

CHRISTOPHER LANG:

Pretty close, pretty close. Wyoming, Montana.

WAYNE STOUT:

Scary, huh?

CHRISTOPHER LANG:

As long as you're on radar, it's okay.

COL. HEUPEL:

And that's Mr. Lang.

CHRISTOPHER LANG:

Right. And I'd like to ask one more question. Is your traffic advisory frequency...

COL. HEUPEL:

Could you come up here or over there to the microphone?

CHRISTOPHER LANG:

Sorry. Can you put other single frequency outlets somewhere down the Tanana Valley so that we've got a little preview?

MAJ. SITER:

Repeater. Repeater transmitters.

One of the reasons why we did the test, it was a 90-day test, was to determine—determine if the Letter of Agreement and the procedures were sufficient. One of those things we're looking at is the terminology correct, are we communicating well? Is the radar coverage area that we think out there accurate? Okay, what about the radio coverage? If the radio coverage is insufficient, that would be a suggestion so that we could make and consider physical improvement by adding more antennas.

What's happened over the last three years, is we have added antennas. The coverage in 1993 was this area about right here (indicating map). In 1994 the coverage is out around here. And by 1995 it will be all the way out to the Yukon River.

CHRISTOPHER LANG:

This is radar?

MAJ. SITER:

This is radio coverage. There's two and only two radars and I've got coverage maps that we can look at later, if you'd like, to get more detail of exactly how the radar coverage takes into account the terrain and the shadowing the terrain can create. And I can cover that in more detail with you, sir.

CHRISTOPHER LANG:

Sure. Thanks.

COL. HEUPEL:

Okay, now, do we have anybody else that has any comments they want to make or has any questions? I want to jump in here.

If you'd go ahead and come on up here, if you would, please. For the microphones, it makes it better. Would you go ahead and—say your name again and spell your last name?

PETER BUTTER:

Peter Butter, B-U-T-T-E-R-I.

I'm wondering, at the present time is there—are there authorized military flights in this area here?

MAJ. SITER:

No sir. No sir. At the present time, there is no charted airspace in this part of the state. So the answer is no, sir.

PETER BUTTER:

For—I mean this is Air Force or any military planes, because we do, fairly regularly, get military planes low flying over...

MAJ. SITER:

You're asking about airspace, there's no charted airspace. But what we have, just like the Fortymile Air—any other civilian aviation carrier, below 10,000

feet, the FAA mandates that all aircraft must fly at or below the speed of 250 knots. And if they are able to do that, they can also fly in airspace outside of the military operating areas. The purpose for military operating areas was to also contain high speed jet traffic. Okay, so C-130s and A-10s which operate below 250 knots, are the aircraft that you are routinely—when you see them, those are the type of aircraft that are out—outside of the military operating area. They may, in fact, be (UNINTELLIGIBLE).

As well as we have military training routes. Which are low altitude training—navigation training areas where we are on a prescribed route and we have to go from Point "A" to Point "B" to Point "C" and we practice navigation training. And where those routes are, you may see military traffic. And that might be high speed traffic, realizing that the 250 knot restriction does not apply because those are routes that are charted on the aviation sectional maps and whatnot.

PETER BUTTER:

Okay.

BRIAN HOEFLER:

Let me just point out where one is. There is one that comes out of Elmendorf and it traverses up this way, north of Paxson, across this exclusion area, across the highway here and up into the Yukon MOA so there is one...

PETER BUTTER:

That's the one.

BRIAN HOEFLER:

That's the brand-new one.

PETER BUTTER:

It hasn't been used?

MAJ. SITER:

Not much. They were charted in the last year sir.

PETER BUTTER:

Oh, okay. But it has been A-10s and C-130s that I've seen.

MAJ. SITER:

Which probably means they were probably traffic that was not on an MTR.

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Though A-10s and C-130s can fly MTRs just as well as the higher speed fighter aircraft can fly the MTRs.

COL. HEUPEL:

MTR being...

MAJ. SITER:

Military Training Routes.

COL. HEUPEL:

Any other comments or questions?

WAYNE STOUT:

I'm just curious...

COL. HEUPEL:

Mr. Stout.

WAYNE STOUT:

Wayne Stout.

I've seen a lot of aircraft flying up and down here, like at 9 o'clock in the morning. What's that about?

MAJ. SITER:

Do you know what type of aircraft they might be?

WAYNE STOUT:

Little silver things way up in the sky, leaving a trail of smoke behind them.

MAJ. SITER:

That might be airlines, airlines. It could be a jet airliner doing a Polar route. A lot of the traffic that goes down into Anchorage comes across Polar routes. What you're seeing are contrails, which are probably aircraft 25, 30,000 feet or higher. Particularly in the summertime, those contrails are very high altitude.

COL. HASSAN:

But those aren't military guys.

MAJ. SITER:

Those are probably commercial aviation, sir.

WAYNE STOUT:

Why do they leave smoke trails?

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MAJ. SITER:

It's vaporization under exhaust at high altitudes. Vaporization under exhaust pattern.

WAYNE STOUT:

Okay.

COL. HEUPEL:

Okay, anybody else?

That concludes this part of the process, but let me again point out that you do have until the 30th of November to send us any written comments. So if--if what's been said here has piqued some of your additional interest, remember that the entire Draft Environmental Impact Statement is at the library in Tok and it's got a lot of--a lot of additional charts and graphs and provides far more detailed information. So, I would invite you to take a look at that and send in your comments and particularly what your thoughts are from environmental safety standpoint and whether there's anything that we're missing or we ought to be aware of that we haven't covered or anything else you want to emphasize that you don't think has been emphasized enough. Thank you very much for your participation tonight.

CERTIFICATION PAGE

I, Diane A. Beaulieu, do certify that this transcript is an accurate record of the proceedings as recorded.

Dated: 10/21/94

Subscribed and sworn to
before me this 21 day
of October, 1994.

Sandra M. Davis
Notary Public
My Commission Expires: 5-1-97

Diane A. Beaulieu

Addendum:

The tape and transcript of the Tok MOA DEIS hearing were reviewed beginning with the public comments first given by Mr. Christopher Lang and continuing through the end of the document. Corrections were made accordingly to the electronic (disk) and hard copy versions.

Karen McKibbin
Spectrum Sciences and Software, Inc.
November 22, 1994

ALASKA MILITARY OPERATIONS AREAS

PUBLIC HEARING

CIRCLE HOT SPRINGS, ALASKA

SEPTEMBER 20, 1994

COL. MCSHANE:

Good evening. Welcome to the public hearing of the Draft Environmental Impact Statement for the Alaska military operations areas. Thank you for coming tonight. I solicit your comments and involvement in tonight's hearing. For those of you who have not had an opportunity to review the draft statement (UNINTELLIGIBLE). I'm Col. Mike McShane and I will serve as the presiding officer for this public hearing. I'm a military judge for the Air Force assigned at Randolph Air Force Base, Texas. I'm not (UNINTELLIGIBLE) involved in the development of the draft statement (UNINTELLIGIBLE) anyone concerning this proposal. My role is limited to (UNINTELLIGIBLE) that we have a fair, orderly hearing (UNINTELLIGIBLE). I expect there will be a variety of comments and (UNINTELLIGIBLE). I would like to introduce tonight's briefers to you. Col. Rich Hassan from the 611th (UNINTELLIGIBLE) from Elmendorf (UNINTELLIGIBLE) overview of the environmental impact (UNINTELLIGIBLE). (UNINTELLIGIBLE) later talk about mitigation. Maj. Bob Siter will talk about the proposal (UNINTELLIGIBLE) Mr. Bill Ham from Spectrum Sciences (UNINTELLIGIBLE). Now I'd like to (UNINTELLIGIBLE) process (UNINTELLIGIBLE) the Air Force has prepared a Draft Environmental Impact Statement on the Alaska military operations areas in accordance with the National Environmental Policy Act (UNINTELLIGIBLE) regulations. The purpose of this hearing is to summarize, for you, the results of the (UNINTELLIGIBLE). Tonight's hearing is in two parts. (UNINTELLIGIBLE) the first part the briefers (UNINTELLIGIBLE) environmental impact analysis process performed for the Alaska military operations areas (UNINTELLIGIBLE). The briefing takes about 45 minutes and is required by law. The second part of the hearing is the public participation portion where you will have the opportunity to comment on the

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Draft Environmental Impact Statement. The hearing is intended to provide a public forum (UNINTELLIGIBLE) your input (UNINTELLIGIBLE) provide (UNINTELLIGIBLE) adverse environmental impacts that you think may result (UNINTELLIGIBLE). Keep in mind that this hearing is not a debate nor is it a referendum (UNINTELLIGIBLE) draft EIS. The focus of the hearing is on the environmental impact associated with the proposals being studied by the Air Force. (UNINTELLIGIBLE) When you came in tonight, you were asked to (UNINTELLIGIBLE) have not had an opportunity to sign up (UNINTELLIGIBLE) do not want to make an oral statement tonight, (UNINTELLIGIBLE) can do so in writing. (UNINTELLIGIBLE) any comments that are made (UNINTELLIGIBLE) orally or provided in writing (UNINTELLIGIBLE) will be given equal consideration (UNINTELLIGIBLE). However, if you (UNINTELLIGIBLE) you have until 31 October 1994, (UNINTELLIGIBLE) the address is on the forms that are available (UNINTELLIGIBLE) your opportunity to provide the Air Force with any information that you may have regarding (UNINTELLIGIBLE)

COL. HASSAN:

Thanks.

We (UNINTELLIGIBLE). The reason we're here tonight is to address the specific Environmental Impact Statement process that we've gone through over the last year. I'll give you a brief overview (UNINTELLIGIBLE) refresh your understanding of (UNINTELLIGIBLE). We'll talk about what was learned last year. Identify some of the impacts that were (UNINTELLIGIBLE) still a year away. (UNINTELLIGIBLE) although, as we just alluded to in our conversation before we started, that does not mean (UNINTELLIGIBLE) taking an action (UNINTELLIGIBLE) not just here, but in other parts of the state. (UNINTELLIGIBLE).

So even though we haven't made a final decision on this document, again, we're not going to wait until next year to make changes. We're not looking at increasing the amount of flying that goes on in the state. We're also not (UNINTELLIGIBLE) military operations areas, which are those areas we're allowed to train in, does not exclude the public from having access to that airspace. And (UNINTELLIGIBLE)

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interested in (UNINTELLIGIBLE). The reason that we're adjusting the airspace structure is simply for many years, (UNINTELLIGIBLE) for Alaska based forces have been focused on the Cold War. (UNINTELLIGIBLE) a lot of air-to-air training to get ready to (UNINTELLIGIBLE). As the times have changed, the world situation has changed, the forces in Alaska must train to be able to deploy to hot spots around the world. In order to do that, (UNINTELLIGIBLE) air-to-ground and so, (UNINTELLIGIBLE) adjust our airspace structure to better accommodate that training (UNINTELLIGIBLE) we have temporary military operations areas that we use today. Temporary military operations areas are (UNINTELLIGIBLE) for a short period of time. And as such, they are not charted on airspace (UNINTELLIGIBLE). So by converting temporary military operations areas to permanent areas, we will have them charted and that will add additional advisories so civil aviators (UNINTELLIGIBLE) allowed (UNINTELLIGIBLE).

Again, the Environmental Impact Statement process, we are allowed to have a lot of interaction with the public. We have had that. (UNINTELLIGIBLE) we will show you places (UNINTELLIGIBLE) based on inputs that we got from the general public and other federal agencies.

Saving tax dollars is (UNINTELLIGIBLE) associated with the temporary MOAs. (UNINTELLIGIBLE) have to repeatedly apply for temporary airspace. It will eliminate the need to go through the lengthy paperwork process with the FAA. We've spent well over a million dollars in the last several years to do that. (UNINTELLIGIBLE) this proposal (UNINTELLIGIBLE) eliminate.

Alaska has become major (UNINTELLIGIBLE) for forces. (UNINTELLIGIBLE) as we draw down the amount of aircraft that we have, those few aircraft we have in Alaska become that much more important because (UNINTELLIGIBLE) over the Pole to the east (UNINTELLIGIBLE) deploy directly west. And that is a luxury that does not exist anywhere else in the United States. (UNINTELLIGIBLE).

The process we have gone through consists of (UNINTELLIGIBLE). Last year at this time we were here and that was the scoping phase. We came, we asked your input, we got a lot of input from 15 locations throughout the state. Over the past

year we have put together the document that you have before you today. We identified a lot of impacts within that document. Again, we'll discuss those (UNINTELLIGIBLE). We're in the public hearings, which is the (UNINTELLIGIBLE) now, where you have the chance to continue to help us to (UNINTELLIGIBLE) the document. To identify any areas that you think (UNINTELLIGIBLE) identify areas you think might have been missed, where to lend any support that you feel as though we might have done (UNINTELLIGIBLE). It will take roughly another six to eight months to go back and reanalyze (UNINTELLIGIBLE) that need to be reanalyzed. Add pieces. And then by about this time next year, is when we hope to be prepared to present some sort of decision.

The document itself, now you've got an Executive Summary copy there, but the document itself, and you've got one whole one here, is about four inches thick and it's composed of these elements:

The first part talks about why we need to do this.

The second describes what it is we want to do.

The third part talks about those areas, like here, where action, activities are going to take place.

And the fourth section identifies those impacts that we have found as potential because of our actions.

These are all the locations that we are going to go to. We started in Anchorage last night. (UNINTELLIGIBLE) here tonight. And we go all the way through to the 12th of October.

We will take the written comments all the way through the 31st of October. So again, we will leave those documents with you (UNINTELLIGIBLE) there are any folks out there that would be more comfortable with just writing their concerns down. That's equally, (UNINTELLIGIBLE) verbal or written, it doesn't matter.

Now I'd like to turn it over to Maj. Siler and he'll go (UNINTELLIGIBLE).

MAJ. SILER:

Col. Hassan (UNINTELLIGIBLE) why (UNINTELLIGIBLE) the Air Force (UNINTELLIGIBLE) how to accommodate its readiness requirements. (UNINTELLIGIBLE) ready to go to combat. You have to take a look at what sort of

things do we already have in place. Like our bases here. Elmendorf and Eielson. These bases were created in the Second World War. You have to look at that (UNINTELLIGIBLE). Another critical (UNINTELLIGIBLE) bombing. Those are critical now (UNINTELLIGIBLE) have aircraft (UNINTELLIGIBLE). They're all located in a central area here just south of (UNINTELLIGIBLE) and they were also created in the Second World War.

Our aircraft. How far can they travel depends upon how much fuel they can carry. And it depends upon the type of aircraft. (UNINTELLIGIBLE). What this is, (UNINTELLIGIBLE) the distance that an aircraft (UNINTELLIGIBLE). The F-15 (UNINTELLIGIBLE) those aircraft (UNINTELLIGIBLE) almost every mission they fly, (UNINTELLIGIBLE) realizing (UNINTELLIGIBLE) Eielson. They might go to the military operating areas, train for a while (UNINTELLIGIBLE) F e d e r a l Aviation Administration also has flying structures that they've laid out (UNINTELLIGIBLE) United States. The location of those (UNINTELLIGIBLE) 1976, the FAA (UNINTELLIGIBLE) highways in the sky (UNINTELLIGIBLE). What it's provided the Air Force in Alaska (UNINTELLIGIBLE) of airspace (UNINTELLIGIBLE) Alaska. As you all well know, in Alaska the weather can vary (UNINTELLIGIBLE) but it also provides (UNINTELLIGIBLE).

Temporary military operating areas (UNINTELLIGIBLE) as Col. Hassan (UNINTELLIGIBLE) earlier, what it does it provides us enough airspace (UNINTELLIGIBLE) our exercises, to conduct major flying exercises. And again, to try to confine us to a smaller area so (UNINTELLIGIBLE) to do that type of training. Again, when we created these temporary MOAs (UNINTELLIGIBLE) structure (UNINTELLIGIBLE).

I'll talk now about the proposal. The first component is (UNINTELLIGIBLE) environmental impact of (UNINTELLIGIBLE) permanent MOAs. I'll start down here in southwest Alaska and work in a clockwise fashion. Naknek 1 and Naknek 2 here are (UNINTELLIGIBLE) very close to King Salmon Air Force Station. We've had alert aircraft (UNINTELLIGIBLE) for several decades. Those aircraft were moved back to Elmendorf. What it's done (UNINTELLIGIBLE) number of hours for operations (UNINTELLIGIBLE) 10-hour operation is going to

(UNINTELLIGIBLE) down to a five hour operation (UNINTELLIGIBLE).

Stony B is (UNINTELLIGIBLE) airspace (UNINTELLIGIBLE) Stony A is the only fully electronically instrumented airspace range in Alaska. What it is, there are antennas on the ground that can track pods you put on your airplane so it can track exactly what altitude you're at, what heading you're on, where you're going (UNINTELLIGIBLE). It's all (UNINTELLIGIBLE) sent to a satellite back down to Elmendorf and saved on a video tape. The pilots come back from flying, they get into a theater and they can see what all the aircraft did, cause they're all carrying those pods. What type of action occurred. (UNINTELLIGIBLE) training (UNINTELLIGIBLE). The other airspaces, it's often times difficult to figure out exactly what happened (UNINTELLIGIBLE). So it's very valuable airspace. Our proposal here is to lower the floor in Bravo, Stony (UNINTELLIGIBLE) to the west, to the same altitude as A, which is (UNINTELLIGIBLE) off the ground.

Galena airspace here, Galena Air Force Station is located about eight here. Those aircraft on alert were also (UNINTELLIGIBLE) last year to Elmendorf. Again, reflecting a change in the (UNINTELLIGIBLE) Cold War. This airspace is being changed to a "notice to airmen only" airspace. What that means is, we have to go to the FAA and tell them that we'd like to activate it for a day or two, do an exercise, allow the aircraft to fly out from Elmendorf, reconstitute Galena Air Force Station, (UNINTELLIGIBLE) do some training in Galena MOA and then go home and close down the airspace.

Yukon 1 (UNINTELLIGIBLE) right down to the ground. Whereas before, in Yukon 2, is 100 foot above the ground. We don't train at the ground level. (UNINTELLIGIBLE) permanent MOAs (UNINTELLIGIBLE). The airspaces that are involved here are (UNINTELLIGIBLE) border of Yukon 3, 4 and 5 (UNINTELLIGIBLE) and what this (UNINTELLIGIBLE) provides to this airspace up here, that (UNINTELLIGIBLE) sized airspace to conduct exercises. What it also allows the aircraft out of Eielson and Elmendorf (UNINTELLIGIBLE) not have to concentrate all their flight activity (UNINTELLIGIBLE). Again, (UNINTELLIGIBLE) environmental impact. A second (UNINTELLIGIBLE) is down here and it is called Fox MOA. Again, Eielson (UNINTELLIGIBLE) Fairbanks here. What it is, is that

airspace that we saw earlier had the circles going around Eielson and circles around Elmendorf, this is the only airspace that it intersects both circles. (UNINTELLIGIBLE) that both aircraft from Eielson and Elmendorf can both reach this airspace and train either against each other or train on the same team. That's real important for us, if all I'm ever doing (UNINTELLIGIBLE) pilots flying (UNINTELLIGIBLE) I'm not gonna be as good a pilot and I'm not ready for combat (UNINTELLIGIBLE). So I want to fly against those F-15's that are (UNINTELLIGIBLE), but I've got to get to an airspace where I can do it. The same thing is if I never get on the same with F-15s, (UNINTELLIGIBLE) periodically (UNINTELLIGIBLE) couple of months, I don't know what (UNINTELLIGIBLE). (UNINTELLIGIBLE) fighter pilots, we all have different terminology and different types of jobs. (UNINTELLIGIBLE) an air-to-air (UNINTELLIGIBLE) work together. I try to (UNINTELLIGIBLE) think and how they talk and how (UNINTELLIGIBLE). (UNINTELLIGIBLE) don't want to learn those type of things while they're in actual combat (UNINTELLIGIBLE). (UNINTELLIGIBLE) very valuable (UNINTELLIGIBLE).

The first component is that middle space. Here are the three, and only three, bombing ranges in Alaska (UNINTELLIGIBLE) Eielson (UNINTELLIGIBLE) Fairbanks over here and one of our limitations today (UNINTELLIGIBLE) every day, is that our aircraft reaches the southern border of Yukon 1, they (UNINTELLIGIBLE). These airspaces only exist during the exercises (UNINTELLIGIBLE) here. Our pilots are forced to climb up and talk with the FAA. (UNINTELLIGIBLE) radar contact, radio contact, (UNINTELLIGIBLE) to get permission to go on to the range. Imagine, if you will, a combat situation as you approach the target area, you climbed way up (UNINTELLIGIBLE) combat situation. (UNINTELLIGIBLE) corridors day-to-day, at a subsonic speed. These are not areas where we (UNINTELLIGIBLE) that type of training. Because, unlike these larger areas up here, (UNINTELLIGIBLE) to do that type of training. (UNINTELLIGIBLE) to the target areas and then go back (UNINTELLIGIBLE).

(UNINTELLIGIBLE) permanent MOAs. These areas are very, very small and they're very close to the Eielson Air Force Base area. The first one is Falcon MOA (UNINTELLIGIBLE) Clear Creek MOA right here. The Falcon MOA provides

connection between (UNINTELLIGIBLE) Yukon 1, that permanent airspace that's (UNINTELLIGIBLE) today, aircraft can now come through that airspace, through Falcon, (UNINTELLIGIBLE). Why would we want to be able to have aircraft reach the base, military operating base. Is that when we train our pilots for exercises (UNINTELLIGIBLE) we also have to train all of our maintenance people, our medical people, as well as our civil engineers. They have certain acts they have to (UNINTELLIGIBLE) at the airfield wherever (UNINTELLIGIBLE). This gives us the mechanism (UNINTELLIGIBLE) we don't need to do this training everyday, (UNINTELLIGIBLE) every so often (UNINTELLIGIBLE).

Clear Creek MOA provides an avenue to reach the (UNINTELLIGIBLE) Range which is one of those three bombing ranges (UNINTELLIGIBLE) in the state. At the present time, there is no access to (UNINTELLIGIBLE) bombing range day-to-day. (UNINTELLIGIBLE) that range also.

Authorized supersonic operations (UNINTELLIGIBLE) MOAs. The Air Force has supersonic operations at the present time in Stony, Susitna MOA, and in Yukon 2. This proposal looked at (UNINTELLIGIBLE) supersonic (UNINTELLIGIBLE) MOA, (UNINTELLIGIBLE) Yukon 1, Yukon 3, 4 and 5. At present, all supersonic operations must be done at or above 5,000 feet above ground level. We talked about it in Circle Hot Springs and Central area (UNINTELLIGIBLE) about 35,000 feet (UNINTELLIGIBLE). These areas are (UNINTELLIGIBLE) at or above 5,000 feet. You all, we talked a little bit already tonight about supersonic (UNINTELLIGIBLE) and we (UNINTELLIGIBLE). Why do we do it? What altitude (UNINTELLIGIBLE) do it at. The reason why we do it is, (UNINTELLIGIBLE) offensive (UNINTELLIGIBLE), again, (UNINTELLIGIBLE) don't actually fire, but we would like (UNINTELLIGIBLE). (UNINTELLIGIBLE) another aircraft (UNINTELLIGIBLE). If I can get higher and fast and my missile can travel further, I have better position on (UNINTELLIGIBLE). So the idea is to (UNINTELLIGIBLE) very high. So we don't like to do it low because that shortens our (UNINTELLIGIBLE) on how far we can travel. Okay. (UNINTELLIGIBLE). We also like to be fast so that if the situation (UNINTELLIGIBLE) aircraft (UNINTELLIGIBLE). So the supersonic operation (UNINTELLIGIBLE) United States Air Force, but by every

(UNINTELLIGIBLE) air forces in the world. We have to train (UNINTELLIGIBLE) advantage as well as (UNINTELLIGIBLE). (UNINTELLIGIBLE). This is training (UNINTELLIGIBLE) world for over a decade and essentially (UNINTELLIGIBLE) training that the Air Force does with the Army, the Navy, the Marines and (UNINTELLIGIBLE) combined training (UNINTELLIGIBLE) do with our Allies, like the British Air Force. You're probably aware, coming to Alaska each summer and does training, as well as the Canadians who come (UNINTELLIGIBLE) some of our exercises. And what does it do for us? What it allows . . . just like I talked about (UNINTELLIGIBLE) training, (UNINTELLIGIBLE) only to get together in peacetime and learn how you communicate, how you (UNINTELLIGIBLE) what are their strengths and weaknesses, their aircraft. How do they operate? We want to learn that in peacetime so that if you would have to operate on the same team, you would know what to expect. For example, in Desert Storm, we had (UNINTELLIGIBLE) Air Force (UNINTELLIGIBLE). Again, a lot of Air Forces came together and they were able to operate objectively. Now a lot of that was because (UNINTELLIGIBLE). We believe that is the wave of the future and we want to do that type of training and this is not the only place in the world (UNINTELLIGIBLE). (UNINTELLIGIBLE) very important to our (UNINTELLIGIBLE).

The last (UNINTELLIGIBLE) already authorized (UNINTELLIGIBLE). What we're looking at here is (UNINTELLIGIBLE) upwards of four exercises in a year. This year we did three. Next year (UNINTELLIGIBLE). So what this allows us is to be able to (UNINTELLIGIBLE) schedule, (UNINTELLIGIBLE).

The next thing I'll talk about . . . that was the proposed action. What I'll talk about now is some of the things that came from the public, as well as the agency (UNINTELLIGIBLE). (UNINTELLIGIBLE) alternatives and we received a number of alternatives that we put up against the criteria. I tried to give you a little bit of criteria earlier in my briefing and I showed you where our bases were, where the bombing ranges were, how far we can travel, cause all those criteria give us kind of a spectrum of where are the places that we can fly to do our training based on the amount of fuel that we can carry. Those type of limitations. One of the alternatives that we put against that criteria was the elimination of Clear Creek MOA right here. We

looked at that because the Blair Lakes Range, one of those three bombing ranges, (UNINTELLIGIBLE) different (UNINTELLIGIBLE) other two ranges in Alaska. It's a beginners kind of range (UNINTELLIGIBLE) more of a race-track pattern. It's not critical that you enter that bombing range (UNINTELLIGIBLE) directions. Okay. So again, once you get to the race-track, (UNINTELLIGIBLE) how you got here, (UNINTELLIGIBLE). The other bombing ranges are tactical ranges. You want to have the aircraft coming from many different directions, (UNINTELLIGIBLE) other bombing ranges, because that's a real combat (UNINTELLIGIBLE). Coming the same way every day (UNINTELLIGIBLE) the idea is to practice (UNINTELLIGIBLE). But anyway, (UNINTELLIGIBLE) Clear Creek MOA (UNINTELLIGIBLE).

Another alternative was to look at Yukon 4 and 5. Eliminating (UNINTELLIGIBLE) MOA down here. The town of Tok is right here. You can see that it butts up (UNINTELLIGIBLE) southern border of Yukon (UNINTELLIGIBLE), the southeast border of Buffalo MOA and the eastern border of Fox MOA. This airspace will be a maneuvering airspace. Unlike those (UNINTELLIGIBLE) MOAs that I was talking about earlier (UNINTELLIGIBLE) airspace. So, aircraft would maneuver here. What does it end up with, that alternative (UNINTELLIGIBLE) we have this much new airspace. Tanana MOA, Clear Creek MOA (UNINTELLIGIBLE). We're also assessing this airspace, this supersonic operations (UNINTELLIGIBLE) maneuvering MOA. But also because (UNINTELLIGIBLE) substituting for airspace that was also being assessed (UNINTELLIGIBLE).

The scoping issues that were identified during the meetings we had last fall, comprised of all these areas listed here. The number one (UNINTELLIGIBLE) identified (UNINTELLIGIBLE) was airspace (UNINTELLIGIBLE). However, wildlife, recreation (UNINTELLIGIBLE).

COL. HASSAN:

Okay. Now, what I'd like to focus on is just what kind of impacts (UNINTELLIGIBLE). (UNINTELLIGIBLE) what all that stuff (UNINTELLIGIBLE).

There are some terms up here, accumulative impact, for example. What we looked at is, if you take any, like you reference the terms of a box. If you looked at a box of a MOA and inside of that MOA there are a lot of things that go on. So we did

not just look at one or two airplanes flying. We looked at every activity that goes on within that military flying . . . military operations areas. And that sum, of all of those affects, is one total affect and that total affect (UNINTELLIGIBLE). (UNINTELLIGIBLE) to just take one piece of information and say that's the impact. We added up everything that goes on and the total number of planes that we fly (UNINTELLIGIBLE) if there are any other activities (UNINTELLIGIBLE). So when you see the term accumulative impacts, it's the sum of everything that happens (UNINTELLIGIBLE).

Admittedly, one of the strongest methods we have is noise. That's the only one that has got a lot of scientific basis to it. That is, there are studies that exist, there are scientific models that exist in the academic community, for example, that says, you know, we have actually taken measurements, we know what the sonic booms sound like, we know what, you know, overflights of aircraft at so many distance, how fast they go, sound like. So for noise studies, the noise numbers that you get out of there is the most refined of the studies. What we have tried to do in developing methodologies, is to look at, in terms of wildlife and subsistence. We have funded a lot of studies to be done. But in the meantime, just like we're trying to respond to your concerns now, in putting an exclusion area around your particular living area for sonic booms, we also have responded to U.S. Fish & Wildlife, as I referenced earlier, for Peregrine falcons, for moose and sheep during their critical periods. But we continue to study any long-term affects that we're not aware of today and we are committed to continue studying those differences.

Now when you look at . . . you'll see these numbers, Level I, Level II, Level III. Level I impacts were deemed not . . . none or negligible impact. Level II impacts are those that are usually seasonal. For example, from about, in the State of Alaska, from about the first part of June till the middle of September or so, is peak time. Peak time for tourists, it's peak time for civil aviation, it's peak time for a lot of animal activity. So that's what we would call a seasonal impact. The same thing that may occur for a recreational use down on the Forty Mile area in the middle of the summer would not be the same impact in February. So a Level II is like we found impacts that were mostly seasonal. Level III is significant impacts that could change

the habits or the affects. The long-term affects could have a real detrimental affect on animals or people or whatever. So you'll see Level II and Level III impacts have been identified.

Of the areas that Maj. Siter first showed you, we found Level II or Level III impacts all in these areas. So what I'd like to do is have Mr. Ham show you one or two of these things and we'll, obviously, answer any questions you might have (UNINTELLIGIBLE) how that works out.

BILL HAM:

First off, it's a pretty awesome document when you look at it and it could be intimidating and it's all summarized in here as best we could get it down to 20 or 30 pages. And for your information, if there's something you don't understand or you have questions about, we referenced the paragraphs in the main document so that you could go to get expanded information. In Vol. II of the document, in the, is what's called Chapter 4 or the Environmental Consequences, we found that of those four areas that Col. Siter talked to you about the three that primarily were displayed, Level II or Level III impacts, in this particular region along the Steese corridor here, Central, Circle Hot Springs and Circle, were near the wildlife, subsistence and recreation. Go to what I got here first.

Starting off in the recreation area . . . is that pretty well focused for everybody. We identified seasonal nature potential for Level II impacts along the Steese National Conservation area, Birch Creek area, portions all in this area here, generally along the Steese corridor here and a little bit south. Also, the eastern portions of the Yukon Charlie area is extended to this Yukon 2 MOA. These are generally right along the line of where you all live here and a little bit south. Also further out the Yukon 3 area, we identified a potential for Level III impacts. Significant disturbance to that recreation activity on the Yukon Charlie area east of here and southeast of here. And also a potential on the Forty Mile area down near Eagle.

In the subsistence area, two main subsistence communities around here, up in Central and over in Circle in the far area, far end of the Steese Highway, through the analysis and due to the potential of noise impact, especially those noise impacts in that subsistence season, in the August/September time-frame when you're out doing

the big large animal hunt, and because a large portion of the subsistence area, potentially for Circle, is outside of any protected airspace, or an airspace where there were higher floors as there are along portions of the Steese corridor here, it was assessed for a Level II. A potential disturbance to that harvest activity out in the Circle area down at the end of the highway. And one more here I'd like to show you on terms of wildlife impact. There were two main species . . . three species that had a potential for Level III impacts. The caribou, which are not really impacted in this area here. The herd that was (UNINTELLIGIBLE) identified as being in danger was the Della herd down near the connecting MOAs, down there along the Alaska Highway. The Trumpeter swans which are, again, down in that area further south, down near Nulchana and over in the Susitna area. But the third species of concern by our biologist was the Dall sheep. (UNINTELLIGIBLE) two general areas of the Dall sheep. One south of Eielson there, right north of the Alaska Range. But the second area was near the Tanana Hills area. The Dall sheep, generally in the four corners area of these MOAs, the potential for Level III impact during those early spring and early summer lambing (UNINTELLIGIBLE). And that's generally the time that that animal is the most stressed and (UNINTELLIGIBLE) relatively low counts on this particular herd in these areas. This is a whole winter ranging area. The lambing area would actually be (UNINTELLIGIBLE) smaller (UNINTELLIGIBLE) and it would be identified from year-to-year, in contact with ADF&G and other communities. And that's how they would pinpoint that area and then identify any particular restrictions on that area. Those were the three main areas where impact would be associated with (UNINTELLIGIBLE) talk about some more later, afterwards (UNINTELLIGIBLE) picture of the whole area.

COL. HASSAN:

Well, now that we've identified impacts, there's an approach that we can take, but it needs cooperation and consultation with you and federal agencies (UNINTELLIGIBLE) other federal agencies to put it into effect and it's called mitigation. And it's, frankly, to seek a balance. And that is, again, we've had some conversation that said we all understand that we need to train, the question is, where there are known impacts, we've got to try to avoid or mitigate those impacts. And

that's, we have attempted to do that today. Again, hopefully, the change that has not had a long time to take affect, that immediately, you know, impacts you, hopefully, that will prove to be what you are looking for. But we are ready, willing and able to work those kinds of issues on a pro-active basis based on your consultation. We have changed how we fly in other areas where folks similar to yourself have had particular concern about our flying activities. As I referenced, we have already changed seasonally. We will not fly any exercises the first two weeks in September. We will not fly over areas that are undergoing particularly stressful times for the sheep and the caribou. And we continue to try to expand that list, but we can only do that with your help.

And we use this as a . . . one other thing that I would like to clarify. We have analyzed, in this document, what the affect would be if we flew at 100 feet. We do not fly at 100 feet. We fly, the F-15s and F-16s, the minimum altitude that you're allowed to fly is 500 feet. However, we do not fly a large percentage of our training at that altitude. Roughly less than 20% of the flying training needs to be done that low. Most of it is done much higher. But just to show you, for example, if the pilot is cleared to fly at 500 feet, and he's transversing across here, from your right to left, when he came to, what we would call a bird nesting site, he would have to climb to over 2,000 feet to get around that. That's an example of what I talked about.

And then, finally, we are committed, and again, I wish we had had more time to see if there was any long-term affect that you were satisfied with the change we made, but it's only based on (UNINTELLIGIBLE).

So with that, I'll turn this back over to Col. McShane. (UNINTELLIGIBLE) answer questions (UNINTELLIGIBLE).

COL. MCSHANE:

(UNINTELLIGIBLE) public comments (UNINTELLIGIBLE)

??:

Yup.

COL. MCSHANE:

Okay. (UNINTELLIGIBLE)

QUESTION #1:

Alright. I'm not a permanent resident of the area. I come up here in the

summers and I do geological work around the area. Pretty much of a large number of miles around the area. And I work outside most of the time. Ninety-nine percent of the time is all outdoor work and my concern is, although I'm concerned of the environmental impacts, I, myself, and for any change that will protect the wildlife. Protect anything that may be hurt by the MOAs. But what my problem is, is as I'm in the hills and it's very quiet out there, you don't hear anything but maybe the wind. And for an airplane to, I am never sure of the altitude and sometimes I never even see the plane, never hear it when it's coming, but all I hear is the supersonic boom and numerous times I've not been sure of whether it's a gunshot or not and from that standpoint, I wouldn't necessarily call it assault, but I would, I felt like it. I feel, to the point where, if it was a gunshot, I might not know it. If it's a sonic boom, which they usually are, if I say to myself, "Well, that's a sonic boom and not a gunshot." Then I might put myself at risk by not preparing for that or for protecting myself in the future. I usually carry a gun or bear spray. You know, that's for animals, not necessarily people. That is my problem. After that, I've had it only a couple times where I really seriously was not sure whether it was a gunshot or a sonic boom. I don't know how low they were flying, but it felt like it was in my ear and it was coming from a shrub or a bush 100 feet away. So that leaves me shaken and unsure of what my safety is. And I am, sometimes, miles away from help and whatever and I feel like I just need to pack up my things and go home. Usually I do not work during hunting season. But this is an area of subsistence living and I'm never sure of bird hunters or even recreational shooting in the area. So I think what I would, as an employee in the area, would like some pre-warning. Possibly designating times when there are going to be supersonic operations in the area and either have that information open to me to go to Central or to find out from the airports, those who are managing airports and have that information or it can be called by Fairbanks or Eielson or whomever's in charge would say for the next week we're gonna be doing supersonic reports, er, supersonic operations. And post that a week or so advance around town so that people can be prepared for it. That is my only problem. Is the noise. And I do enjoy watching the operations sometime when it's clear. And that is I would like the personnel of the military to be trained in any way that is necessary for the military at the time. But just

warning, I think. Being out there and working, I don't live here permanently, so I'm not speaking for other people. But I feel as if I have been assaulted. Whether or not it's direct, whether or not it's unintentional, I feel as if my body has been violated in some way. And I still feel that way, sometimes days after until I think "Well, maybe that needs to be done. Maybe my safety is put second to the safety of the mission." But, you know, I'm not sure what the line is. I think it can be done other ways and if I was warned, I'd say "Well, it's a sonic boom and not a gun." If a warning process was available.

Thank you.

COL. MCSHANE;

Thank you.

(UNINTELLIGIBLE)

QUESTION #2:

My name is Edwin Gelvin. I live in Central. I've lived in this area for forty years and I've flown in the area for nearly 30 years. And I've held a professional (UNINTELLIGIBLE) for nearly 25 years. My main concern (UNINTELLIGIBLE) is the proposed supersonic flight over our (UNINTELLIGIBLE) and homes, which I understand (UNINTELLIGIBLE). Also, the flights over the whole area in relation to game birds and everything out there, that I don't think the just short period will do much good. However, it would have to do a lot of good from just before the first birds, game start producing in the spring. (UNINTELLIGIBLE) very mature in the fall to have a more long-term effect. That's just my opinion. (UNINTELLIGIBLE) not in relation to the sonic booms (UNINTELLIGIBLE).

Can we ask questions?

Am I to assume that all supersonic flights over this . . . these MOAs is down to 5,000 feet?

COL. HASSAN:

(UNINTELLIGIBLE) most level that we do, any pilot (UNINTELLIGIBLE) 35,000 feet is high enough that anyone country a pilot could (UNINTELLIGIBLE) fly supersonic. So it is fairly reasonable to hope that over this general area, that we will not impact it by sonic booms. But the other areas that we have . . . we either currently

have authorization to do the supersonic flying or would request it, it would be above 5,000 feet. Again, one other clarification Maj. Siter said, it really doesn't do us a lot of good, as pilots, to train to do supersonic flying at 5,000 feet. The reason to do it is to get high (UNINTELLIGIBLE). The answer your question, is only above 5,000 feet.

QUESTION #3:

What is the difference between 5,000 and 35,000 (UNINTELLIGIBLE)

COL. HASSAN:

It's a lot of difference. First of all, it's just the distance that it has to travel. The longer that the wave, which is what it is, the sound wave travels, it dissipates out. But I will also quickly tell you that it really is also dependent upon the weather. Atmospheric conditions. So that it is not unreasonable, even though it might not make a lot of common sense, that a sonic boom, say, on one day that happens at 10,000 feet and another sonic boom that happens at 20,000 feet the next day, that second one may sound louder to you than the first one. But above 30,000, 30 to 35,000, it is rare to really be . . . to have some noticeable Effect. You might hear a pop, but you won't feel the kinds of things you have described above 35,000 feet. We need to know if you do.

QUESTION #4:

Another concern of mine is why (UNINTELLIGIBLE). Do these guys stay on (UNINTELLIGIBLE) they know where I'm at (UNINTELLIGIBLE).

MAJ. SITER:

Yes sir. (UNINTELLIGIBLE) as we have improved our flying (UNINTELLIGIBLE) military, part of that is, our training so that we can prepare our combat pilots go to war (UNINTELLIGIBLE) what we're doing now (UNINTELLIGIBLE) radar to better train our pilots and better train our controllers. Now that the Air Force has a better view radar-wise at low altitudes (UNINTELLIGIBLE) and what it's called is Special Use Airspace Information Service. What it does, it takes a radar picture and radio coverage and sends it to Eielson Range Control. Now the victor radio 125.3, if you're transitting through, (UNINTELLIGIBLE) down south of Yukon River, the purple area up

(UNINTELLIGIBLE) Fairbanks, you can call this service up, on 125.3, getting Eielson Range Control (UNINTELLIGIBLE) okay. (UNINTELLIGIBLE) what they'll do is, they will tell you those aircraft (UNINTELLIGIBLE). They're not going to tell you what to do (UNINTELLIGIBLE). Okay. All they're (UNINTELLIGIBLE) to do is give you information (UNINTELLIGIBLE) you can make your own decision (UNINTELLIGIBLE). Okay. (UNINTELLIGIBLE) military pilots are also given information on where you are. Realize that a lot of our modern aircraft has on-board radar. (UNINTELLIGIBLE). But realize, we can only look in certain directions (UNINTELLIGIBLE). Okay. We try to integrate all that together so that we can have as much awareness of where you are (UNINTELLIGIBLE) aircraft moved out of the area, or it actually stops the scenario (UNINTELLIGIBLE). These are giving us "eyes" to help us look behind and look to the side. (UNINTELLIGIBLE). We did a ninety-day test, it started in June (UNINTELLIGIBLE) to all the outlying airports (UNINTELLIGIBLE) and even on RATNET back in the middle of July we talked about this service (UNINTELLIGIBLE) I put these out tonight (UNINTELLIGIBLE) (UNINTELLIGIBLE) the pilot was transitioning along the western portion of Yukon 2, Yukon 1 to the south (UNINTELLIGIBLE) right in the middle of a Cope Thunder Exercise (UNINTELLIGIBLE) aircraft (UNINTELLIGIBLE) combat, is protect each other, (UNINTELLIGIBLE). He calls up the Eielson Range Control and he says, "Hey, I'm here." (UNINTELLIGIBLE). "I'm here. What's going on?" He finally called because the Eielson Range Control guys says "Hey, one of the Cope Thunder packages is headed your direction off your left wing (UNINTELLIGIBLE)" (UNINTELLIGIBLE). (UNINTELLIGIBLE) and what the pilot did is momentarily altered his path and actually got a visual (UNINTELLIGIBLE) on the (UNINTELLIGIBLE). He watched it go by (UNINTELLIGIBLE) and then (UNINTELLIGIBLE) That's why we strongly encourage you if you're gonna be out there flying in the MOAs (UNINTELLIGIBLE), when will it be activated. (UNINTELLIGIBLE) operation (UNINTELLIGIBLE) FAA (UNINTELLIGIBLE) either in the MOAs or in the three bombing ranges, Eielson Range Control (UNINTELLIGIBLE). As you use the service, if you think the service can be improved (UNINTELLIGIBLE). The bottom line is we're essentially changing

(UNINTELLIGIBLE) temporary (UNINTELLIGIBLE)

QUESTION #5:

My concern is, (UNINTELLIGIBLE) is if I'm going out here to (UNINTELLIGIBLE), and I don't have a radio, can they see me? (UNINTELLIGIBLE) I don't go below 500 feet..

MAJ. SITER:

We have onboard radar (UNINTELLIGIBLE) We can see your aircraft with the on-board radar. Realize (UNINTELLIGIBLE) radar and radio control coverage would depend upon where you're located. Our coverage extends as far as the Yukon bombing range down south to the Donnelly Dome area (UNINTELLIGIBLE) radar (UNINTELLIGIBLE) Circle Hot Springs area and you go below 2,000 feet, (UNINTELLIGIBLE) you start getting down (UNINTELLIGIBLE) radar (UNINTELLIGIBLE). (UNINTELLIGIBLE) I would encourage you--not to get up too high--but get up a little bit higher and you'll be seen by the system (UNINTELLIGIBLE) military pilots (UNINTELLIGIBLE). You won't know that without a radio but at least... Be fully aware that you are out (UNINTELLIGIBLE) remember that I can use my radar to see you, I will. Also, the F-15s have the air-to-air (UNINTELLIGIBLE) squawk at 1200; I recognize that some people don't have the transponders. We'll see all those transponders. So if you're out there flying, (UNINTELLIGIBLE) squawking helps someone else see you (UNINTELLIGIBLE).

QUESTION #6:

(UNINTELLIGIBLE)

MAJ. SITER:

I have a map that I can show you (UNINTELLIGIBLE).

COL. HASSAN:

(UNINTELLIGIBLE) this is just another attempt to try... it helps us both. Nobody wants to.... We don't want to run into you. You don't want to run into us. (UNINTELLIGIBLE).

QUESTION #7:

Well, I'm not gonna make (UNINTELLIGIBLE). (UNINTELLIGIBLE)

MAJ. SITER:

Yeah. Radars have been in use since the Second World War. Radars are not dangerous, but lasers can be if they're at the right intensity and (UNINTELLIGIBLE) ... What we have in our LANTIRN aircraft, (UNINTELLIGIBLE) low altitude night (UNINTELLIGIBLE) use these lasers for identifying targets. Okay. We have several settings on the aircraft, some are called training mode settings, some are combat settings. Obviously the combat settings, they have more intensity at greater range and they have more precision (UNINTELLIGIBLE); whereas the training mode, pulled down the intensity and the power, they're more eye-safe, etc. When we're on the ranges, that's the only place we're allowed to do combat setting. (UNINTELLIGIBLE) bombing ranges. Aircraft and people are not allowed on the range. That's why they're called "restricted areas" as opposed to a "military operating area." A restricted area, you're not allowed to go on the property or even fly an aircraft across it because (UNINTELLIGIBLE) certainly wouldn't want to hurt anyone (UNINTELLIGIBLE). Same thing with the lasers. We use lasers on the ranges because we have isolated only military aircraft for use in that area. (UNINTELLIGIBLE) public. We want to make you aware of how (UNINTELLIGIBLE)

QUESTION #8:

(UNINTELLIGIBLE)

COL. HASSAN:

We've got (UNINTELLIGIBLE). The problem really comes down to (UNINTELLIGIBLE) aircraft (UNINTELLIGIBLE). (UNINTELLIGIBLE) areas that (UNINTELLIGIBLE) established around (UNINTELLIGIBLE).

QUESTION #9:

I understand that. (UNINTELLIGIBLE)

COL. HASSAN:

(UNINTELLIGIBLE) major flying exercises (UNINTELLIGIBLE).

QUESTION #10:

(UNINTELLIGIBLE)

COL. HASSAN:

Well, the problem was, that we already had in place this airspace in Alaska and when we were forced out of the Philippines, there was no other place in any foreign country (UNINTELLIGIBLE) Pacific Air Force (UNINTELLIGIBLE) airspace exercise it's based in Hawaii. And we're the only other bases that has (UNINTELLIGIBLE). So, it was brought here because these airspaces were the closest to Pacific Theater. We looked at other alternatives. There were other alternatives, for example, at the ranges... one of our big ones is in Las Vegas, Nevada. (UNINTELLIGIBLE) and frankly, there is no time available on that range (UNINTELLIGIBLE). As it is now, if you're a pilot, and you fly for example, say, in Korea, or Japan, or Alaska, you actually only get a chance to fly in one of these exercises, you know, once every (UNINTELLIGIBLE). I understand your concern, but we've got only so much airspace, and we've got so many pilots. We can't do it all in one place. (UNINTELLIGIBLE) identify several different places that we try to spread it out (UNINTELLIGIBLE) time available to go out (UNINTELLIGIBLE).

QUESTION #11:

(UNINTELLIGIBLE)

COL. HASSAN:

(UNINTELLIGIBLE) I apologize ... (UNINTELLIGIBLE). I apologize (UNINTELLIGIBLE) but our (UNINTELLIGIBLE) get some balance. (UNINTELLIGIBLE) but we've got to airspace available (UNINTELLIGIBLE)

QUESTION #12:

I don't know how in the world you can do that with all the airplanes (UNINTELLIGIBLE).

COL. HASSAN:

All I can say is that we (UNINTELLIGIBLE) try and make it safer. (UNINTELLIGIBLE) we're not asking anybody else (UNINTELLIGIBLE). (UNINTELLIGIBLE) the fact that, you know, Alaska has the highest, per capita, air traffic (UNINTELLIGIBLE) we don't want to have that problem. (UNINTELLIGIBLE) Maj. Siter mentioned (UNINTELLIGIBLE) over one million (UNINTELLIGIBLE).

QUESTION #13:

(UNINTELLIGIBLE). Work it out.

COL. HASSAN:

(UNINTELLIGIBLE)

QUESTION #14:

(UNINTELLIGIBLE). You know we (UNINTELLIGIBLE).

COL. HASSAN:

We have airspace (UNINTELLIGIBLE). (UNINTELLIGIBLE) take place (UNINTELLIGIBLE) what's going on, why we want to change, how we can do it, and, oh by the way, (UNINTELLIGIBLE).

QUESTION #15:

(UNINTELLIGIBLE) Nobody ever come around here and (UNINTELLIGIBLE).

COL. HASSAN:

I think it's (UNINTELLIGIBLE) we didn't have a category (UNINTELLIGIBLE). (UNINTELLIGIBLE) recreation (UNINTELLIGIBLE). So each of those categories you'll see references to the effects on (UNINTELLIGIBLE). Like I said, the really hard science (UNINTELLIGIBLE).

QUESTION #16:

It's not (UNINTELLIGIBLE), I mean, (UNINTELLIGIBLE) when you talk about recreation (UNINTELLIGIBLE). (UNINTELLIGIBLE) don't have to be out here (UNINTELLIGIBLE) like that. (UNINTELLIGIBLE)

ROBERT CASEY:

A couple of things that went through my mind as I was listening to Virginia here. First of all, my name is Robert Casey. I'm a resident of this area. I've been in and out of this area since (UNINTELLIGIBLE) and it's a great place to live and it's been a great place to live. But I guess when it came to the sonic booms, I have to go back and say one of the words that I hear quite often in this environmental age and that's "NIMBY", not in my back yard. And I guess my primary complaint is sonic booms, because sonic booms make my house (UNINTELLIGIBLE). It makes this hotel (UNINTELLIGIBLE). I've been in it. I can recall a (UNINTELLIGIBLE) a

lady sitting (UNINTELLIGIBLE) this summer. "What was that?" The woman was frightened. And I said, "That was a sonic boom." And she said, "You're gonna have to get rid of that." (UNINTELLIGIBLE) tell ya, I need to get rid of that.

I want to ask a question before we go very far, Has the military done a study on the effects of sonic booms on various types to a human being, a child, (UNINTELLIGIBLE). (UNINTELLIGIBLE) I'm talking about the (UNINTELLIGIBLE). Can you answer me if there has been a study of the effects of sonic booms on (UNINTELLIGIBLE)

Bill Ham:

Sir, the only one I know of is an old study that was done just looking at pure physical effects--on how loud the sonic boom (UNINTELLIGIBLE) there're no studies that I know of that talk about your heart rate going up or those kinds of things, none that we know of.

Robert Casey:

I believe the Captain will recall one of my phone conversations was (UNINTELLIGIBLE) three of us went down the street out here and my knees went out from underneath (UNINTELLIGIBLE). It just so happened one day (UNINTELLIGIBLE). (UNINTELLIGIBLE) Let me tell you, (UNINTELLIGIBLE) sonic boom. We're not talking a single sonic boom, we're talking multiple. The greatest multiple I've heard is four. I've never heard four before in years past. I've heard a sonic boom on occasion, but hearing as many as four multiple within a fraction of a second. Not in one second, milliseconds apart, hitting the ground (UNINTELLIGIBLE) house, sitting at the table. Now, I have a fairly well-constructed house. It's built of logs, it has a standard roof (UNINTELLIGIBLE), it's got a standard pitch on it and it has thermo pane windows in it, it has a metal door and it sits about three feet above the ground. A lot of our houses in this area are built that way because we have radon gas and so we need gas (UNINTELLIGIBLE) it may be a problem some of you haven't run into. But we need air under the house. Consequently, something hit my house. My house moved. (UNINTELLIGIBLE). (UNINTELLIGIBLE) sitting there, at the table and he looked down and he said, I just (UNINTELLIGIBLE) and that's a, that's a sonic boom. It's just a sound.

(UNINTELLIGIBLE). I've had people tell me that they had broken windows. (UNINTELLIGIBLE) I really have a problem with that. Two years ago (UNINTELLIGIBLE) two young ladies, grandchildren, (UNINTELLIGIBLE) came up and visit me in the summer, two or three weeks. They informed me that they were not going to come and visit grandfather any longer because of the sonic booms. They don't like the sonic booms. The children were frightened to the point that they have not visited for two years. And the reason is sonic booms (UNINTELLIGIBLE). My dog doesn't like the sonic booms either. My dog either runs off into the brush if she's outdoors, and she's very well penned up; and/or she ends up under the bed. Recently, I find that she's running under the bed before we even hear the airplane coming (UNINTELLIGIBLE) she knows the sound of the aircraft. She now goes under the bed prior to the (UNINTELLIGIBLE). That may not be a (UNINTELLIGIBLE) cause for you, but it's a big concern to us who live on the ground; and I can only say, I'm being very selfish, not over my house, but I also got to say those people in Circle got to feel the same thing. And those people in Central have to feel the same way. So I just (UNINTELLIGIBLE) the feeling (UNINTELLIGIBLE). Concerning the 35,000 supersonic (UNINTELLIGIBLE) 10-mile area that has now been changed. I thank you for the change. I wish we could have discussed this sooner because I would have made it a little bit larger and the reason is, (UNINTELLIGIBLE) I think the aircraft is probably (UNINTELLIGIBLE) and I'd like to see the center of the 10-mile circle and I'd like to see three of them. I'd like to see a 10-mile circle around Central. I'd like to see a 10-mile circle around Circle Springs and (UNINTELLIGIBLE) Central to Circle (UNINTELLIGIBLE) 25 air miles to Circle. But I think the 10-mile circle or if it ends up being (UNINTELLIGIBLE). But probably of most concern over these areas of that space from 10,000 to the ground is air traffic; we get more planes on an airfield, Circle Springs in the summertime, than you've got flying (UNINTELLIGIBLE). I've seen 15 to 20 aircraft out on this field in one day. This is a traffic area (UNINTELLIGIBLE). So my concern is the 10,000 feet to the ground and I would ask that the aircraft be restricted to 10,000 feet. Military aircraft (UNINTELLIGIBLE), whatever it ends up being, under 10,000 feet. And I feel strongly enough that I would personally write a letter to the FAA and make that same identical statement. I strongly

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OTH-014 disagree that Cope Thunder operations under 10,000 (UNINTELLIGIBLE) in the public air (UNINTELLIGIBLE). And the reason I so strongly disagree is because you recognized wildlife out there and limit the elevation or height of the aircraft, but you don't recognize the human (UNINTELLIGIBLE) to the same extent environmental impact (UNINTELLIGIBLE) but it doesn't include my dog and it doesn't include me and my kids (UNINTELLIGIBLE). So I got (UNINTELLIGIBLE) and also, (UNINTELLIGIBLE) comes out of the aircraft. I'd like to ask a question (UNINTELLIGIBLE) (UNINTELLIGIBLE) still have (UNINTELLIGIBLE) drop to the ground. Do they ever reach the ground or do they burn out before they (UNINTELLIGIBLE).

MAJ. SITER:

Yeah. The flames (UNINTELLIGIBLE) they burn out (UNINTELLIGIBLE) more than doubled (UNINTELLIGIBLE) minimum altitude (UNINTELLIGIBLE). Additionally, we have during the summertime period, we had (UNINTELLIGIBLE) fire hazards. There are certain times of the year we are not allowed (UNINTELLIGIBLE). (UNINTELLIGIBLE) we want to make sure that (UNINTELLIGIBLE)

QUESTION #17:

Now I have a proposal that I would like to (UNINTELLIGIBLE) you have English people that join you in Cope Thunder. I'm sure you have Canadians to join your Cope Thunder (UNINTELLIGIBLE) and (UNINTELLIGIBLE) not in my backyard. Put some in theirs. They have identically the same country on the other side and it's time that we work as military to reach for a joint agreement to spend some time on the other side (UNINTELLIGIBLE)

MAJ. SITER:

(UNINTELLIGIBLE) that's the way our Air Force (UNINTELLIGIBLE) Allies (UNINTELLIGIBLE) work together.

QUESTION #18:

They have border joining Alaska (UNINTELLIGIBLE) They have a limited population (UNINTELLIGIBLE) probably less population than we have in the Central/Circle.... The Central/Circle area (UNINTELLIGIBLE).

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I believe that's all I have (UNINTELLIGIBLE). I thank you. And would you please consider the changes that I have requested (UNINTELLIGIBLE)

??:

(UNINTELLIGIBLE)

QUESTION #12:

(UNINTELLIGIBLE) this summer I was flying (UNINTELLIGIBLE) and we had four jets come over (UNINTELLIGIBLE) when you're eating, you know, around 6:00 or 7:00 and you guys come over (UNINTELLIGIBLE) and we have a trailer that's up on blocks, and the whole trailer shakes by the sonic booms. You look out and your well below ? Dome again, and there's about 2300 feet (UNINTELLIGIBLE) and they're below that, you know. They're real low. (UNINTELLIGIBLE) it can hurt your ears (UNINTELLIGIBLE) and it does affect you. When you're out hunting and you hear the sonic booms and you're watching an animal, the animal lifts his head and goes another direction (UNINTELLIGIBLE) I've seen jets during hunting season (UNINTELLIGIBLE). September 3, (UNINTELLIGIBLE) we had jets go over and come down about 4,000 (UNINTELLIGIBLE) 35,000 (UNINTELLIGIBLE)

??:

Yeah. Supersonic. (UNINTELLIGIBLE) Col. Hassan stated the reason why (UNINTELLIGIBLE) also (UNINTELLIGIBLE) we're talking about (UNINTELLIGIBLE) any airspace (UNINTELLIGIBLE) what we were talking about (UNINTELLIGIBLE) exercises (UNINTELLIGIBLE) as well as (UNINTELLIGIBLE)

QUESTION #20:

(UNINTELLIGIBLE) exercise a regular flight by planes. If you have three or four planes in the same area, you know, that's doing their normal day flying and they go supersonic and that scares the animal away from a person that's out hunting (UNINTELLIGIBLE), what does that do. (UNINTELLIGIBLE) if they don't get any moose that year (UNINTELLIGIBLE) they have to go buy meat (UNINTELLIGIBLE) has an impact on everybody here (UNINTELLIGIBLE)

??:

(UNINTELLIGIBLE)

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SUSAN:

My name is Susan (UNINTELLIGIBLE). I'm the owner/operator of Circle Hot Springs Lodge. I've done a lot of testifying in my life and so I kinda sat back and (UNINTELLIGIBLE), but what I'm hearing, I kinda like what I'm hearing on both sides. I think that you people that came up here should be applauded for trying to find answers to the problems instead of turning your backs (UNINTELLIGIBLE) a lot of (UNINTELLIGIBLE) reaction in the past, so consequently I think this is probably one reason why the crowd is small tonight . . . one of the hearings that we had up here and it was regarding our livelihood in mining, at that time we were able to get everybody, almost 123 people (UNINTELLIGIBLE). We gave testimony. It was very good. In fact, most of it was based on fact rather than emotion (UNINTELLIGIBLE) before the judge (UNINTELLIGIBLE). It's probably the reason why a lot of people (UNINTELLIGIBLE) here tonight because they just don't believe in the system or the process any longer. When I hear Mr. Casey speak, I know what he's saying. It's a terrifying thing if you don't understand what's going on with the loud booms. A group of you were here several weeks ago and explained to me very nicely that you had imposed a rule and you were changing things and you were going up higher. And to me that's an indication of going forward in the process. That's a long way from when you--Cope Thunder first came here and when I made my first phone call I was informed that nobody lived in this area. We've come a long way from that time (UNINTELLIGIBLE). So, as I said, I applaud everybody (UNINTELLIGIBLE), you know, the people taking the time to come and testify (UNINTELLIGIBLE) and they do believe in (UNINTELLIGIBLE) sometimes (UNINTELLIGIBLE) and you people have done a, I think, a very good job (UNINTELLIGIBLE). So I just hope everything goes forward (UNINTELLIGIBLE). Thank you.

??:

(UNINTELLIGIBLE)

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CERTIFICATION PAGE

I, Diane A. Beaulieu, do certify that this transcript is an accurate record of the proceedings as recorded

Dated: 11/7/94

Subscribed and sworn to before me this 7th day of November, 1994.

Sandra M. Davis
Notary Public
My Commission Expires: 4-1-97

Diane A. Beaulieu

Addendum:

The tape and transcript of the Circle Hot Springs MOA DEIS hearing were reviewed beginning with Question #1 and continuing through the end of the hearing. Corrections were made accordingly to the electronic (disk) and hard copy versions.

Karen McKibbin
Spectrum Sciences and Software, Inc.
November 22, 1994

ALASKA MILITARY OPERATIONS AREAS

PUBLIC HEARING

FORT YUKON, ALASKA

OCTOBER 3, 1994

19:16 - Col. Jim Heupel:

Good evening. Thank you for coming tonight. This is a hearing on the Draft Environmental Impact Statement for the Alaskan Military Operations Areas. I'm Col. Jim Heupel and I'm going to be the presiding officer for this public hearing. I'm a trial judge for the Air Force. I'm assigned down in the Lower 48 states. Let me introduce to you the members of the briefing team. Col. Rich Hassan is the Commander of the 611th Air Support Group out of Elmendorf Air Force Base in Anchorage and he'll talk to you, providing you an overview of the Environmental Impact Statement process. Maj. Bob Siter is also stationed at Elmendorf Air Force Base. He's an F-15 pilot and he's the Chief of Fighter Operations at the 611th Air Operations Group. He will brief you on the proposals that have been studied, the issues that were raised at the earlier scoping meetings that were held early this year. Then Mr. Bill Ham in the back is a contractor. He's employed by Spectrum Sciences and Software. They're a contractor for the Air Force and he will be briefing you on environmental consequences, other proposed actions, and the alternatives from the studies that they have done.

As the presiding officer for this hearing, I'm not a legal advisor, I'm not an authority on this Environmental Impact Statement, I haven't had anything to do with this development. I'm here because in the Air Force we have judges conduct these hearings to make sure it's fair, orderly, and everybody gets a reasonable opportunity to speak.

As far as the process tonight, the Air Force has prepared this Draft Environmental Impact Statement in accordance with the National Environmental Policy Act and Air Force regulations that implement that Act. The purpose of this hearing is to summarize for you the results of this Draft Environmental Impact Statement and to get your comments on it. The hearing tonight will be in two parts; the first part will be

summarize for you the results of this Draft Environmental Impact Statement and to get your comments on it. The hearing tonight will be in two parts; the first part will be the briefing to you, explaining to you the Environmental Impact Analysis process. The second part of the hearing will be the public participation part where you can have an opportunity to comment on this Draft Environmental Impact Statement. And the whole purpose is to improve the whole process and to give you an input into the environmental decision making process. And we want to make sure that we get input from the local community because that means the decision makers can benefit from your knowledge of the local area and any adverse environmental effects that you think could happen from either the proposed action or the alternatives. Now, none of the panel members are gonna be the decision maker in this case. They're just here to try to provide you some information on it.

If you don't want to make an oral statement tonight, we mentioned before we got started that we'll see if we can do another hearing tomorrow or if it can't work tomorrow, then one of the other days that we'll be here in Fort Yukon. Tomorrow or Wednesday or Thursday. But you, as well as anybody else, can still provide written comment on this Draft Environmental Impact Statement and you've got up until the 30th of November. The Air Force needs to receive your comment by 30th of November, of this year, in order to take it into account and be able to include it in the final EIS. But people can comment tonight or if we have further hearings here, they can comment during those periods orally or they can send in written comment. And it's all of equal value, whether it's an oral comment or a written comment, it's going to help in the decision making process.

Let me introduce Col. Hassan.

19:20 - Col. Rich Hassan:

We started out about a year ago and brought to the public, we've spoken to 15 different locations throughout the state. Your immediate area here, we were at Fort Yukon and Venetie, Chalkyitsik and Arctic Village. We've been down in Circle Hot Springs, Eagle. Of course, Fairbanks. Tok. Out west we've been in Sleetmute, Lime Village, McGrath. And then further south: Talkeetna, Glennallen and Anchorage. We also spoke with many — we spoke to the Tanana Chiefs Conference. We've spoken

to lots of civil aviation groups. And the whole idea was to talk about the (UNINTELLIGIBLE) was to come forward, present a proposal, collect inputs and comments, concerns, issues from these groups and then go back and analyze what potential impacts or our proposal would have.

Now, the main question that you might have is why we're going through this. The first and most important reason why we're going through this is because the Air Force in Alaska, for many, many, years, was involved in the Cold War, and as such, they were worried about air threats coming into the United States. Since the end of the Cold War, the Air Force in Alaska has a mission to pick up and deploy to other places in the world. In order to train to do that, we need to change our air-to-air training to an air-to-ground training. Now there are three surface ranges, three bombing ranges, in the state. They're all located south, southeast of the Fairbanks area so that the majority of our training air-to-ground occurs down in this area. The second reason that we're doing this proposal is that we have a difference between chartered air space, which is what's in the green here, and uncharted air space, which is what's in the blue here. Now we use all of this air space today, but the blue air space is uncharted and the green is chartered. So what we're looking to do is, as we go through this assessment is to get this air space chartered on air space maps which will act as an additional advisory to civil aviators. And last but not least, as we've gone through this process one of the key elements has been that we have been very interested in studying any potential effects or impacts that we may have on wildlife, on subsistence, on recreation, and on air safety. And all of those areas have been studied in detail and we'll talk to you a little bit about what we found in each.

So with that, what I'd like to do is introduce Major Siter who will talk a little bit about the proposal itself and why we're focused on this area.

Barry Wallis:

Before you do it, may I ask you a question?

Col. Jim Heupel:

Could we go through that, because part of the difficulty is we need to make sure we've got you on the microphone and it's hard to get you from up there.

Berry Wallis

Oh, I speak loud enough.

Col. Jim Heupel:

Thank you sir.

19:24 - Maj. Bob Sifer:

Colonel Hassan talked about change. He talked about our mission changing from air-to-air, predominantly, to both air-to-air and air-to-ground. We'd still do both missions, but the focus is on air-to-ground. Our training program had to change so that we have ability to do this mission anywhere in the world and when we look at how to handle the change and training program, we have to look at our air space. We have some air space today that we use. What we need to do is restructure that air space so that we can better train.

We looked at change, we started with a couple of key assets. The first being the air bases. First air base down at Elmendorf in the Anchorage area here and then Eielson Air Force Base here in the Fairbanks area. These are our two main bases in Alaska. We've had them in place since the Second World War.

Col. Hassan alluded to the three, and only three, bombing ranges in Alaska and they're here in these red shaded areas. They're all centrally located in the southeast area of Fairbanks. Those ranges were created during the Second World War. Again, we don't have any anywhere else in the state.

Additionally, our aircraft, we have some new aircraft in the state, they have a limited amount of fuel. This is the distance that they can fly to train would depend upon how much fuel they can carry. Our F-15 force, which is located down in Elmendorf, the F-15C models can fly in an area described about like this. They're just shy south of the Fairbanks area, then out to these other permanent MOAs, charted MOAs, out here to the west. Whereas the F-15E models, the Strike Eagles, are those air-to-ground F-15s, they have a larger fuel capacity and can fly pretty much up into the Yukon MOAs as they're charted today. The F-16s that are located at Eielson, as well as the A-10s, have training radius approximated by this area here. Again, they can reach the MOAs that are in the northeast part of the state.

The Federal Aviation Administration also has groups and structures out here. These are the highways in the sky that civil aviation, as well as military powers, can use to transit this state. They were created in the 1930s and '40s throughout America and they are essentially highways in the sky. Most of them go between these air spaces. The reason being, is so that way they're de-conflicted. We don't have -- people just trying to transit the state go into the military operating area. So there's -- we try to deconflict those systems.

The temporary MOAs that are charted here are essentially air spaces that are created to help provide the suitably-sized air space to do major flying exercises. And again, . . .

UNKNOWN VOICE:

Would you say that again because I didn't understand...(UNINTELLIGIBLE)

Maj Sifer:

I'm sorry, the blue air spaces are called Temporary Military Operating Areas. They're used to augment or to add to the charted air space so that the air space is big enough to contain an exercise. An exercise is where we take more than just a few aircraft, put them together and have them train in a scenario that kind of tries to simulate an aerial engagement of a good size. For example, something like we might do in some of the conflicts we've had in the past. By having these exercises, what it gives the Air Force is the ability to make sure its young pilots know how to operate in concert with a lot of other aircraft as opposed to say just one or two aircraft. Those air spaces are also located away from those highways in the sky so that we don't have any interference between military training and then, of course, the Federal Aviation Administration traffic that's flying around the state. So anyway, this is the structure that we're attempting to organize so that we can better do our mission.

Some of the changes that we're looking at, we've assessed in the document, are some changes to the charted air spaces and again, it's arrayed throughout the state. Some are lowering of floors, others are increasing -- raising of floors. The lowest altitude that the aircraft could fly in the air space. Some are reductions in hours of use. For example, some of the areas out here have less use, so we're reducing the number of hours that we're activating the air space.

Specific to this area, the proposal in Yukon 5 calls for a floor of 3,000 feet above ground level as being the base altitude. All the activity would have to occur at or greater than 3,000 feet above the ground. The areas out here, okay, provide additional air space to both do those flying exercises that I talked about, those larger scale exercises, as well as allow us to fly day-to-day in other areas so that all our activity is not focused in this green charted area as it is today.

This area here is also what we call a "notice to airmen" air space. What it means, it does not have regularly scheduled hours unlike these other areas here. These areas are scheduled from 8:00 in the morning to 6:00 at night. This area would only be used predominantly during exercises and in a very limited fashion day-to-day. In fact, this probably would have very limited routine use in the future. Again, and the reason is because of its range. It's much further for aircraft to travel out of Eielson and certainly out of Elmendorf down in Anchorage, to get up to this air space.

During exercises this air space tends to be a more high altitude orbit area. Often times what we do is we put what we call tanker aircraft, these are kind of gas trucks in the sky, that have the ability to give gas to fighter aircraft. They normally orbit upwards to 20- 30,000 feet. We additionally locate the, what we call, the surveillance aircraft. It has this large radar dome on top of the airplane and it does a surveillance, kind of an airborne surveillance radar, of the exercise area. That normally orbits up here as well. Okay. So again, a lot of the activity up here is higher. Again, it's very far removed from the range. Literally 120, 150 miles away from the bombing ranges. So aircraft will tend to stay at higher altitude and as they get into this area approaching the range, then they drop down to lower altitudes in order to reach their targets down at the bombing ranges.

In the course of scoping, a couple alternatives were identified and analyzed in the document. The first one I'll talk about here is the Alternative "B". I'll talk about "A" here in a second, besides "B". What it looks at is the substitution of Yukon 4 here and then Yukon 5 here. Eliminating those two air spaces and in its place, substituting the Tannana MOA down here, with the town of Tok right here. Again, it abuts up against the southern border of Yukon 3, the southeast border of Buffalo MOA here and the eastern border of Fox MOA. This air space was assessed as a

maneuvering air space. Meaning that the aircraft would do turning and essentially wouldn't just be a transit MOA where the aircraft are just trying to get from one point to another. Again, because these air spaces were assessed as maneuvering air spaces. It was also assessed for supersonic operations because a supersonic operations was also assessed up here in the proposed action.

Alternative "A" is a simpler alternative and it simply looked at eliminating the Clear Creek MOA which was a piece of new air space we've not used. Again, all these other air spaces we've used in the past. Simply eliminating that air space. So that's Alternative "A".

During the scoping process last fall, eight areas were identified as issues by the public and by agencies. The four primary areas were aviation safety, subsistence, wildlife and recreation. With those four categories receiving the most comments.

I'll turn it back over to Col. Hassan.

19:32 - Col. Rich Hassan:

So basically, we listened to what groups up here said and added another alternative to this study so that the alternative, as Major Siler said, several of the groups in this area and the Yukon-Charley folks from the National Park Service recommended, can you go look at another part of the state. So we did, and that's what he was referring to. We added this alternative here which would remove these two air spaces. So we have two different choices now based on what we heard from the public.

In addition to that, when we did our analysis and we said we found we wanted to look at what the impacts would be on wildlife, subsistence and recreation, we got a lot of information from folks while we were out last year with our maps, showing us where the herd movements were, where you had historically, you know, seen the caribou, for example, where you had historically done your hunting and we factored that into our study as well.

Mr. Ham has a couple of comments on what we found in this specific area here.

19:33 - Bill Ham:

From what we saw in the data gathering that went on during the scoping, that predominantly the subsistence areas in . . .

Barry Wallis:

What is scoping first?

Bill Ham:

Scoping is when we came out a year ago and basically explained the process and gathered some information. Talked to people about wildlife areas and those kind of things. So that happened about a year ago, sir.

Col. Hassan:

When we were here a year ago.

Barry Wallis:

Did you use other sources besides scoping comments?

Bill Ham:

Ah, yes. We used, for example, subsistence. Where we went back to some of the old subsistence documentation that was done by federal government, state government, talked to some of the local villages under subsistence use areas. And what was identified for this area, the predominant subsistence areas were generally along the river trends and the moose area was identified as probably one of the largest areas extending from down here in the Beaver area, generally filling up the area around Fort Yukon, Birch Creek and up through Beaver, extending down along the Yukon River, a little bit along the Birch Creek drainage, following on up the Yukon, on up the Porcupine, almost all the way to the Canadian border. And also along the Black River past Chalkyitsik and down into the northern portion of Yukon 4.

That's what was identified as probably the broadest subsistence area in this area. A little bit down from that was the areas for waterfowl. Basically the same general area, but not extending as far up the Porcupine, probably up in this area. And for the bears, same general areas except along the Black River here to about Chalkyitsik. The caribou areas that were identified were generally south of Birch Creek and south and west of Birch Creek and extending down this area.

From that analysis, from those areas that were described to us and with the

very limited use of Yukon 5 under this proposal and with this high floor, the assessment the group came up with was that we expected a very minimal impact on the subsistence lifestyle in this area. Generally, because most of your areas are outside of the air space except for right along the river drainages and with the high floor up in this area, it was suspected that it would be just a minimal impact due to the startle factor on the wildlife.

19:36 - Col. Rich Hassan:

We found that based on historic studies that have been done. For example, we have a 2,000 foot minimum floor, okay. Up here it's gonna be 3,000. We have a 2,000 minimum floor around where these orange lines are right now, which is the Peregrine falcon nesting sites and the most recent analysis says that the Peregrine falcons are flourishing right now in that area. So we feel fairly confident that 2,000 and above, 2,000 feet and above, we are having known minimum impact on wildlife. So, based on that, we put into place what we call mitigation. So we learn from our neighbors, we learned where specific areas of concern are.

Again, another example is in this general area right here. There is a high population. This happens to underlie this particular operations area. We have drawn the circles around this area where we will not overfly less than 30,000, 35,000 feet, 10 miles around. So those kinds of issues we tend to work with when issues are identified to us. So from our perspective here we wanted to come back, we wanted to let you know that we had taken into account what was brought to us. If you have any other - and that's summarized in that Executive Summary and I agree with you, sir, that, you know, 600 pages is a lot of stuff to get through and that's why we put that 20 page thing together. So with that, I'll turn it back over to the Colonel.

19:38 - Col. Jim Heupel:

Can we define one thing. We've talked about MOAs and I'm beginning to learn about MOAs since I'm not - this is not something I'm used to. Can you tell what is a MOA. What is a Military Operating Area. Cause I'm not sure if that's clear.

Col. Rich Hassan:

Yeah, this charted area here, in the green and the uncharted in the blue, Military Operations Areas are anywhere from 100, 500 feet on the floor low to 18,000

feet high. And these are the areas in the sky that the military are allowed to do their training in. This is not to keep civil aviation out, it is to confine the military in. And this is the only place we're allowed to do that training. So that for example in this case, this one, the lowest people can fly is 3,000 feet and the highest would be 18,000.

19:39 - Barry Wallis:

What are the new proposed areas?

Col. Rich Hassani:

The new proposed areas are -- we want to turn this blue which is -- we show this on a map and we've used it before, but we want to turn this blue into green so it shows up on civil air maps so if a guy flying his Piper Cub picked up one of his civil charts he would see these boxes and he would know that the military were allowed in there, so that would act as an advisory. As far as new air space is concerned, if we accepted the alternative that was suggested up here, which is to eliminate the Yukon 5 and the Yukon 4, we would create this MOA called Tanana in substitution. And that would be new. That does not exist today. So that would be new air space.

2:

(UNINTELLIGIBLE)

Barry Wallis:

Are there any endangered species in this?

Bill Ham:

No sir. The only -- there are a few, identified to us by Fish & Wildlife in the state, a few Peregrine falcon nests. But the main concentrations are right here along the rivers and up along the Porcupine, up here in the north. There are a few other spotted nest sites along here. It's the only ones that have been identified to us.

Col. Heupel:

We don't think we're picking you up on the mikes. Perhaps it would be easier if we could get the two of you to just scoot the chairs up a little bit closer and then we can go ahead and talk. But ah, -- just drape it over and let's -- okay, okay.

Barry Wallis:

My question was, you said Fish & Wildlife or Fish & Game provided . . .

Bill Ham:

Yes sir, information on Peregrine falcon nests sites. And that's the only identified endangered specie in this area.

Barry Wallis:

What documents did they give you to determine (UNINTELLIGIBLE).

Bill Ham:

Ah, sir, we've worked with Mr. Skip Ambrose who works out of the Fairbanks office of Fish & Wildlife and he's their Peregrine falcon -- and our biologist basically consulted with him. I don't have it in my hand, the reference material that they used, but we sat down with them and went through all of our maps. We plotted out all the different wildlife species and then they told us whether we were right or wrong in eye-to-eye consultation with them and their biologist.

Barry Wallis:

And is the information contained in the 600 pages?

Bill Ham:

Yes sir. There are maps, detailed maps. We broke the EIS up into four sections. This is called the northern interior region and then if you get into the wildlife section for northern interior, you'll see caribou, moose, birds. You'll see all those areas broken up. Caribou, moose, Dall sheep for the main hoof creatures. And there's a whole series of maps for waterfowl. There's a series of maps for the falcons and the other bird species.

19:44 - Barry Wallis:

The Environmental Impact policy or procedure for collecting information, who makes that rule and what (UNINTELLIGIBLE)?

Col. Jim Heupel:

Well the statute that provides the requirements for conducting the environmental process is the National Environmental Policy Act. Sometimes it's referred to as NEPA, N-E-P-A. That's the overall statute that provides for -- that, whether it's the Air Force or any governmental agency that's going to be going out doing things that would potentially affect the environment, that there is a series of studies that have to be gone through, including having the public hearing and getting public comment and

I can't tell you what the cite of the statute is, all the implementing regulations are found in the Code of Federal Regulations, but I'm not an environmental lawyer, so I'm not sure exactly

UNKNOWN VOICES:

Do you know what part of the CFR?

UNKNOWN VOICE:

Forty.

Bill Ham:

It's forty. But I'm not

Col. Jim Heupel:

I think it's -- yeah, it's forty. Somewhere in the forty series I believe is right.

Col. Rich Hassan:

Yeah, it's very well spelled out. I mean the Environmental Impact Statement process is defined as, you know, a proponent. A federal agency puts together a proposal. The proposal then is brought to the public and is termed scoping. Which is why we were here last fall. We went through the scoping process, said here's what we have proposed to do. We collected comments, not only from, you know, the villages we went to, but from Tanana Chief's, from U.S. Fish & Wildlife, Alaska Department of Fish & Game, National Park Service, BLM, lots of different places. We then went through and did this analysis based on all of the information that was presented to us. And then now we come to the public hearing phase which is, okay, here's the information we collected. What do you think? Do you think we did a good enough job? If not, then we'll go back and do better. And then a final Environmental Impact Statement is issued, probably this time next year, next summer. July, August time frame. That will come back out for public comment. And then the Air Force, based on everything that's been presented, you know, for example, is Alternative "B" where you put Tanana as opposed to Yukon 4, which one is the smarter way to go. Which one has, you know, the old scale balance. Which one has the least effects and then the decision maker makes that decision based on everything that's said. That's why we're recording here tonight, because everything you say

goes into a record of public hearings and we need to address any issues that -- I didn't mean to (UNINTELLIGIBLE).

Barry Wallis:

Who would be the decision maker who's going to make the final decision?

Col. Rich Hassan:

The decision maker is the Commander of Pacific Air Forces, which is a four star Air Force general and he is in Hawaii. However, it is also done in consultation with the Secretary of the Air Force. So it goes to a civilian senior leader to do a review and then it comes back down and he makes the final decision. He's the guy that writes what's called a record of decision (UNINTELLIGIBLE).

19:46 - Col. Jim Heupel:

And does the FAA have

Col. Rich Hassan:

Yes. And at the end of our process, everything's done, he makes the decision. He says this is what I'm going to do. Then the FAA, Federal Aviation Administration, starts what's called circularization process which lasts about six months. And they basically go back out for public comments and say is there anything that the Air Force missed in their decision and then they actually are the ones that approve this. The Air Force does not approve this. The FAA controls all air space in America.

Steve Ginnis:

How do you determine the altitude aircraft (UNINTELLIGIBLE).

Col. Rich Hassan:

It's a combination of things. First and foremost is how we need to train. And the way we train is that basically there is training that's done high and then there's training that's done low. And in our case, as Major Siter said, when you get out to these areas here, the predominant type of training that we would need to do is basically higher. But in consultation with, when we talked with folks like U.S. Fish & Wildlife and we talked -- and our experience, because remember now, we've been flying in this area for 30 years or since World War II, we understand the concerns of the noise on people. We have studied, we have funded studies for the effect, to see what the effect of aircraft noise on animals is and so generally, the higher up you are, the less impact

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it has. The higher you go in the airplane, the less noise humans hear, the less noise animals hear.

UNKNOWN VOICE:

(UNINTELLIGIBLE)

Col. Rich Hassan:

Yes. So down in this area, however, when we get into the surface ranges, as we get closer we need to get lower to the ground. So as we go down and back in a bigger perspective, remember here's the three ranges, here's Eielson AFB, here's Fairbanks. So it's generally in this area here, we do fly low in other places, but it's generally in this area here that where we fly low.

UNKNOWN VOICE:

Where, right here?

Col. Rich Hassan:

Yeah. Generally in this area here.

Barry Wallis:

Have there been any studies or comparisons made with other areas in Alaska or other parts of the country where this type of activity is done?

Col. Rich Hassan:

Yeah. The Air Force has basically funded studies throughout the country. Right now we, in Alaska specifically, have funded some studies with caribou, moose, Peregrine falcon. About to get into one with other raptors, eagles. We don't fund those with the Air Force. We fund those with other agencies and like UAF and . . .

Barry Wallis:

How many flights are you talking about (UNINTELLIGIBLE).

Maj. Bob Siter:

Right in the Executive Summary it's less than one a day for routine training and higher, certainly, for the exercise. Again, realizing that the aircraft that are involved in the exercise are much higher than the floor. Three thousand foot (UNINTELLIGIBLE).

Barry Wallis:

What page are you looking at (UNINTELLIGIBLE).

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Maj. Bob Siter:

Page 6, sir. That table right there you'll note (UNINTELLIGIBLE), go down (UNINTELLIGIBLE).

Barry Wallis:

(UNINTELLIGIBLE)

Maj. Bob Siter:

That's accurately average, per day average (UNINTELLIGIBLE).

?:

So, what's the maximum?

Major Siter:

The maximum for routine training would be one sortie, average, per day. Realize that the Air Force trains day-to-day. It has around 240 training days. We exclude most of the weekend days and stuff like that. Out of those 240 days, up to 60 days will be used for making flying exercises.

19:51 - Barry Wallis:

Okay, that's what I'm talking about. Scheduled flying days. What are the maximum (UNINTELLIGIBLE).

Maj. Bob Siter:

The maximum is 60 major flying exercises per year.

Col. Rich Hassan:

Major flying exercise days.

Maj. Bob Siter:

Number of days. That is correct. Okay. The number is 60.

Barry Wallis:

Sixty per day.

Maj. Bob Siter:

Sixty days of the year . . .

Barry Wallis:

Okay, I need the maximum number . . .

Col. Heupel:

Maximum number of aircraft is what you're asking.

Barry Wallis

Right. Right.

Maj. Bob Siter:

In the table it says maximum is 170. Again, those aircraft when they're in the exercise because of the array of the air space, this is the outer reaches of the air space. The aircraft that are out here, what they're doing is they're taking fuel from aerial tankers — we're simulating the aircraft are going way out. For example, in the Desert Storm a lot of the aircraft took off from outlying bases in Saudi Arabia, went a long distance to get to a tanker even though they still weren't in Iraq yet. Took fuel and then they continued on from there to the target. That's what we're trying to train here is what we call force projection. The ability to have air forces go a long distance and get to a target and get back safely. So these outlying areas are what we call orbiting areas and the aircraft are like upwards of 25,000, 30,000 feet. Realize that MOAs go up to 18,000 feet. But then there's another structure that goes above that to 50,000 feet. Most of the activity that occurs out here and I've been out here in exercises in F-15s and I was at 30,000, 25,000, 30,000 feet on the days that I've done this. Again, getting behind another aircraft, taking fuel from his aircraft. What happens then is we get arrayed kind of like a football team; we got blockers up front, strikers in the back, kind of the guys that are trying to get protected and you start moving out in different packages. You might get a package or a grouping that goes from the north down to this side of the area. Another might be over here and they're coming in from here. The idea is not all these aircraft are in one place at one time. They're dispersed. Because part of the ability for aircraft to get to defendant targets, you realize defense is not just airplanes, they're surface to air missiles. These are simulated threat emitters that send up signals that lock on the aircraft and you can shoot a missile from the ground to the air at them. Again, it's all simulated. The ability to get to that target, you can't just run everybody the same way the same day, cause they're not gonna be successful. So it's a fairly complicated attack. It's time sequenced, as well as geographically de-conflicted. And those aircraft going to their targets and once they finish their attacks, they come back out and then they get back here and they go home. Again, simulating actual — the way we see aerial combat done in the last 10 years is essentially what we're trying to replicate here.

Col. Rich Hassan:

Let me just tell you what we've done. We have assessed in this document what would be the impact if we did a major flying exercise for 60 days. We have done up to three or four of these exercises a year and they last about 10 days. Ten training days of which there is a two-hour window in the morning and two-hour window in the afternoon. So that during that period, on 10 days, and then another time 10 days and then another time 10 days, that's when we've done the major flying exercises. Other than that, routine training you may see one sortie in this whole one airplane in this whole area (UNINTELLIGIBLE).

Barry Wallis

During the summer, I don't know what kind of jets came over Fort Yukon, but it rattled the whole town. If that's what we're talking about there's definitely impacts on people and the animals in the area. I don't know what altitude they were flying, but they shot through Fort Yukon and the whole town rattled.

Col. Rich Hassan:

That was this summer?

Barry Wallis

Yes.

Maj. Bob Siter:

One of the reasons why military operating areas were created is that it's supposed to confine high speed military traffic. Aircraft that are outside the military operating areas below 10,000 feet are regulated just as any other aircraft, civilian or military. In that below 10,000 feet they're not allowed to fly above 250 knots. And so high speed traffic over Fort Yukon, because there's not a military training route through there, shouldn't have happened. One of the things that we've instituted in the past year is a noise complaint system. It's a 1-800 number and we can give you that tonight. If that were to happen we would like that reported. Our PA person, public affairs, is Capt. Troeber from Eielson. She's here tonight. If you can give us — all we need to know is the location and the time and the date that it happened and if you happen to know how many aircraft — we don't even need to know the type, if you just tell us how many aircraft. We have methods of doing an investigation where we

freeze the tapes that the planes carry on board and also do a complete scheduling search to figure out what aircraft were airborne at that time and who might have been in that area. And so the idea is as soon as you can report it, the better off we are in terms of completing that investigation thoroughly.

Barry Wallis

So (UNINTELLIGIBLE) the problem (UNINTELLIGIBLE) I mean I know what I heard. (UNINTELLIGIBLE) can't fly (UNINTELLIGIBLE) Fort Yukon then what happens, you know, what happens on your part to prevent this from happening. (UNINTELLIGIBLE) do an investigation.

Maj. Bob Siter

In the investigation the term is that the pilots willfully violate our environmental program. Part of our environmental program has been in place for a long time, it's what we call -- it's a noise sensitive list. And there are areas for example, see these orange lines here and all this. Some are for wildlife, but others are for towns. Okay? Aircraft are specified during certain times of the year not to fly over these areas below a certain altitude. That is above the floor that already exists in that air space, so these are additional altitude restrictions. And a part of that is that we use our 1-800 service or our phone calls to our public affairs to determine if our program is effective. And where changes are needed, we take those and add those to the list. This area here, okay, Fort Yukon, there's no air space out there, there is no reason for high speed military traffic out there. If that is occurring, we want to know about it so that we can stop it. When we find people in the Air Force, and this has happened in Alaska the last few years, not this year, is pilots who have willfully violated the environmental program essentially have been grounded. In some instances the squadron commander lost his job.

Barry Wallis

Would the MOA or whatever you call it.

Maj. Bob Siter

Military Operating Areas?

Barry Wallis

Okay, does that restrict military from operating only in those areas?

Maj. Bob Siter

That is correct. The idea is to restrict -- that again is . . .

Barry Wallis

Is there any time that you could get out of that area?

Col. Hassan

Yes. As long as you're flying just like any other airplane in the country that's allowed to go anywhere which is less than 250 miles an hour.

Col. Heupel

Just a moment please for the tape.

(END SIDE ONE, TAPE ONE)

(BEGINNING SIDE TWO, TAPE ONE)

Col. Rich Hassan

Yeah, I mean any airplane that flies less than 250 miles an hour, like the C-12 that brought us up here today can fly anywhere. But the high speed aircraft, the fighters, that's very difficult for them to fly in that speed. So normally we would not find the jet fighters flying outside an area normally (UNINTELLIGIBLE).

Barry Wallis

I've lived here all of my life and almost every summer you hear one or two sonic booms right here in Fort Yukon. And I don't know if they're doing it to be funny or what, but they'll come through town and just rattle this whole town. And, you know, if the military -- my opinion is if you don't have control over your pilots, you know, I mean here we are saying, I mean we're objecting already to the use of that space. But you have -- I mean it's from our perspective and what we know about it (UNINTELLIGIBLE) the military (UNINTELLIGIBLE) to allow them to encroach (UNINTELLIGIBLE) into areas that we want to protect. I think, for the record, it's not very good. I really seriously think you should go back and play the tapes for the last month of July and August and you will find, I don't know, if it's not your military flights then it's somebody else's. But they visited Fort Yukon at least three times this summer. People thought there was an earthquake here because it literally rattled this little town.

Maj. Bob Siter:

I would encourage you to — the key is if we can get the information. We do want to make sure all our pilots are complying with our program in flying and that's — if that's the case and we have high speed military traffic overflying Fort Yukon, that's a violation of the FAA restrictions as well. They're not allowed to fly over towns at low altitude. We need that reported. And again, the idea is we will do a thorough investigation. With your help we can start that investigation. Often times back at our bases we're not aware of these things happening. We solicit your help to help us do that investigation.

20:00 - Barry Wallis:

Most people will not complain (UNINTELLIGIBLE) you know, people have a (UNINTELLIGIBLE) view of the military and that they can do anything they want anytime they want (UNINTELLIGIBLE) creating a sound problem, they just accept it and they say, Well, I hope that doesn't happen again so early in the morning.

Maj. Bob Siter:

Could I give you an example? Just recently was a change. Remember I said this noise-sensitive list is a dynamic or changing list. It's got 38 points on it now and it didn't start out with 38 points. It was built to that based on people participating in helping us 1) to run investigations and 2) to help us find that balance. We're looking for a balance in our ability to train, but also showing concern for the people and the wildlife that's out there. And again, this mitigation is not just about people and it's not just about animals, it's about both. In the Circle Hot Springs and Central area, they were having difficulty with sonic booms, okay. Somewhat what you're talking about here. But again, they're in the air space and this is an authorized supersonic area and because their town, through Capt. Troeber's office, made us more aware of the impact that our training was having on that area. There is now a 10-mile-radius circle around these two towns, essentially about this big, where we're not allowed to go supersonic over that area so that we're not — the sonic boom footprint is not reaching the ground out there. Again, that was in consultation with these townspeople who, again, used the 800 service and talked to Capt. Troeber and the bottom line is, we shouldn't have to mitigate this area, because if that's happening, then that's

essentially something that we need to enforce, that's a violation of our own flying program and again, I solicit your help in terms of identifying the aircraft that are out there and we'll run a thorough investigation. We will punish people who willfully violate — particularly when they're outside of military air space. There's no excuse for that and I can assure you we will run a thorough investigation and take appropriate measures where they're warranted.

20:03 - Barry Wallis:

You talked about this charting, charted area, how is that a justification for expanding?

Col. Rich Hassan:

We utilize this air space now, just for these major flying exercises. One of the advantages — I mean our budget's going down like everybody else's budget and we're trying to look for ways to save money. And one way to save money is, is if we get this air space charted, every time we have to use this air space, we have to go back through the administrative process with the Federal Aviation Administration and essentially over the past three years we have applied for the same air space for the same reason over and over again. Nine times in the last three years and it's costs us over a million dollars and we just would save that money. It's as simple as that.

Barry Wallis:

The passenger flights that fly over the North Pole here, how high are they flying?

Maj. Bob Siter:

When they come across they're usually up greater than 30,000 feet. If they're gonna land in Fairbanks they may start an interim descent. One of the things that they'll often times do is they will cap an air space. What I mean by that is tell the aircraft that they can't fly at or above a certain altitude. For example, there's an overlying—that's called an ATCAA. It goes over the top of the MOAs and that's the air space I told you went up to 50,000 feet. Often times they'll tell them that they don't have the overlying ATCAA and they may say stay at or below 25,000 feet or 20,000 feet until that airliner moves on a polar route, what you're talking about, is past the air space. That's another reason why they're broken into pieces. If they

weren't broken into pieces, if the FAA had to cap one portion of the air space, they'd have to cap it all. So when you see them in pieces like this, it's to give the FAA flexibility on what they'd have to restrict the pilots to.

Col. Rich Hassan:

Also, 40% comes right down this way. Forty percent of all the major airline traffic comes down this corridor which is why we were not at liberty to put more air space out in this area.

Maj. Bob Sifer:

Some of those highways in the sky — Fort Yukon is a major intersection, if you will, of routes that come in from Fairbanks over this direction as well, and so there's a lot of instrument flight rules traffic, there's airliner traffic, commercial air carrier, as well as civilian. Just general aviation can use those airways. A lot of traffic over here is one of the reasons why MOAs weren't put over here in the past and were not considered for this proposal because there's just too much traffic here with those airways.

20:05 - Steve Ginnis:

Is this the only place in the state that you guys train or I mean, I looked at this map and that's what it seems like to me.

Maj. Bob Sifer:

The areas that we train, this is the one I showed you early on and I talked about air space out here. There is charted air space here. It's been here since 1976, when MOAs were — Military Operating Areas is a concept. It was created by the FAA with the military almost 20-odd years ago and a lot of our aircraft from Elmendorf, the F-15s, the air-to-air versions still train out of these areas. Predominantly Sustaina, Stony and Naknek air space. Again, the C models do work in those groupings that do exercises, but they also do air defense. The air defense mission protecting Alaskan air space has not gone away because the Cold War ended. We still do that, okay. So training is going on out here as well. What's good about this is as you all well know in Alaska the weather in southwest Alaska can totally be different one day, than the weather you find up in the Yukon area. And so what it gives us is the flexibility to deal with the adverse weather. Particularly in the winter when you've only got a

limited window of daylight time to fly and the weather can be fairly adverse for literally a week or more at a time. One of the reasons why the air operations is focused—and admittedly restructure is about focusing some air operations. Okay? Away from here toward here and it's driven by these three bombing ranges. We don't have any bombing ranges out here, otherwise we would take a portion of our routine training and maybe even have considered an exercise area out here, but there's no bombing ranges out here. And right now because of the environmental potential impact of the new bombing ranges on ground and land, that's not being considered. And so the array of where the bombing ranges, as well as where the bases are, and the amount of fuel our planes can carry, focuses air operations in this part of the state. We can't fly out here. We don't have the gas to get out to this part of the state. We can't fly up even further here or even down in these areas here. And so again, a lot of these limitations kind of give us a limited number of options on how to get our training done. Particularly as it's involved to this air-to-ground training.

20:08 - Barry Wallis:

In your scoping of the Yukon 5 and determining impacts on subsistence—is that reflected somewhere inside the 600 pages?

Bill Ham:

Very generally, there's not as much detail on your area here because your areas are not specifically under the MOAs, but we do talk about, in the subsistence section, about some of the patterns along the rivers here, sir.

Barry Wallis:

And are they charted out in here?

Bill Ham:

They're not in the EIS on a map. No sir, they're not. I've got some maps here that we can look at later that were just part of our working papers, but they weren't specifically put into the (UNINTELLIGIBLE).

Barry Wallis:

Is there a way to access copies of those?

Bill Ham:

We could get you copies of what we used, yes sir.

Barry Wallis:

Did you work with the Council of Athabaskan Tribal Governments?-- traplines, fishing, (UNINTELLIGIBLE)

Bill Ham:

Sir, I can't give you the details on that. I did not do the subsistence myself, so I'd have to find that information for you on how much they did on the trap line and the fishing. Our primary concern were the bigger animals and the waterfowl.

Barry Wallis:

I know they're gonna want detailed maps on which trappers (UNINTELLIGIBLE).

Steve Ginnis:

Well, have these been sent out or is this the first time we're seeing this?

Maj. Bob Sifer:

The mailing list -- anyone who attended the scoping meetings last year, if they signed in, we added them to the mailing list and literally, around the state, about 700 copies of these were mailed. So there are copies in town to the people who came here last year and got on the mailing list. By being here tonight, you're now on our mailing list. We have also been sending out newsletters. In between being here last fall and tonight, newsletters have gone out to those same people that were on the mailing list to kind of let them know where we've been because we knew we'd come back, but it would be a year before we came back. We wanted to keep all the people abreast of how things were moving along.

Col. Jim Heupel:

The four volume EIS is located here in this building. Is that right?

Maj. Bob Sifer:

And again, this was released about a month ago, on the 2nd of September, when these were all mailed out. So, they've been pretty much out about a month. And again, our comment period lasts, as the Colonel has mentioned, till the 30th of November. So again, using this, what this is is cross-referenced to the main documents, so I would start here, as you've got tonight and read through it and then it will tell you the sections. After the title it has the sections within the full EIS so the particular area

--this will lead you to the main full document. Where to look. So that you can get the depth of information that you'd like.

20:11 - Col. Jim Heupel:

Sir, I had stopped you earlier when you had a question you were going to ask Col. Hassan. Have you been able to ask that question?

Steve Ginnis:

I don't know. He might have answered it. I was just curious to know, there's some terminology here that's out of my line. He talked about air-to-air training and air-to-ground training. (UNINTELLIGIBLE) terminology (UNINTELLIGIBLE) and I don't quite understand charter air space and uncharter air space. Those were the questions I guess I was gonna ask him.

Maj. Bob Sifer:

Those are good questions. The air-to-air, predominantly air-to-air, the F-15C model is predominantly an air-to-air aircraft. What it means is my aircraft mission is to defend or attack other aircraft. It is things that are in the air. To deal with things that are in the air. Not targets that are on the ground. Although realize in doing my air-to-air missions (UNINTELLIGIBLE) airplane, I have to maybe consider things are on the ground. Those surface-to-air missile threats that I talked about earlier. An air-to-ground pilot carries, in training, carries training munitions. In an act of combat carries live munitions and his goal is to fly his aircraft to some target on the ground. Okay, for example it might be a factory complex, it might be a communications antenna or a communications site. It's a specific fixed target on the ground. Additionally, it might be we have some air-to-ground spots of attack moving things on the ground like tanks or trucks. Okay? So air-to-ground is where you take an aircraft and use it to deal with things that are on the ground. And again, air-to-air is where an aircraft is dealing with things that are in the air. Other airplanes. Okay? Again, the thing about charted air space is that charted air space was created in 1976. Just prior to that, the military could operate anywhere in the country. It could be here, it could be here, it could be where some of the MOAs are today, but they could train anywhere. So imagine if you would you're a civilian pilot flying around in 1975. You would not have a clue where the military might be that day. In fact, they may be training here

one day, a Monday, and then Wednesday they're over here. So the civilian pilots never knew where we would be. And so from the air safety standpoint, that wasn't very safe. And so the FAA told the military, Okay, new rules. The rules are: We're gonna have to define areas to where you can train. Why? So that civilian pilots will know where you are. And so they looked at where the airway structure was, we looked at where our bases were and how far our planes could fly back in 1976, which were different airplanes than we have today, and these areas were put on maps. Now the civilian pilots had an idea, that they knew that the military was gonna do its training, it had to be inside these boxes. That they wouldn't be out here doing high speed training. Okay? So it was a safety thing. And so what we want to do is take air space we already have access to for exercises and chart it so that pilots will know that we will be here and when we'll be here. Hours are published on when we can fly in these air spaces. Okay. Part of what we're doing with the proposal is actually reducing the number of hours in certain air spaces so that we're not using the air space, it's free for other people to go through knowing that the military will not be there during those hours. Again, it's for safety and awareness.

Barry Wallis:

I (UNINTELLIGIBLE) on another, again, a political problem that we encountered last year was (UNINTELLIGIBLE) surveillance information (UNINTELLIGIBLE). (UNINTELLIGIBLE) informed Steve who was the First Chief at that time, he hasn't taken any official action on this (UNINTELLIGIBLE). Our determination of it was that it was not a very kosher thing for the military to be doing. Thought that it was unfair. We have not completed our review of the impacts (UNINTELLIGIBLE), but we definitely wanted a public comment without delays and hopefully (UNINTELLIGIBLE) a public document and for the judge this information was -- there's a list of (UNINTELLIGIBLE) various target areas (UNINTELLIGIBLE) and was occupied by one of the visitors to Fort Yukon (UNINTELLIGIBLE). I don't know if the person responsible for the list has been -- if that's been determined. We feel -- like I said, we haven't assessed whether, at this point, (UNINTELLIGIBLE), but it is of a serious matter for the townsmen (UNINTELLIGIBLE). It's gonna take (UNINTELLIGIBLE).

Steve Ginnis:

I gotta run. See you guys tomorrow.

Col. Mike Heupel:

For the record, can I get your name sir.

Steve Ginnis:

Yes. I'm Steve Ginnis. I'm the Chief of this community here.

Col. Mike Heupel:

Thank you, sir.

Steve Ginnis:

And I'll be here tomorrow.

Brian Hoefler:

Could you spell your name, please.

Steve Ginnis:

Ginnis. G-I-N-N-I-S.

Col. Mike Heupel:

And sir, can I get your name.

Barry Wallis:

Barry Wallis. (UNINTELLIGIBLE)

Col. Mike Heupel:

Thank you sir. Thank you very much for coming and thank you for your comments and questions.

Steve Ginnis:

Be here tomorrow for sure.

Col. Mike Heupel:

Okay, let's . . .

Steve Ginnis:

Who's gonna be--Who wants to do the thing on the air? You?

UNKNOWN VOICE:

Okay.

Brian Hoefler:

This is Clarence Alexander. He's the chairman of the Council of

Athabasca... (UNINTELLIGIBLE).

Clarence Alexander:

Good evening.

Col. Mike Heupel:

Can we -- let's see -- what's the -- what's the best thing for us to try to do?
Can we perhaps answer some questions for you sir, rather than try to go back over all
this right now, will you be able to come tomorrow at 1:00?

Clarence Alexander:

Yeah. I was gonna look at some of the material you have here.

Col. Mike Heupel:

You're welcome to take it with you and look at it over the night.

Clarence Alexander:

Of course.

Col. Mike Heupel:

That would be fine. Now will you have things going on in here tomorrow
morning.

UNKNOWN VOICE:

(UNINTELLIGIBLE)

Col. Mike Heupel:

Can we leave the chairs and tables set up. That would make it easier and
faster. Okay. Well then, we'll come back tomorrow at 1:00. The only limitation that
we'll have is that we'll need to be able to leave so we can get to the airplane, what
time, 3:30, 3:00 o'clock, in order to be able to get . . . Thank you very much.

END OF TAPE

CERTIFICATION PAGE

I, Diane A. Beaulieu, do certify that this transcript is an accurate record of the
proceedings as recorded.

DATED: 10/17/94

Diane A. Beaulieu
Diane A. Beaulieu

Subscribed and sworn to
before me this 17 day
of October, 1994.

Sandra Madigan
Notary Public
My Commission Expires: 9-1-97

Addendum:

The complete tape and transcript of the first Ft. Yukon MOA DEIS public
hearing (October 3, 1994) were reviewed and corrections made accordingly to the
electronic (disk) and hard copy versions.

Karen McKibbin
Spectrum Sciences and Software, Inc.
November 18, 1994

ALASKA MILITARY OPERATIONS AREAS

PUBLIC HEARING

DELTA JUNCTION, ALASKA

SEPTEMBER 27, 1994

COL HEUPEL:

I want to thank you for coming out to tonight's hearing which is a public hearing on the Draft Environmental Impact Statement for the Alaskan Military Operations Areas. We really want your comments and your involvement in the meeting tonight.

I'm Colonel Jim Heupel and I'm serving as the presiding officer for this public hearing. I'm a military trial judge for the Air Force and I'm assigned out of Washington, D.C. And it's in that capacity that I'm conducting the meeting.

I do want to introduce to you the other member's of tonight's panel. We have Colonel Rich Hassan who's the Commander of the 611th Air Support Group and that's—he's stationed out of Elmendorf Air Force Base in Anchorage. Colonel Hassan will be providing you an overview of the environmental impact statement process. If you're not totally familiar with that, you're going to hear us talk about EIS or draft EIS. And the EIS is the environmental impact statement process.

Then Major Bob Siter is also stationed at Elmendorf Air Force Base. He's an F-15 pilot and he's the Chief of the Fighter Operations at the 611 Air Support—or excuse me, the Air Operations Group. Major Siter will be briefing you on the proposals that have been studied, as well as issues that were raised at the earlier scoping meetings that were held here at Delta Junction and other places.

Then in the back, Mr. Bill Ham, is employed by Spectrum Sciences and Software. They're a contractor working for the Air Force. They're out of Florida and Mr. Ham will be briefing you on the environmental consequences of the proposed actions and the alternative actions being studied.

I mentioned I was a trial judge. I'm not acting as a legal advisor or as an authority on this draft EIS. I haven't had any involvement with its development. My purpose in being here tonight is just to insure an orderly hearing and to make sure that

everybody who wishes to provide input tonight has a fair opportunity to speak and to be heard.

At this time, let me explain the procedures we'll be using. You'll notice that we do have a court reporter who's recording word-for-word everything that we say and everything that you have to say, as well as questions and answers. That's all going to be part of the final Environmental Impact Statement. Now, the Air Force has prepared this draft Environmental Impact Statement and this is just one part of it on the Alaskan Military Operations Area. And it's been done in accordance with the National Environmental Policy Act and Air Force Regulations that implement that act.

The purpose of the hearing tonight is to summarize the results of the Draft Environmental Impact Statement and to receive your comments on this draft. Now, tonight's hearing will be in two parts. During the first part, Colonel Hassan, Major Siter and Mr. Ham will present information to you concerning the environmental impact analysis process. This briefing is required and will take approximately 45-50 minutes. The second part of the hearing is to provide you, as the public, an opportunity to comment on the Draft Environmental Impact Statement or to ask clarifying questions.

This hearing is intended to provide public forum for two-way communications about the draft EIS, with a view towards improving the overall decision making process. Your inputs insure that the decision makers can benefit from your knowledge of the local area and any adverse environmental effects that you think may result from the proposed action or the alternatives to that action. This hearing is not a debate or a vote on what's been analyzed. But it is an opportunity for us to hear your comments on it.

Let me just point out that none of us, myself or the panel makers, are the decision makers on this project.

Now, when you came in tonight, you were given the opportunity to indicate whether you wanted to make a statement. If we have any elected public officials here now, or as we go along, I'll give them an opportunity to speak first. Then anybody that signed up, I'll give you an opportunity and even if you haven't signed up, if you've got some comments at the end or if you've got some questions, we'll give you

that opportunity to do that. If you don't want to speak tonight, you've got an opportunity to still provide written comments to the Air Force and you can do that up until the 30th of November. Originally it was 31 October, it's been extended. The address to send these comments to is at the top of the comment sheet that's available out at the desk just outside. You may have picked up a copy. Whether you provide oral comments tonight, or whether you turn in any kind of written comments tonight, or whether you wait and send some comments in later on, they've all got equal weight and will be considered the same. So, if you want to look at the Environmental Impact Study a little bit more thoroughly and haven't had a chance to do so to get a copy. I believe, one's here—is it at the library? I believe so. I'll get someone to check. You've seen it there at the library. Okay, it's at the library here in Delta Junction. Take a look at it and please send us any comments. Just let me stress that this is your opportunity to provide the Air Force with any information you may have regarding environmental factors that we don't know about and to have an input into the decisions that the Air Force is going to have to make regarding the proposed action or alternative action.

With that, let me introduce Colonel Hassan to provide an overview of the environment impact analysis process.

COL. HASSAN:

I'll just kind of go through this and we'll keep it informal. We have just the two of us — three of us here. What I'd like to do is reiterate that the purpose of going through the presentation or briefing for you, is to really let you know kind of what we've done and how we've done it. And, therefore, focus you on the issues that have come up and you can understand how we got to where we are today.

We'll follow this format, as the Colonel mentioned. And I'd like to emphasize a couple of points up front that came out when we went around earlier. First of all, this is a proposal. And that is, it's something that we started a year ago, we went out and got a lot of inputs from the public, from federal agencies, from state agencies. We took those into account, we analyzed them over the past year and we still got a year to go before any record of decision is made on this process. Secondly, this—this EIS itself does not address increase in the numbers of aircraft or increase in the amount of flying in the state of Alaska. And in fact, we don't expect the overall

amount of flying in the state to increase. Third, which is something that came out of a lot of our interaction with the civil aviators, the concept of Military Operations Areas is one that is somewhat misunderstood. Military Operations Areas are those areas where the military are confined to do their maneuvering training in. That does not exclude the public from accessing that space. It never has, it never will. What it does do is act as an advisory to civilian aviators as to where the military will be allowed to do their maneuvering training. And last, but not least at all, throughout this whole process, we have accepted input, we have acted on input and we will continue to do so, from the public as well as federal and state agencies.

The reason that we are doing this Environmental Impact Statement, is first and foremost to improve the Military Operations Area airspace structure that was created in 1976 to meet today's needs. The Air Force in Alaska has been focused on the Cold War, basically doing a lot of air-to-air training in order to be prepared to intercept any sort of foreign adversary that might have wanted to invade the United States.

Since the end of the Cold War, we have refocused our mission tasking and it is now so that the folks can train to be prepared to pick up and deploy to hot spots around the world. As such, there's a lot of air-to-ground training that's associated with that kind of preparedness and so we need to adjust our Military Operations Areas structure to better meet those needs. Secondly, improving flight safety and saving tax dollars are really connected. We have a structure in the state that is permanent Military Operations Areas. That is supplemented by temporary Military Operations Areas and we institute the temporary Military Operations Areas when we need to have larger airspace to conduct exercises. While that process that we have to go through to attain that airspace is a fairly lengthy bureaucratic one and it costs money every time we do it. We've had to do it over and over again for the same airspace, for the same reasons and we believe by turning that temporary airspace into permanent airspace, not only will we save money, but that airspace will be charted on air maps just like permanent airspace and act as an additional advisory to where, again, the military are allowed to train.

Finally, the strategic location of Alaska becomes more and more critical to our national defense. As we draw down forces, those few forces that we have left, need to be in places where they are the most flexible. And the state of Alaska offers the ability to go either east or west for rapid deployment, better than any other location in the United States. So our forces here in Alaska, that we have, need to be trained and ready to go.

The process that we've gone through, started a year ago in scoping. We were here in Delta Junction. We were here in other locations around the state, collecting the inputs, presenting our proposal at that time. Over the past year, we've put together the Draft Environmental Impact Statement that brings us to where we are tonight, a review of that at public hearings. It will take about another six to eight months to go back and tweak the analysis or to add things to the analysis, based on the comments we have received from you, as well as everybody else. And then again, the record of decision is expected to come out some time around this time next year.

The document itself is a rather—as you said, you saw it—I mean, it's a rather thick document. But basically, it's divided into four pieces. Why we're doing it. How we're doing it. Where we're doing it. And what kind of impacts did we find in the analysis.

Here's the 15 kind of (UNINTELLIGIBLE) locations that we're going to. Those are the same locations that we were at last year for scoping. This is the time line we're on. Here tonight in Delta Junction, we started last week in Anchorage, been to Fairbanks, and we'll continue on down through the 12th of October at Sleetmute.

As the Colonel mentioned, we will be accepting comments well past the 12th of October through the 30th of November.

Now, I'd like to ask Major Siter to take you through the proposal itself and to talk about some of the issues that were raised, not only by you, but others throughout the scoping process.

MAJ SITER:

Thank you sir.

Colonel Hassan talked about change and the change is the driving force

behind why we've been out in the public talking about how the Air Force can handle its changing training needs, given the fact that our readiness requirements have also been changing. The Air Force, as it looks at how it deals with change, has to look at the infrastructure it has built up over the decades in terms of determining what are the reasonable alternatives to adapting to this change.

The first of the two major bases in Alaska; Eielson in the Fairbanks area and Elmendorf down in the Anchorage area. These bases were created during the Second World War. Additionally, the surface bombing ranges here again, of even increased importance now that the aircraft tasking and aircraft we have based in the state are predominantly air-to-ground aircraft. We only have three bombing ranges. They're all focused in the southeast of Fairbanks and again, they were created during the Second World War.

You have to also look at how far can your aircraft travel to train. And that's a—those are varying distances depending on the type of aircraft because each aircraft carries a different internal fuel capacity. What I've shown here—for example—the F-15C models that are out at Elmendorf, this green area is the range that they can go out to a Military Operating Area, do some training and return back home to Elmendorf with a safe level of fuel. The other aircraft on the chart up here, the F-15E Strike Eagle, the OA-10, and the F-16C are those air-to-ground aircraft. They all, on a routine basis, need to go to the bombing ranges. So again, the regions that they can train, the locations of the bombing range drive—also where they can also get their Military Operating Areas training done.

There are other agencies, in this instance the Federal Aviation Administration has infrastructure. In this case, it's the highways in the sky, the jet route or excuse me, the Victor routes that run below 18,000 feet. These are arrayed throughout the state and provide transit mechanisms for both civil aviation, as well as military aviation, to move about the state. The location of these is critical in terms of planning for Military Operating Areas. In the instance in 1976, when the original MOAs were created here, depicted in green, notice that they were located away from those highways in the sky to the extent possible. And the idea here is to avoid interference between the transit structure and then the maneuvering structure of the Military Operating Areas.

Temporary Military Operating Areas have also been used by the Air Force for a very long time. Throughout the states—this state, rather, in the conduct of major flying exercises. The areas depicted here in blue are temporary airspace we've used in this region of the state to do exercises in the past. You'll note that those are also located away from the airway structure, again, to minimize interference.

The proposal itself starts with the modification of five existing permanent MOAs. I'll start in the southwest portion of the state and work in a clockwise fashion to the eastern interior of the state. Naknek airspace here, Naknek 1 and Naknek 2, is an airspace nearby to King Salmon Air Force Station. For decades, the Air Force maintained alert aircraft at King Salmon. Again, in that air defense posture that we've had for a very long time. Well, those aircraft were moved back to Elmendorf, in Anchorage, in the past year. What it's done, is it's dropped the use of—the number of aircraft that we used in Naknek down quite a bit. However, Elmendorf routinely flies out to Naknek and does routine training with non-alert aircraft. So what's happened here is a reduction in hour use is all that needs be done with this airspace. It's a ten hour a day operation now, our proposal is to cut it back 50% to a five hour a day operation.

Stony airspace here, Stony A and Stony B, is a very valuable airspace to the Air Force because at the present time, it is the only airspace in Alaska that is fully instrumented to electronically track aircraft. We have antennas on the ground that track aircraft that carry telemetry pods on their wing. These pods broadcast the position of the aircraft, its altitude, heading and airspeed and it's all beamed off a satellite back down to Elmendorf and saved on a video tape. The crews come back from flying, go into the theater, and sit down and they review the video tape. And it gives them a perspective they cannot get in other airspaces lacking this tracking system. You can see the whole air battle, from God's eye view from above. You can go into the cockpit of any one aircraft. On the side, it will broadcast all the parameters, real-time on air speed, altitude, heading. And so the bottom line is, it accentuates learning for the pilots. They are learning the correct lessons and getting more training for the tax dollar. The next airspace is Galena airspace, here. Galena Air Force Station is located to the northwest of that airspace. Alert aircraft were also pulled back in the last year,

back from Galena to Elmendorf. However, Elmendorf aircraft do not normally, routinely—routinely access or need to access Galena air—MOA airspace, and so as such, the use there has really dropped down quite dramatically. The proposal here it to make this a "notice to airmen only" system or airspace. What that would mean, is the Air Force would activate the airspace strictly for selected exercises. On occasion, both from Elmendorf out to King Salmon and Elmendorf out to Galena, we'll fly out on alert aircraft and base them there for a few days to make sure that the runway and support facilities there can handle a change, if, for whatever reason, the world situation were to change. Once the exercise is over, the aircraft fly back to Elmendorf and the airspaces are—that airspace would be closed.

The last airspace is Yukon 1, here in the interior. This is an administrative item in that the floor of Yukon 1 is the surface. The Air Force doesn't need to train at the surface. In fact, Yukon 1 to the north is 100 feet AGL floor. Our proposal here is to raise the floor in Yukon 1 to match 2 at 100 feet above ground level.

The second component of the proposal, convert existing temporary MOAs to permanent MOAs. The areas shown here in blue, I'll talk about in three regions. This region here, the middle region here, and then the southern region here. The region to the north and east provides a suitably sized airspace that Colonel Hassan talked about earlier to conduct major flying exercises. Attempting to conduct major flying exercises, restricted to permanent airspace, would result in aircraft being compressed in together too close for the scenarios that we are trying to replicate. For example, Desert Storm, those type of scenarios are not very well done if we try to compress yourselves too much. Again, this allows us to set it up correctly to get the right type of learning. Additionally day-to-day, all our training is confined to this area here and by being able to access these other outlying areas, what we'll be able to do is disperse our activity and also be able to deal with the weather that often times is a problem for the Air Force in the winter time.

The southern area here, Fox, is important—actually critical to the Air Force, in that, it is the airspace—I showed—I showed you earlier that we had circles around Eielson and Elmendorf reflecting how far the aircraft could travel to train. This area is the only area in the state where aircraft can—from both Eielson and Elmendorf meet

to do training. What kind of training would they do? Two types and they're critical in terms of the building block approach that the Air Force uses to train its pilots. Starting from simple one-on-one and building up to the major flying exercises.

The first type is what we call dissimilar air combat training. That is where one type of aircraft fights against another. One of the drawbacks we have today, because we can't jointly meet in an area between Eielson and Elmendorf is that the Elmendorf aircraft tend to have to fly against themselves. I.e., F-15 versus F-15 and the same thing with the Eielson F-16's, they have to train against themselves. That's not—that's not what we would like to do. Because in order to be a more seasoned pilot, to be able to deal with combat situations, you've got to train against other types of aircraft. So again, our goal is to be able to meet in this airspace and train against each other.

What else would we do with the airspace? One of the other things we might need to do is also train with other aircraft. So that we learn what their strengths and weaknesses are. A key part of this is learning how to coordinate missions together, learning what are the planning factors they use to be successful. Learning how their aircraft operate, as well as what their strengths and weaknesses are. We want to do that in peace-time versus in actual combat.

The middle area, here, is what we call the connecting Military Operating Areas. These airspaces, we hope, will correct a deficiency that unduly hampers our ability to realistically train. At the present time, aircraft train in that permanent airspace created in 1976, and here, for example, is Yukon 1. However, the aircraft with the intention of going on to one of those three bombing ranges, when they reach the southern border of Yukon 1, the aircraft are no longer able to proceed to the bombing range. They have to climb up, slow down, talk to the FAA, get permission to transit over to the bombing range and once they get to the bombing range, they get back into the scenario and they go deliver their ordnance on the target. What it ends up doing is creating a lot of artificial training. A lot of negative training. Because imagine if you will, in an actual combat situation as you approach the target, that you climb up and expose yourself to enemy fire. That's not the way we want to train our pilots. This would correct that in allowing the aircraft to transit through to the bombing range.

Again, in a subsonic fashion, these are not maneuvering airspaces (UNINTELLIGIBLE) depicted Buffalo, Birch and Eielson. These are airspaces that are too small laterally, as well as vertically. A lot of these airspaces are just a few thousand foot in depth, are not sufficient to maneuver safely. So our intent here is strictly to deal with transit into the range and out.

Create two new permanent MOAs. They're here and they're adjacent to the Eielson Air Force Base, area. The first one, Falcon here on the top and then Clear Creek MOA here is the second. The Falcon MOA will serve to allow aircraft to transit from Yukon 1 through the Falcon MOA to reach the Air Force Base, Eielson. The purpose of that is so that airfield attacks can be conducted on the base. During exercises, the Air Force doesn't just train pilots, we train the whole unit. Everyone on the base. That includes the civil engineers who practice repairing runways, the medical people practice handling medical casualties, and the maintenance people also handle aircraft battle damage and just turning the aircraft in a kind of a combat scenario. And so this provides realism to what we're trying to train. Again, we deploy as units.

The second airspace, Clear Creek, provides access from Yukon 1 into the Blair Lakes Range from the northeast quadrant. Blair Lakes is a unique range of the three, in that there's two categories of bombing ranges. The first type is the controlled range, which Blair Lakes is. And I kind of consider this—we consider this kind of a beginners' range. It has sort of a racetrack pattern. Our young guys get in there and they practice just getting into a pattern. The big thing is practicing getting on parameters and dropping the bombs accurately. It is not a tactical situation. Whereas, the other bombing areas, Oklahoma Range and Stewart Creek Range up here, these are tactical bombing ranges. The purpose of this is for it to be a more flexible and dynamic bombing area, in that aircraft can come in from different directions, attack targets in different fashion, be flexible to deal with the threat arrays that we also put on the bombing ranges so that it replicates closer the simulated combat situations they may be exposed to. So again, a unique kind of bombing range there.

The fourth component, authorized supersonic operations in five of the Military Operating Areas. In the proposal, we analyze Fox, Yukon 1, 3, 4 and 5 for supersonic operations at or above—excuse me, above 5,000 feet above ground level.

When we do supersonic operations in the Air Force, they're normally done very high, 30, 40,000 feet. The reason being is, the advantages of going supersonic are accentuated by going high and fast. When you're in the—in an aircraft that has offensive air-to-air missiles, the higher and faster you go, the further those missiles, and faster those missiles can travel. If you're being targeted by another aircraft, an adversary aircraft, who has similar capability of shooting air-to-air missiles at you, the aircraft that is higher and faster will tend to have the best advantage.

Additionally, if you're high and fast and your situation deteriorates to a point where you think you might end up being defensive, it's easier for you to leave a fight and get away and separate at those types of speeds. So more times than not, you're very high.

Conduct joint and combined training. Joint training is the training the Air Force does with its sister services, the Army, Navy, and Marine aviation components. Whereas, the combined training is the training we do with our allies. For example, we do a lot of training with the Canadian and British Air Forces, as well as the Americans—the U.S. Air Force goes to Britain and Canada and does joint—excuse me, combined training overseas. This training has been done for a long time, over a decade, and the investment we have made in terms of going to exercises, has paid off—paid huge dividends to us. For example, the Desert Storm conflict. The coalition Air Force was formed very quickly, trained together real quick, and when asked to execute the air campaign, they did it in a very effective manner. It's our belief that that's the wave of the future and that we need to continue to invest in our pilots in this type of training.

The last component is to conduct up to six major exercises per year. We are already authorized to do six per year. We have, in the past, done anywhere from three to four exercises per year with four planned for next year. Again, these are exercises that we—that are conducted in other places around the world in the Air Force. And again, it's an investment in our pilots to make sure they will survive in actual combat. We learned the hard way in Viet Nam that doing simple one-on-one and two-on-twins is not sufficient to prepare a pilot for what he can expect in a modern aerial warfare. So again, investment in terms of the way we see aerial combat in the future.

As we went around the state last year, doing the scoping meetings, reasonable alternatives or alternatives were offered to us and we accessed them. And some reasonable alternatives were derived. The first one, Alternative A, looked at the elimination of Clear Creek MOA, which was just south of the Falcon MOA and again aligned up against the northeast corner of the Blair Lakes Range. Because of the unique characteristics of the controlled range at Blair Lakes, it's determined that we need to take a look at the need for access into the bombing range, not just from the northeast, because we have other accesses in the bombing range in the proposed action. So again, that's been looked at, being looked at, and been analyzed in the document with a proposed action.

Another alternative, Alternative B, looks at substituting Yukon 5 up here, and Yukon 4 here, substituting the Tanana MOA here bordering again here on the southern border of Yukon 3, the southeastern border of Buffalo and then the eastern border of Fox. This would be a maneuvering airspace as opposed to a transition airspace like the connecting MOAs I talked about earlier. This would be where military aircraft would actually engage each other. Because again, these were also in the proposed actions, maneuvering air spaces. Additionally, if this alternative were selected, the new airspace involved would include Falcon, Clear Creek and Tanana MOAs.

Tanana is also being—has been assessed for supersonic operations because, again, it was substitution for airspace in the proposed action that has been assessed for supersonic ops.

During the scoping phase, the following list here were identified issues. The number 1 issue identified around the state was the airspace management and aviation safety area. However, wildlife, recreation and subsistence also received a sizeable number of comments.

I now turn it back over to Colonel Hassan.

COL HASSAN:

Okay, now let's talk about what we found. In order to do that, and help you with the document itself, I want to just define a couple of terms that you'll see used in the document itself.

The first one is cumulative impacts. Cumulative impacts simply means there are a lot of activities that go on in and near these MOAs. And when we talk about impacts that we find, or potential impacts that occur because of our flying activity, it's the sum of all the things that go on within that airspace. And so it's cumulative, meaning just the addition of all the different activities that happen and those are the impacts you'll see in the document itself.

Secondly, we started with a baseline. The baseline is how we fly in Alaska today and then looked at what kind of impacts we would have in the various categories. Now there are standard methodologies out there that you could use to derive impacts. The most mature kind of way—system that you can use is the effects of noise. There are lots of studies that have been done on the effects of noise, they're fairly well accepted throughout the scientific and academic community. And you can basically plug in a lot of here's a number of aircraft you have, here is how often they fly, here's how high they fly, and you can derive here's what you can expect to hear.

However, in some of the other areas, like recreation, wildlife and subsistence, there's not a lot of set formulas or lots of studies out there that exist. So what we've done is, in consultation with other federal and state agencies, as well as the academic community and peer review of experts in the fields, the various fields out there, we developed methodologies that we feel are fairly conservative in predicting potential impacts in the areas of wildlife, subsistence and recreation.

You'll also find in the document the definition of impacts themselves, Level I, II and III. Level I impacts are basically, there have been none observed in the past because of activities nor do we expect that any change or any continuance of those kinds of activities would have any impact in the future.

A Level II impact is something that's associated, in most cases, with a seasonal impact. For example, a lot of flying—a lot more flying occurs in certain areas of the state in the summer months. A large majority of recreation activities occur in the state in the summer months. So that you may find a Level II impact, meaning there is some effect because of our flying in those months, as opposed to say, January or February for a similar activity.

Now a Level III impact is one that would have a significant or adverse—

significant adverse, as we call it, impact. And that is something that if our activities were to continue over time, they may permanently affect or change conditions that exist today. Of all of the categories that we listed earlier, Major Siter just talked about, we found potentially Level II and Level III impacts in all of these areas.

So what I'd like to do is have Mr. Ham go through this particular area, as an example, to show you the kinds of impacts that we predict potentially may occur.

BILL HAM:

In the area of airspace management, it was recognized by the team that there's a high volume of civil air traffic, non-participating traffic that routinely transitions along the Richardson Highways and on the Alaska Highway. Higher volume in the summer, you get into the edge of the Fairbanks control area, and because of the Air Force proposal to use these transition MOAs and create traffic flows that would generally be 90 degrees to the majority of the civil air traffic, particularly in this area here and because most of that traffic is VFR, not on airways, they were assessed as a potential for a Level II impact just for that potential interaction with the civil air traffic.

Also in the further (UNINTELLIGIBLE) over here, the Yukon 3, and particularly the southern half of the Yukon 4 area, because of a couple key rec areas, a lot of potential for pop-up traffic that the Air Force could encounter. A lot of undocumented landing locations. Also in the summer months when the higher volume of traffic is out there around Fortymile and Yukon-Charley, it was also assessed at a potential for a Level II.

One example on the Alternative B, which included the Tanana MOA down here to the southeast of Delta Junction and the Buffalo MOA, it exhibits the same kind of problems that you would have in your connecting MOAs, in this area, the volume of traffic and further down here along the Alaska Highway. But also, now it's outside of the range, is a special use airspace advisory system, you don't have that available to you. Also, it would be a maneuvering MOA which would be a lot of potential for more aggressive activity. Tanana MOA versus just an aircraft transitioning to or from the range, straightening through as in the transition MOAs in this area.

And also, it would effectively close off three Victor airways. V-444 coming

from the southeast, 481 and 515 due to the potential for lower floors in that MOA would close off all IFR operations in that area. It was assessed at a Level III.

The analysis showed that, potentially, all wildlife species could be impacted at least a Level II. The low altitude aircraft noise could potentially produce some minor startle effects or agitation in animals.

There were three particular species that were assessed for a potential for a Level III impact, a more severe impact. In the caribou, it was the Delta caribou herd. It's a herd that's been in decline for various reasons over the years. It has a high hunting value--economic value. And the potential for a Level III impact during the critical calving season. This is a winter range or a winter use area that's shown and calving areas would potentially be a much smaller subset and this would be in the northern part of the Fox MOA, down here in the Eielson and even a little bit over here in the range area and up into the Birch MOA. A potential for a Level III impact during that May to early summer time frame for caribou calving.

In the bird species, the trumpeter swan, you've got a high concentration of trumpeter swans in the state of Alaska. They're a relatively rare bird. And the team also recognized that in three nesting areas, one being over here in the Buffalo MOA, just to the southeast of Delta Junction, during those nesting times, in the April/May time frame and even down here a little bit further, down along the Gulkana, and over into the Susitna MOA, which is a long way from here, potential for Level III impacts during that critical nesting season for the trumpeter swans. Dall sheep was the third species and there's two particular herds. One herd here, right north of the Alaska Range, and the other herd in what's called Tanana Hills area up here in kind of the four corners area of the Yukon MOAs. Again, an animal that has a high economic value, both in subsistence and in sport hunting. Generally poor habitat for the herd in this area. Especially in this area, north of this area and a potential during the lambing season, potential for Level III adverse impacts to the Dall sheep population.

Two more slides here, one in recreational. None in the immediate area here were identified around for any of the recreational facilities right around Delta Junction. But potential for Level III's were identified over in the Fortymile area and the Yukon-Charley area under the Yukon 3 and 4 MOAs. A relatively pristine area that hasn't

been exposed to a lot of Air Force traffic. Also down here, along the Denali Highway, several of the southern--the western and the middle forks of the Gulkana River were also identified as a potential for Level III impacts to those recreational resources.

In terms of subsistence activities, your community's just southeast of here. The Dot--Healy Lake and Dot Lake communities are relatively--subsistence lifestyle is important to their ability to survive. And during that fall hunting season was the predominant time that was identified--the August/September time frames and a little bit later. Towards the end of the year, caribou, moose hunting times could have a potential for significant adverse impact on those two communities down in the Buffalo MOA, the Dot--the Healy Lake and Dot Lake areas.

COL HASSAN:

Well, now that we've identified some of the impacts, and there are others that we just basically, as I said, covered this area. We've got to consider how we deal with that and it's a concept called mitigation.

Mitigation is really, simply, a balance. A balance between the necessary training that we've got to do to keep our pilots' readiness up and the fact that we are committed to being good neighbors in Alaska, as well as committed to the environment and trying to forego any potential consequences our actions may have.

Well, we do this today. We've got, in place, an 11th Air Force Noise Sensitive List. And that is a list that's simply compiled of those areas that we have worked with the local public, Native groups, other federal agencies, and come up with areas--for example, the first two weeks of September, we will not conduct any flying exercises during hunting season. We will not conduct any major flying exercises over the Fourth of July two week period. We have avoidance areas that we stay out of. We've got areas that, for example, up around in the Circle Hot Springs, Central area, there's a ten mile exclusion zone, 35,000 feet where we will not conduct supersonic operations. We have known lambing and calving areas that we will avoid during those critical times of the year. The Yukon-Charley River, for example, we've got an agreement with U.S. Fish and Wildlife Service that we'll have a two-mile exclusion zone and a 2,000 foot--2,000 foot floor.

Those are just a few of the things that we have been able to institute in

cooperation with the public, as well as agencies, in order to mitigate any potential impacts that our activities may have. And we hope that we can continue to refine that list as time goes on.

This is just an illustration, for example, of the two-mile exclusion and 2,000 foot overflight region. One of the things that you'll find in the document, is it's referred to that we are analyzing what impact we would have if we flew at 100 feet. There are no aircraft that can fly below 500 feet and in fact, in actuality, if you look at a pilot's training, roughly 20% of his training is done between 500 feet and 5,000. That means the majority of his training was actually accomplished above 5,000 feet. So that in this example, if a pilot were allowed to be flying down at 500 feet, as he transitted toward—if this was the Yukon-Charley River area—he would have to climb to 2,000 feet, at least two miles across the river. And that's how the mitigation is implemented.

So in sum, we are committed to achieving a balance. We have made changes to our proposal from the scoping process. We have added mitigations into our noise sensitive list based on inputs we have received. And the only way that we can continue to do that and refine it is with your participation.

So with that, I will turn the floor back over to Colonel Heupel.

COL HEUPEL:

Thank you, Colonel Hassan.

What I'd like to do at this time, is open it up for comment or questions, if you might have them. What I would ask, if you do, is to come up to the lectern up here. We've got a microphone up there so that we can pick up your comments or any questions you may have. And also if you'd state your name and if it's one like my name, that's a little hard to spell, if you'd spell it for the court reporter, that'll help him out, too. And we'll have you go ahead at that point.

Would anyone like to make a comment?

PAT SCHLICHTING:

My name is Pat Schlichting. Last name is spelled S-C-H-L-I-C-H-T-I-N-G. I'm a resident of Delta Junction. First off, I appreciate this meeting and allowing

us to be involved in this process. I have some—I'm not totally organized. You people have a pretty polished proceeding here, as I'm sure improved with repetition. I'd like to know, this is going beyond this meeting tonight—but in our country, trying to imagine how this proceeding and what it involves, plays into the big picture—you need additional airspace to train. You come to Alaska for that. Have you expanded anywhere else, like in the continental U.S., with other training areas?

COL HEUPEL:

I'm not sure whether anybody's qualified to answer that because Major Siler and Colonel Hassan are strictly part of the 11th Air Force. The Air Force is here in Alaska, and this is for training that's been going on here in Alaska. So I think the answer is, nobody's qualified to answer whether there's been any expansion of training areas or Military Operating Areas elsewhere in the continental U.S.

COL HASSAN:

If I could sir, I would like to clarify one thing. This is not—if you look at the airspace that we have access to today, this is actually—if the proposed action itself is accepted, it's actually less total airspace than we have access to today in the state of Alaska.

PAT SCHLICHTING:

How can that be?

COL HASSAN:

We've got approximate—there are other temporary Military Operations Areas that exist today that are not included as part of this proposal. So that roughly we have access, in terms of square miles, yeah, there's more in different areas. In terms of square miles, we've got access to about 71, 72,000 square miles. And if the proposed action is accepted, it's closer to about 66,000. So we're actually eliminating 6,000 square miles of airspace.

PAT SCHLICHTING:

Would you say you're concentrating air traffic, then?

COL HASSAN:

We can say that—I think it's fair to say that we are dispersing where we fly and how we fly and yes, there will be some adjustments into where the total amount

of flying—the total amount of flying won't change, but as Colonel—Major Siter pointed out, we will not use this airspace as much, and we will not use this air—well, this airspace will probably be similar to what it is today.

PAT SCHLICHTING:

Okay, thank you. I'm most concerned and familiar with the Fox and the Buffalo areas and I have a question. At what altitudes would you be operating in those areas?

MAJ SITER:

The Fox, I'll address that first, that has—in the proposal, a floor of 3,000 feet above the ground. And the Buffalo area, is a 300 foot AGL up to 7,000 feet MSL.

PAT SCHLICHTING:

Repeat that last one?

MAJ SITER:

Three hundred above ground level for Buffalo, with a 7,000 feet mean sea level ceiling at the top.

PAT SCHLICHTING:

AGL and...

MAJ SITER:

Above ground level and mean sea level.

PAT SCHLICHTING:

I'm alarmed at the 300 foot level. That's close. We've got a—I think 250 foot tower out here at the intersection and fifty feet above that...

MAJ SITER:

One of the things about Military Operating Areas, it does not exclude the Air Force from complying with the Federal Aviation Administration restrictions on avoidance of people, cabins, buildings, antenna structures and things like that. Realize also that, remember, we're doing an environmental assessment to a given altitude, realizing that our minimum training altitudes in the state are five thousand—five hundred feet above ground level.

For example, I've been in the F-15 for a long time. I have never trained below 500 feet above ground level.

(background discussion)

PAT SCHLICHTING:

But, but, I'm using that as a reference to altitude.

MAJ SITER:

Right, your concern about obstruction avoidance. Obviously we have to comply with obstruction avoidance just as any other civilian pilot would have, again, complying with the FAA restrictions.

Essentially 500 foot in remote areas. We'd have to avoid cabins, buildings, structures, and of course, in populated areas, those numbers, those altitudes go higher. Okay.

PAT SCHLICHTING:

Say, I want to fly to Anchorage, of a day, civil aircraft usually cross the Alaska Range in one of three places and the place that I would cross it would be Isabel Pass. If I'm not mistaken, that's involved in that area.

MAJ SITER:

Yeah, that's actually a little bit east of Fox MOA over to this direction.

PAT SCHLICHTING:

But that—flying down through Donnelly area and further south, just following the Richardson Highway. I think I'd be in that area.

MAJ SITER:

Right here. This is the Richardson Highway here, just east of the Fox MOA.

We do have other airspace structures. Military training routes that we have looked at. Again, with the FAA, with the agencies, i.e. National Park Service, Bureau of Land Management. Again, to make sure that the routes that we've selected are simply compatible with their uses. Recreation uses. Aviation concerns have also been addressed those.

PAT SCHLICHTING:

How would it work? Say I get up 8 o'clock in the morning and I want to fly to Anchorage. What is the process in avoiding a collision down through my route?

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MAJ SITER:

And you're essentially going to go down the Richardson Highway, through Isabel Pass and down to Anchorage?

PAT SCHLICHTING:

Yeah, right.

MAJ SITER:

What I'm trying to tell you here, is what you would need to do, is obviously, if you're not intending to go through Military Operations Airspace, then you're not in conflict with that structure. And the route you're selecting, that would be the case. However, there are other military structures. For example, the Military Training Route. You'd want to make sure if you were going to fly nearby there, to determine if they've been scheduled. And again, that's through the scheduling agency who controls those military training routes. Which in this case is the Eielson Scheduling Shop, with the wing at Eielson.

COL HEUPEL:

Let's say he was going to cut across part of--of the MOA there instead of following Richardson Highway all the way. Then what does he need to do?

MAJ SITER:

Okay, first instance, if you're below 3,000 feet AGL, you're not in the MOA to start with. If you are above that altitude, what you'd want to do is--again, you're allowed to do that at any time--is to go ahead and see and avoid. Our aircraft are out there, if we're out there operating in that Military Operating Area, we will be looking for you with our airborne radar, as well as we do have radar coverage at higher altitude, okay, out there. And again, we would be primed again, to see and avoid from you. Using both our eyes, as well as our radar systems.

Again, it's a joint use airspace. You're entitled to be out there. This is simply designated areas that we must confine our training to, particularly our maneuvering type of training. So that you know that we might be out there. Again, talking with the Federal Aviation Administration, whether it be Anchorage Center, will give you information whether that particular MOA is hot and may be able to give you information of where aircraft might be located in the area.

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PAT SCHLICHTING:

Okay, thank you.

The Tanana area, that was, I guess an alternative?

MAJ SITER:

Alternative B, sir, yes.

PAT SCHLICHTING:

What are its possibilities? It's an alternative, it's been defined in its area. That involves, you know, more of the road system, more of--you know, we have several air traffic going down the, well basically flying the roads. I'm concerned about conflict between military and--and civil air.

MAJ SITER:

That's one of the reasons why we fully analyze it in equal depth as the proposed action. Again, all the alternatives have been weighed in terms of being analyzed equally. And as you saw from Mr. Ham's briefing, Level III impacts have been identified in that airspace for a variety of reasons which include airspace safety, subsistence, and recreation.

PAT SCHLICHTING:

That brings up another question. In your impact assessment, you make your assessment, who reviews that to say we agree or don't agree with your findings?

COL HASSAN:

You do. Other federal agencies do. All the Department of the Interior agencies do. The FAA does. So we will have multiple input as part of this public hearing process that says, we think--as Colonel Heupel started off, you may say, "I disagree with your assessment that it's Level III because of--or Level II--because of the following reasons. I don't think you took into account 'A', 'B', and 'C'." But we will--as part--you are part of the review process, as well as the other Department of the Interior, etc. So there are a lot of inputs on it. We don't just stand alone.

PAT SCHLICHTING:

Well, when I thought of this question, I disagreed with some of your findings and I thought that two or three of the Level IIs should be rated at Level III. But, any place with caribou, the sheep--if you've been in an area hunting or when their calving,

OTH-014 | it creates quite a disturbance. It's subjective. But I feel it's a Level III.
 (Cont.) | I'm finished for right now.

COL HEUPEL:

Let me just say, we would invite you, if you want to tonight, fine, but perhaps if you care to think about it some more, and—and give us some written comments, specifically if there's any specific areas where you're talking about. Affect on caribou or anything else to give us any more detail that you would like to give us. By all means, give it to us. Just like if there's some areas that you're concerned about conflicts of military and civil traffic. That's what this is all about. Either oral comments or following it up with written comments. That's why we're out here.

PAT SCHLICHTING:

This is going to take a while to digest.

COL HEUPEL:

Yes sir.

PAT SCHLICHTING:

Are the—your impact findings in here?

COL HASSAN:

Yes.

MAJ SITER:

Yes. They're summarized.

PAT SCHLICHTING:

They are.

COL HASSAN:

They're summarized. They are referenced to the big document that's in the library. So if you go in there and you look at an area and you say, "I don't understand this," or "I'd like to read more about it," you'll see a reference right after it. And that refers to the volume and section in the big document. So then, you go to that and read a more detailed analysis.

We just tried to summarize that to get you focused and then you can go find more information.

PAT SCHLICHTING:

And when you refer to the library, is that the public library or the school library?

BRIAN HOEFLER:

The public library.

PAT SCHLICHTING:

The public library, okay.

BRIAN HOEFLER:

Here in town, yes.

PAT SCHLICHTING:

Okay.

COL HASSAN:

And if you have any questions as you're going through that, do not hesitate to call. The phone number is on the forms that are out here, as well as the address to send to.

BILL HAM:

It's on the cover letter.

COL HASSAN:

It's on the cover letter, so if you have questions, you can call and get clarification anytime.

PAT SCHLICHTING:

Okay, thank you.

COL HEUPEL:

Thank you, sir.

BERNARD GOODNO:

My name is Bernard Goodno, that's G-O-O-D-N-O. And I'm a resident of Della Junction.

Okay. In the last year I've been getting pretty politically active. And I've been digging into what the federal government is doing with the U.N. The agreements that they're signing. I have this document here that was signed in 1961 and when they get to the end of this document, they're going to turn our military over to the U.N.

They're in the second phase right now and they're starting to turn military hardware over to the U.N. and stuff, under their treaty, that they don't need to destroy. And that's subverting the United States.

They said this document has been modified 15 different times since it was signed.

In the third phase, U.S. aircraft are going to be turned over to the U.N. I resent what our government is doing. I oppose any expansion of the Air Force up here. Any. And as far as I'm concerned, they can pack up and leave because we're going to end up fighting the Air Force.

Now, I have had a problem with military aircraft up there flying over my house real low. They're not the fighters, they were C-130s. I called Eielson and they says, "Oh, we don't know who it was. We'll find out and we'll get back to you." I never heard a peep. These planes flew at least less than 100 feet over my house and to me that's harassment. A C-130 flying over the house that low will rattle the house.

COL HEUPEL:

Where in relation to the central part of Delta Junction do you live?

BERNARD GOODNO:

I live on the Remington Road which is about seven miles out of town, seven or eight miles. And they say, the planes come up going to land at Greely sometimes fly over the house pretty high. But these planes was flying low. Another thing with a C-130 is they was flying grid patterns. One day they was going north to south, back and forth, they just kept going that way. The next day they was going east to west and back again. And they just move down a little bit, come back. Move down a little bit and go back.

And I called up and asked them why they're doing that. And they said, "We don't know who it is, we don't know what they're doing."

I've been in the military before. I was in the marines, I worked on aircraft. From my understanding of what they was doing, they was either photographing people's property, or they was taking ground penetrating radar to find out what we have.

I resent the military doing it. Over a populated area, they should not be doing it at all. And they try to tell me they don't know who it is. That's B.S. I've

been in the military, the military knows everything that goes on. And when they tell you they're going to get back to you and let you know, they should call back. As far as I'm concerned, that's very dishonest. Something is going on and they're not saying it.

Another thing is the markings on the aircraft. You cannot identify them planes that fly over. That's wrong. If they're flying in the United States, they should be identifiable. If I see a plane come over, there should be some numbers on it so I can tell who that is. Then if I've got a problem I can call and say, "Hey, them numbers was such and such." I don't like unidentified aircraft.

They've got black helicopters that's been flying around. Then you call the military and they say, "We don't have them. They don't exist." And they do exist.

And working with foreign military. I'm against training any foreign pilots. I'm against the United States doing any operations with the U.N. Period. Whatsoever.

Another thing is, the President signed a Presidential Directive 25, in May or June. It gives the U.S. military to the U.N. in case of emergency. That means the U.N. can come into the United States and take over a military base in an emergency. The President has signed it. That is wrong.

I guess that's it for me, thank you.

COL HEUPEL:

Thank you for your comment. Is there anybody else?

PAT SCHLICHTING:

What was your turnout like in Tok?

COL HEUPEL:

I would say we had probably all total, about ten people that were there part of the time or all of the time.

PAT SCHLICHTING:

Thank you.

COL HEUPEL:

We appreciate your coming out and as we've said several times before, we-if you have comments with regard to the proposal, or the alternatives, you've got until the 30th of November.

What I would ask is, the 30th of November, to make sure that your comments can be considered, is that they be sent so that the Air Force will receive them in Anchorage by the 30th of November to make sure that they'll be considered. So that's a fair amount of time and--and we'll be happy to have your comments.

We appreciate you coming out tonight, thank you very much.

The hearing's adjourned.

CERTIFICATION PAGE

I, Diane A. Beaulieu, do certify that this transcript is an accurate record of the proceedings as recorded.

Dated: 10/20/94
 Subscribed and sworn to
 before me this 20th day
 of October, 1994.

Sandra K. D. Beaulieu
 Notary Public
 My Commission Expires: 9-1-97

Diane A. Beaulieu

Addendum:

The Delta Junction tape and transcript for the MOA DEIS hearing were reviewed beginning with the public comments and testimony given by Mr. Pat Schlichting and continuing through to the end of the hearing. Corrections were made accordingly to the electronic (disk) and hard copy versions.

Karen McKibbin

Spectrum Sciences and Software, Inc., November 21, 1994

FORT YUKON REPEAT

1:00 P.M. ON 10/04/94

ALASKA MOAEIS

COL. HEUPEL:

Good afternoon. I'm Col. Jim Heupel and I'm the presiding officer for this hearing. I'm a military trial judge and I'm from the "lower 48" states. We have with us Col. Rich Hassan who is from Elmendorf AFB in Anchorage and he's going to be describing the Environmental Impact Process. We have Maj. Bob Siter who is an F-15 pilot, he's the Chief of Fighter Operations down at Elmendorf at Anchorage and he's going to be talking about some of the issues. He'll talk about some of the things that were raised earlier at scoping. This hearing is about the Alaskan military operating areas and the purpose of the hearing, it's being done under federal statutes, the National Environmental Policy Act, and the purpose of it is to help make sure that we know about environmental impacts that you have knowledge of, that we know what your concerns are and that the decision making process can be a better decision making process because we've got the benefit of your knowledge.

As was indicated, we're tape recording this and it will all be typed up and it will become part of the final Environmental Impact Statement and so for that purpose, if you are going to make a statement we would ask you to come up to the front and be seated here and that will help us pick up what it is that you have to say, so that we can be sure that that's on the record and we have your input. And when you do make a statement, if you'd go ahead and state what your name is, since you all signed in earlier but we don't necessarily know who it is that's making the statement. So if you would do that.

Now the briefing here is going to be or the hearing will be in two parts. We'll have a short presentation from Col. Hassan and from Maj. Siter and also Mr. Bill Ham in the back, who's a civilian contractor. He's with Spectrum Sciences and Software and Bill will present a short briefing to you about this Environmental Impact Statement, the process, what's involved and then we want to get your input. If you have some questions you want to ask to clarify what it is that's been presented, then

that's fine, too and if we can answer the questions, we'll do our best to do that.

Let me just say that as a judge, a trial judge from the "lower 48" states, I don't know anything about this project other than what I've heard at earlier briefings we've given. These three people are really the experts on the proposal, but they're not the decision maker either. So we're here to make the presentation to you and to hear what you have to say. With that, let me turn it over to Col. Hassan.

COL. HASSAN:

Thanks. Let me start with . . . I know Barry and Steve are fairly familiar with what this Environmental Impact Statement process is, so let me just take a minute and go through what it . . . you know, what does this really mean. The Air Force puts together a proposal and it says we've got to do training and so where we need to do our training is dependent on where we can get access to airspace. So we put a proposal together and we come out to the public and we visited 15 locations up in this area. We were in Arctic Village, in Venetie, Fort Yukon and Chalkyitsik. We were at Circle Hot Springs and in Fairbanks and Eagle. And down further south. We came out and we said here's the proposal. This is what we'd like to do. Now, in this particular area, the proposal that we put forward doesn't really change much of what we do today, which is, we fly at fairly high altitudes, occasionally, out in this general area here. But we came out and we said, this is what we do, so we'd like folks to understand what we do and how we do it. We got several comments from individuals. One was on . . . you know, we're concerned about does that affect the caribou, does it affect the moose, does it affect the raptors, the Peregrine falcons, etc. So in this study that we did after this last year, so we were here this time last fall, then we did a study for a year based on these inputs that we got. Now were back and we say okay, here's what we found. And that's what these little pamphlets are and then Barry has a full volume. I mean it's a fairly detailed thing. It's 600 pages long. But we tried to put something together that was shorter so folks could have a chance to look at it. And we're here to collect the comments of what you have about, you know, what we said. What we found. But basically, we found that in terms of the, say the large hoofed animals, the caribou, the moose, the higher it is you fly, and in this area we propose not to fly below 3,000 feet so that planes that would be allowed to come into

this area would fly 3,000 feet or higher. But the studies that we've done have found that the impact or the potential startle effect on animals varies greatly, with (UNINTELLIGIBLE) about 3,000 feet it does not, from everything we've found, seem to have a negative impact on the animals. Now that's the basic conclusion that we bring back to you.

Now in other parts of the state, down here where our bombing ranges are, and Major Siter will describe that to you, we do fly low. And so, we'll talk about how we work around that later on in the proposal, so . . . in this presentation.

So in essence, we're talking about an Environmental Impact Statement that has parts to it. The first part is, we tell you about what it is we'd like to do. The second part is, we studied. The third part is, we now collect comments on our study and then next year we will make a decision, based on whether there's any more comments in or whether folk have, you know, a lot of disagreement with what we did. So in essence, that's what we're here about. So, what I'd like to do, is ask Major Siter to come up and just tell you a little bit about the proposal itself.

MAJ. SITER:

Thank you, sir.

Our training in the state has changed dramatically over the last couple of years. The training that we predominantly did in the state, for literally for several decades, was air defense of the State of Alaska. And most of the training that we did to make sure that we were ready to defend our airspace, was what we call air-to-air training. And air-to-air training is where another aircraft flies out and essentially deals with other aircraft. Over the last few years, we've brought aircraft into the state that do a different type of task. And that's air-to-ground and that's where aircraft flies with the intention of dropping a bomb on a ground target. And so, the focus of our training has become more air-to-ground, those type of aircraft. And the bombing ranges we have in Alaska are located . . . here's Fairbanks right here and Anchorage being down here. All the bombing ranges are located in the immediate southeast Fairbanks area.

Okay, sufficient changes have occurred. But when you look at how do you make your pilots ready and have them sure that they're ready to deploy and overseas

and do the different missions, now. These air-to-ground missions. You have to look at the airspace that you have. Okay. Look at what changes you need to make to make sure that you are ready to do that new tasking. And so that's what we've attempted to do. We've looked at the airspace in Alaska and tried to figure out what airspaces will let us do the missions that we need to do.

Well, when we started looking at where we might be able to fly, we started with our air bases. The first being the Elmendorf Air Force Base down in Anchorage and Fairbanks, excuse me, Eielson Air Force Base in the Fairbanks area. Those air bases have been around since the Second World War. The three bombing ranges I talked about here, depicted in red, were also created during the Second World War.

Additionally, there are a lot of other aviation structures, if you will, highways in the sky, that go between these airspaces and they're throughout all of Alaska and all of the United States. And they were created a long time ago. Back in the 1930s and 1940s. Well, their position was real important in that when these military operating areas which are designated boxes of airspace, they were created to confine the military to specific areas in the state to fly. Because prior to that, the military could fly anywhere it wanted. Not in, again, these military operating areas. They could fly anywhere. So, day-to-day, no one would ever know where the military were training. One day it would be one place, another day it would somewhere else. And so from an aviation safety standpoint, the Federal Aviation Administration said, "Now, we've got to confine the military to prescribed areas so that others will know where they are." And these boxes in green were created in 1976. Okay.

Additionally, temporary military operating areas were also created in 1976. And they were used throughout the states for exercises. And the purpose of this, and again, they're depicted here in blue, is they're used to add to the green charted airspaces on aviation maps so that you can do exercises. Because part of our training is not just one airplane going against another airplane or two against two. Okay. That's not what real aerial combat is. We do exercises because when we've gotten in conflicts in the past, and in the near past we have, we needed to copy, if you will, how that aerial combat occurred. For example, in Desert Storm over in Iraq, these training exercises give our pilots the ability to learn in peace time what combat is like. In the

Viet Nam war our pilots only did one-on-one type of aircraft exercises. Two-on-two. And they were very good at that. But then they got to Viet Nam and the situations that they got involved with were too complicated for them and a lot of them got shot down. And so we learned the hard way that we needed to create exercises so that they would learn what it was like to be in a combat situation. So this airspace allows us to do those type of scenarios. And we've been doing those for some time. Both in the United States and in Alaska, as well as in other countries of the world. Again, working together. So that's kind of a history.

And another thing to consider here, too, is when the aircraft were positioned at Elmendorf and Eielson, these airplanes only have so much gas in their fuel tanks. For example, the F-15 forces out of Elmendorf can fly outwards to this area here. Okay. Whereas, the aircraft out of Eielson can fly the area pretty much surrounded here. This airspace structure up here. Okay. The air-to-ground aircraft have got to be able to reach the bombing ranges, so when it trains in a military operating area, its goal is to end up at one of the bombing ranges. So, for example, an aircraft might take off out of Eielson, go out to these airspaces here, fly around with the intention of getting to the bombing ranges, practice by putting the bomb on a target and then flying back out into these military operating areas. So what we've been trying to do here is make our training more efficient. Again, these are airspaces we use today. We're just trying to make them more efficient for our training.

When we were out here and scoping last year, the public, as well as the state and federal agencies, identified a number of issues that were of concern. The four major areas were aviation safety, subsistence, recreation and wildlife. Again, those four received the most comments.

Sir, I'll go ahead and turn it back over to you.

COL. HASSAN:

I think the most important thing from our perspective is, that in the past, and I was fortunate to have an opportunity to talk on the radio this morning, in the past, as the Major said, the Air Force basically was allowed to fly most anywhere in the state. What we are trying to do is change how we used to do business and establish a good relationship, as Steve talked about, by going out, explaining what it is that

we'd like to do, listening to the concerns, starting a dialog. We have been able to study some areas, some places where herds have historically been, that you have experienced. That was factored into this study. We just didn't take what the U.S. Fish & Wildlife said. We didn't just take what the Alaska Department of Fish & Game said. We listened to what the local villages had to say in terms of . . . we actually had maps with us last year, pointed out where we thought herds' migrations took place, we were given information on where that was and that was factored in this study. So the dialog is there.

Additionally, one of the ideas that came up was said, "Can you look at flying down in this area?" And we did that. We added an alternative to our proposal where we eliminate Yukon 5 and Yukon 4 and add a new airspace called Tanana down here. So that instead of having this, we would have this. So that, as Major Siter said, we still had an area big enough to do our exercises in. This alternative came out of listening to folks up here. So this was added to our proposal. So in this Environmental Impact Statement, this is another alternative that's being considered as part of a way to satisfy our training needs, but balance the effect that we may have on the environment.

So, specifically up in this area . . . again, I would like to just ask Mr. Ham, we've looked at . . . basically, do you want to talk about where the subsistence and wildlife was pointed out.

BILL HAM:

Yeah, I'll talk about it, sir.

We looked . . . from input from you all, we looked at the general subsistence areas of what was defined to us when we had the meetings a year ago. It seemed to be, that from what we gathered, the information we gathered, that the moose have the most wide ranging area. From down around Beaver here, all the way up to the river, through Fort Yukon, up the Porcupine, this general area down here from Beaver to Birch Creek, Fort Yukon area, also down the drainages of the Birch Creek and down the Yukon River down to about Circle and even down into the Black River, down to about the northern part of the Yukon 4. This seemed to be the area that was most widely identified for that particular species.

The waterfowl. A lot of the same areas for the waterfowl, but not quite so far up the Porcupine. And what we have noted on here is actually one of the Peregrine falcon areas that was identified from previous information.

The bears were generally a lesser species, but some of the same trends, up to about Chalkyitsik area here for the bears. Down the Yukon, the Birch Creek and down to about Beaver.

And the caribou areas that were identified to us were generally south of the Birch Creek here. Even though they're wide-ranging through the area, the main subsistence area that was identified was generally in this area here, south of the Birch Creek community.

Also from what we understand, that the main trapping for the smaller animals, the martens, the lynx and those species, generally occurs north of the Chalkyitsik area, the Black River area here. And those are the areas that were identified.

With this high MOA here, above 3,000 feet, as Colonel Hassan told you earlier, that there have not been any identified impacts on either the smaller animals or the larger animals at those higher altitudes. None that we've been able to define today. Sir?

QUESTION #1:

Yeah. Where did you get all this information (UNINTELLIGIBLE).

BILL HAM:

It was gathered up here, with discussions, a year ago, sir. And it's come out of other reports, plus local information.

QUESTION #2:

(UNINTELLIGIBLE) report says that (UNINTELLIGIBLE).

COL. HASSAN:

There have been studies done . . .

QUESTION #3:

What studies?

COL. HASSAN:

Excuse me?

QUESTION #4:

What studies?

COL. HASSAN:

There have been studies done that we have funded with, and they are referenced in the document, where folks have gone out and actually monitored animals as over-flights occurred

QUESTION #5:

(UNINTELLIGIBLE)

COL. HEUPEL:

Can I ask you to hold your questions?

QUESTION #6:

(UNINTELLIGIBLE) We need to ask so that we know.

COL. HEUPEL:

Okay. Would you come up then, by the microphone so that we can get what your comments the questions that you're asking.

COL. HASSAN:

Okay.

QUESTION #7:

I'm just asking a question.

COL. HEUPEL:

The reason I want it is because the questions that you're asking about, it's still important to have as part of the record, because what you're questioning is, has sufficient study been done on it. And that's important to have on the record, so I'd like to hear the questions that you're asking so that people reading the record understand what it is you're asking and that puts in context what Colonel Hassan is saying. It makes it more understandable.

QUESTION #8:

(UNINTELLIGIBLE)

COL. HEUPEL:

For the questions right now, no. I need to be able to hear what it is

QUESTION #9:

(UNINTELLIGIBLE)

COL. HASSAN:

There you go.

QUESTION #10:

That's what I asked. Where did you get these answers? Where did you get this information?

COL. HASSAN:

It's from a variety of sources, sir. We first go to known studies that exist with the Alaska Department of Fish & Game and the U.S. Fish & Wildlife Service. Then we talk to local folks who are out in the bush. We talk to . . . also, we have funded some studies through the University of Alaska where folks have gone out and taken a look at the effects when wildlife are there and the majority of effects that they have found have been that most larger animals, for example, when a plane would go by, may be momentarily startled, they may look up, but the long-term effect is not a problem.

QUESTION #11:

(UNINTELLIGIBLE) I'm going to testify (UNINTELLIGIBLE)

COL. HEUPEL:

That'll be fine.

COL. HASSAN:

One of the things that we also do, after we look at where certain impacts occur, for example, we draw these lines that are on the map here. We have what is called mitigation. And that's where we actually draw "keep out" zones where we will not fly, for example, during critical times of the year. During calving seasons, or lambing seasons or nesting seasons, where we will keep restrictions of how high above these areas we will fly. Recently, from a human standpoint, for the folks that live in the Circle Hot Springs and Central area, we have drawn a 10-mile circle around this area and we have a 35,000 foot ceiling so that we can, in working with the people that live in the general area, if there are specific areas of concern, then we can work around that and do our training so that it does not impact any particular area.

So that's pretty much where we are. We've gone out, we've got some input, we've done a study, we'd like to get some more input that we can go back and study and then next year, about next September would be the time when the Air Force would be looking to make a decision on this proposal.

COL. HEUPEL:

Before I take statements, the gentleman in the blue shirt, I believe you . . . could you move the microphone over to the other side . . . you had a question. Why don't we go ahead and see if we can clarify some of the questions and then we'll take statements.

QUESTION #12:

I've got lots of questions, but I'll just start out with the blocked in sections on the river, the red ones there you have for Peregrine falcon on the Porcupine River. Why doesn't it continue down any further. And also, I don't know if you know or not, but there's also Peregrines that are nesting in the upper part of the Black River which comes into Yukon 5.

COL. HASSAN:

Up here?

QUESTION #13:

Down a little bit further. No, the other direction. Yeah, right in there. There's at least five pairs of Peregrine falcons that are nesting there. And I don't know if you know about them or not, but they need to be of concern. And there's a lot of trappers and like you stated, the larger animals aren't as affected as the smaller animals would be. But there's an awful lot of trapping going on from Fort Yukon all the way straight east to the border.

COL. HASSAN:

This way.

QUESTION #14:

Straight . . . yeah, straight across. In that blue box it's between . . . it's 40 . . . about 40 trappers that are actively trapping in that area all the time. And I know . . . I assume that it's going to have an adverse affect on the amount of game and the amount of time it takes for them to get . . . to trap these certain animals.

Another question I had is, your levels that you have indicated in there, Level I, II and III, where . . . where did those . . . what do they represent?

COL. HASSAN:

Let me . . . we'll talk about . . . you've got several questions there. Let me start with the levels and then we'll go back to the animals.

Level I impact is, for example, when we have been flying in say the Yukon I and Yukon 2 area, we have observations over time so that when we say that we look at a specific, let's say, recreation or a specific species, then Level I is, is that there has been no observed impact and we expect to have no further impact. So a Level I is basically, we have seen no impact and we don't expect to have an impact.

A Level II impact is one that is usually associated as seasonal. For example, again, down in, say the Fortymile area for recreation, the peak recreation season is about the first part of June through September. So that any impact that we would identify, which we have identified some impact on the recreation down there, the impact that you see in July would not be the same that you'd see in February. So that seasonally, usually there's an adverse impact during some season as a Level II.

And then a Level III are those impacts that we've identified that over time, continued jet noise, for example, would have some long-term effect on either a species of animal or that some sort of recreation area would have to be redesignated as a . . . rather than a primitive area, would have to be upgraded to some other kind of class.

QUESTION #15:

And who does these studies? Is it done by the Air Force or is it contracted?

COL. HASSAN:

Usually contracted out. The only studies that the Air Force has done, themselves, has been some noise studies. But all the studies on wildlife, the studies on recreation, you know, the information that we have gotten, comes from peer review throughout the country in terms of folks that have any kind of experience in that. But that is not done by the Air Force.

QUESTION #16:

Okay. In the Yukon 5 and, I suppose, the Yukon 4 area, what . . . have there been any contracted studies done on any of the existing (UNINTELLIGIBLE).

COL. HASSAN:

With the Peregrine falcons here, we have mainly consulted with U.S. Fish & Wildlife, Skip Ambrose, who is out of Fairbanks. He's one of the world, kind of leaders in the Peregrine falcon. We started doing that particular mitigation about three years ago. And this particular one is, we've got a 2,000-foot floor and a two-mile wide "keep out" zone. Now, what we have found, and this is according to Skip, is the Peregrines along this particular part of the river, right now are doing very well. So, it is our observed result that the mitigation that we've put in place seems to be doing well. According to Skip, this is the only place in the country right now that the Peregrines are kind of moving up as opposed to lots of other areas that are still in decline.

So the idea is, is not that we have all the smarts, but with working with folks, we have developed, at least what we find to be fairly a successful balance here between we train here, but we haven't negatively impacted the Peregrines.

QUESTION #17:

What's the decibel level at 2,000 feet? Do you have any idea?

COL. HASSAN:

Bill, do you have that?

BILL HAM:

It would be typically, approximately 85 decibels for a typical jet aircraft.

QUESTION #18:

F-16?

BILL HAM:

F-16. F-15.

QUESTION #19:

Those are terribly loud ones?

BILL HAM:

Well, that's the . . . 85 decibels is about . . . that's why 2,000 feet was picked by Skip Ambrose. It was really his suggestion that that was the minimum that he could accept in that area and that's why . . . it seems to be working up there. Getting below 85 decibels seems to be the magic number for most animal species.

That's the number at which they tend to startle. It's what has been identified in all the research that we've done.

QUESTION #20:

Do you know what it is at 3,000 feet?

BILL HAM:

It would decrease . . . at 3,000 feet it would decrease about three or four decibels. You get your biggest payoff in altitude, between the surface and about 2,000 feet in which you get a decrease of about 25 decibels. At 2,000 feet. Of a typical fighter-type aircraft.

QUESTION #21:

Doesn't that affect, I mean, the weather, if it's cold or if there's wind or . . .

BILL HAM:

The weather will . . . humidity and temperature will have some minor deviations on that, but they would probably not change more than one to two decibels over that regime. That does have an effect, yes. I mean there's thousands of different variations, depending on temperature and humidity.

MAJ. SITER:

One of the questions earlier was about the effect that things might be having today. He asked about studies. This area here, as Colonel Hassan has mentioned, we have been using that for several years in terms of for our exercises. Okay. The floor of this area, as a temporary military operating area, again, an uncharted piece of airspace, is 2,000 feet above the ground. In this proposal, we would like to raise the floor. Again, this area being an outlying area away from where the bombing ranges are. The tendency for the aircraft, and I've flown these exercises many times, most of the aircraft when they operate in this area during an exercise, they're flying over 20,000 feet or higher. And it's part of the exercise for aircraft to go a distance and get behind what's called an aerial refueling tanker aircraft. It's kind of a gas truck in the sky and it has a refueling probe that allows aircraft to get behind that aircraft and for them to connect and to transfer fuel. What it allows is fighter aircraft to drive a lot further than it would if they only had to use their own fuel. So the aircraft are orbiting at high altitude here, taking on fuel from other aircraft, those tanker aircraft, they form into

groups a lot of times the orbiting's here well, it's occurring down here, also. And then, on separate times, those packages of groups will go down and go to the bombing range. While other aircraft are down in this area here, also orbiting. They're on the other side of the scenario, of the engagement. They come up and most of the maneuvering, and low altitude flying and the supersonic flights, occur in this area because that's where the two forces will meet. Okay. That's not to say that no aircraft would ever go down to the floor, 3,000 feet above ground, but that would be the lowest they would ever go. And this airspace, if it were to become charted, the military would be able to use it day-to-day. That would be a change. You would see aircraft more frequently.

But if you'll look at page 6, because, again, it's an airspace that's further away, it's a longer distance to go, our pilots will only go here very infrequently. In fact, this airspace will be used little enough that we don't need published hours for it. Every other airspace in this area of the state has actual hours and they're usually like 8:00 in the morning to 6:00 at night. Aircraft could be in these areas. The exception is this airspace here. This airspace, we have to call the FAA and ask for them to open the airspace. They'll ask us how many hours we want to do it. If we're only going to . . . on the average, if you'll notice the chart on page 6, under Yukon 5, it says "Routine", "Less Than One Sortie Per Day". If there's 240 flying days in a year, that means that there shouldn't be more than 240 aircraft for the whole year using that airspace for day-to-day routine training. Okay. And those aircraft that used it for an exercise, as I told you earlier, are going to be very high. They're not going to be at 3,000 feet. They're going to be up 20-odd-thousand feet.

Those of you who have been out here the last three years, it would be interesting in your testimony if you could say if you've seen aircraft out here and what altitudes and whether you've noticed them or not. Because they have been out here for about three years.

COL. HEUPEL:

Sir, you had your hand up a minute ago. Could you come up here so we can get it on the microphone, please.

QUESTION #22:

I spot about an A-10, it scrambled right through the Poker-plain right there. And what's the purpose of that?

COL. HASSAN:

Right up the river?

QUESTION #23:

Yup.

UNIDENTIFIED VOICE:

(UNINTELLIGIBLE)

MAJ. SITER:

The A-10s are doing what they call low altitude navigation training. And again, if they're in the military operating area, then

QUESTION #24:

(UNINTELLIGIBLE)

COL HASSAN:

Did he have a couple more questions? (UNINTELLIGIBLE)

MAJ. HEUPEL:

If he comes back or when he comes back we'll see. Were there any other questions to clarify what's been presented?

You may have some come up and if you do, we can take those, too.

Let me just go to the statement portion and Steve is the First Chief of the Native village of Fort Yukon. Would you like to make a statement first?

STEVE CINNIS:

First of all, I just would like to say I appreciate you folks coming out here and following up on your previous visit.

I do have some concerns about the impact. Basically, I just would like to say that, you know, as Native people out here, we really have a real trust problem with agencies and because of that, I would like to recommend that as far as this research and the impact of this proposal might have on the people in Yukon Flats, I would appreciate it if we could have some means of being directly involved in the research of the impacts of this proposal here. By that I mean, out in our villages we have what

you'd call . . . what are they called . . . community resource . . . resource specialists. Okay. That's funded through the Council Athabaskan Tribal Governments and it would be nice for us, just for our own trust and what-not, to have them involved in being part of the research team or whatever you're going to have out here that's gonna study this impact.

The other thing I would like to suggest to you is that, let this dialog continue. Don't go away from here with the idea that we're rubber stamping this idea and that we're not going to see you guys again. You know, I would like to continue this dialog.

The other thing I want to share with you is that at the Tanana Chiefs' Conference last year, our resolution was introduced by a delegate from Fort Yukon opposing the Yukon M2. That particular section right there. Unfortunately, I think 5, the other part up there, was supposed to have been included in this resolution, but it only addresses No. 2, so I can't . . . you know, I can't very well change this resolution from the way it's stated right now. But it does object to Yukon 2, there. And this resolution, although it was introduced by the delegate from Fort Yukon at the convention, is a consensus, I would say, of the people of the Yukon Flats. You know, when we go to these meetings, we all work as a group, the people from Yukon Flats. Although it's submitted by Fort Yukon, it does represent the Yukon Flats villages.

I think basically that's all I have to say. But I'd like to reemphasize, again, that the impact, the research that you were referring to, and Jonathan questioned, is something that I feel strong about. That we really need to have involvement of the local people in this, in order for us to believe it, I guess. You know. So that's all I have to say. And I thank you for being here.

COL. HEUPEL:

Thank you.

STEVE GINNIS:

And here are the copies of these resolutions. I'll just give them to you.

COL. HEUPEL:

Okay. That would be fine. Thank you.

Let me just say, Colonel Hassan can address part of that, obviously there . .

. . when the Air Force came out here a year ago for what was called the scoping, I wasn't here then, but they came out here, there's been some studies since. But that's part of the reason in having these public hearings, for you to take a look at the studies and to help tell us and to help advise us where the studies are not good enough or if there are problems. If there needs to be more study. If there's areas, we were talking earlier about Peregrine falcons or anything else that hasn't adequately been addressed, obviously, we need your input on that.

As I mentioned last night, the full Environmental Impact Statement is here and there's a public com . . . a formal public comment period is open until the 30th of November, so that people can submit written comments, in addition to the hearing we have here today, can submit written comments, as well. But I understand your request for a dialog and I turn that over to Colonel Hassan.

COL. HASSAN:

Oh, absolutely. I, you know, what we can do, Steve, is I've given you my number, we will get back in touch with you as we go through. I've got your address. I'd like to get in touch with these research . . . resource specialists and we're, you know, that's what this is about, as far as we're concerned. So I appreciate the offer.

COL. HEUPEL:

As I'm thinking about it, too, something you raised last night was concern about that there had been some jets that had flown over Fort Yukon fairly low.

STEVE GINNIS:

That was Barry that . . .

COL. HEUPEL:

I'm sorry. That was Barry that raised that. And I'm wondering if somebody could address that, as far as the 1-800 number.

MAJ. SITER:

Yeah. In the past year, what we've instituted so that we can get input on how well we're doing as far as complying with our airspace requirements, we've put in a 1-800 service that essentially allows anyone in the state to call straight to the Air Force. File a complaint or let us know what's going on. And the idea here is the sooner we can get that information, what we need is the location, the date and the

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time, and that . . . just that alone can get the significant move toward us quickly doing an investigation of it, determining which aircraft it was and what mission they were on and why they were where they were. I.e., we have certain . . . for example, we have tapes on the aircraft, or video tapes that are about 30 minutes long. And if he has the tape on during that segment of the flight, we can look at the video tape and determine the air speed and the altitude that the pilot was flying at. Okay.

The idea again, is to call as soon as you can. We recognize there are times where you're out doing your job, that you don't have a phone nearby and it may take a day or two, but the bottom line is that we want to be good neighbors, but we need your help to make sure our pilots aren't doing something willfully wrong. And we've taken severe measures with pilots who have not . . . we realize people make mistakes. These are fast moving aircraft and they're often times difficult to precisely identify exactly where you are and the planes can accelerate pretty quick. But, if we have a pilot who's doing something willfully wrong, then we would like to deal with that. But we'll need your help to do that, if you would. So again, use the service.

BILL HAM:

You might want to give the number Bob, I don't know if they've got it.

MAJ. SITER:

I don't have it off the top of my head. I believe it's on the sign-in sheets that we have.

CAPT. SANDY TROEBER:

It's 1-800-538-6647.

MAJ. SITER:

And again, that number is answered at the headquarters for all the air operations in Alaska. And that's where the ball starts rolling on an investigation.

COL. HEUPEL:

And we will get back to you. If you call, you'll get an answer.

STEVE GINNIS:

I forgot to mention one other thing. You know, last year when we met up in Chalkyitsik, at which time we developed that resolution to oppose that area there, there's also a concern that was expressed about a letter that somebody had found in a

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meeting that had all the leaders in our region here listed and what type of character they were. You know, whether they were argumentative or if they were a real politician or whatever . . . however, they characterized them. I found that this gentleman here had that person fired. So that's an issue that was brought up that had real concerns about it. We didn't care for somebody to come in out here early tagging us that way. You know, it's just like coming out here and saying, "Well, don't talk to this guy here, you know, he's argumentative. Or this guy over here is too much of a politician." And using that list for that kind of a purpose. I mean, we didn't care for that kind of a dialog of people. So that person has been . . . I don't know, wherever he's at, but

COL. HEUPEL:

If we can wait for just a moment, we need to change the tape.

(END SIDE ONE, TAPE ONE)

(BEGINNING SIDE TWO, TAPE ONE)

COL. HEUPEL:

You had had perhaps some more questions. I'd gone to the gentleman in the back. You had to leave for a moment. Did you have some more questions that

QUESTION #26:

Ah, yeah. Lots.

What does it mean when the Air Force fires somebody? Does that mean they just relocate them or are they out? No more blue uniform?

COL. HASSAN:

Out

QUESTION #27:

Okay. One of the things that, that um . . . I was making some phone calls today, asking a lot of people about different things so I could ask some good questions. I was talking to somebody and they said that the Air Force had a pretty good amount of money for doing this research and a lot of it was for contracting and since Steve was talking about contracting to do different types of research, I was wondering what the possibility is of working with the Air Force and the CATG and a resource specialist for doing some of this research.

COL. HASSAN:

I think we'd have to look into it. I think it's a possibility. Presently, I have access to that . . . I don't have that money. That's the Department of Defense money. In fact, the money's called Legacy. Which you may or may not have heard. All it takes, for example, I've got Skip Ambrose money. Skip gives me a proposal and, you know, we could probably start with Skip. And since you guys know him, he can show you there's just . . . you know, it's just standard forms. You fill out some things, you put a proposal in there that says this is what you're gonna do and then I take that and if I advocate that, if I say yes, this would be useful to our area here, then I forward that to the Department of Defense and they choose to fund it or not.

We have been . . . I will tell you that I have been 100% successful on those that have been put forward.

QUESTION #28:

I don't know if you've seen a copy of this study that was done somewhere on the east coast. I don't remember exactly where it was, but it was in North Carolina it says here, and it was done with decibel levels and black ducks that they have over there. And it said that they had like 30 some odd days of monitoring during . . . when the ducks were laying eggs and that . . . well, I'll just read part of it to you. It said that: At Piney Island we recorded sound events in excess of 80 decibels on 23 of 32 days monitored at an average of 71 times a day. Only two such sound events were recorded at Bell Island during 21 days of monitoring. So there's just a comparison of the two places they monitored and the average sound levels were 63.2 at Piney Island and 46.6 at Bell Island.

What this study is talking about is just the effects of sound and high decibel levels on these birds and it's talking about on Piney Island where 24 of . . . I don't remember exactly how many . . . 24 out of 130 eggs that were laid by these ducks that were tested, were discarded by the females. And on Bell Island, only three of them were thrown out. So there is . . . there's no way you can guarantee if it's noise that's actually doing it. I mean, it could be a million things. But this was kind of a confined area that they were doing this study on and the absence of noise on Bell Island kind of points to the fact that it could be the high impact of noise and I realize we're not going

to be getting 71 jets flying over at 80 decibels, but there is some increase to the lowering of hatched eggs or for waterfowl. And that's one of the concerns that I had and that's probably something we could address if we do get to do research together.

I don't know if you've seen this study. I can make a copy of it.

COL. HASSAN:

I don't know if we have either.

QUESTION #29:

It's done by the National Biological Survey and the Virginia Department of Fish & Game.

BILL HAM:

Sir, if I could get a copy of at least the cover so we can try to track down the document.

COL. HASSAN:

Let me say this, we acknowledge, in our study, that, you know, it is preferable to confine your activity at least away from critical periods. And we have acknowledged that.

Some of the areas that we've already identified down here, for example, sheep lambing, caribou calving, bird nesting. You know, there are critical times of the year that we try to just either avoid or raise and get further away to lessen the noise. And we're sensitive to that. So, again, studies are what we need to continue to do because we don't have all the answers. I'm not telling you here that everything's fine.

QUESTION #30:

And there's not a whole lot of studies that have been done in that.

COL. HASSAN:

And there's not a whole lot of studies that have been done in that area. But in working with guys like Skip, etc., we try to find the folks who know what's going on and do the smart things to be sensitive to that.

QUESTION #31:

Another question. The sonic booms that we hear, is there a certain altitude that they could be at where we won't hear them.

MAJ. SITER:

As Mr. Ham was talking and addressed her question about how the sound ... essentially, sonic boom is a disturbance of the air. And how well it travels, is dependent upon temperature, the humidity, obviously the height that you do it. For example, there are days where you could do a supersonic event at 15,000 feet and the footprint of the sonic boom doesn't reach the ground. Then there are other times you might be up at 20,000 feet, another 5,000 feet higher, and because it's colder that day, the atmosphere temperature was colder and there was more humidity or whatever, that it reaches the ground. There is a lot of variables, I guess is what I'm trying to say. But we have a minimum altitude that we're allowed to do supersonic flight.

He mentioned one area here where we raised the ceiling that people could go supersonic, up to 35,000 feet. Okay. Because again, there was a lot of concern about where aircraft were meeting and how fast they were going and sonic booms reaching the towns. So there was a case where we did mitigation.

And again, this list that we have has 38 different points throughout the state. We didn't start this list with 38 points. Over time, it has evolved to that. For example, the Tanana Chiefs Council asked for some mitigation along what we call the military training route, which is a low altitude training route. It's for navigation and there are none up in this area here, but there are some elsewhere. That all occurred after the routes were devised. And with their consultation, they asked for a higher floor along one of the portions of the route. And it was raised. And so again, ...

COL. HASSAN:

And we also moved one ten miles.

MAJ. SITER:

Yeah. And we've done a lot of things in terms of trying to move our training, to restructure it, to raise floors where we can. But again, we do that in consultation with the people. They come forward either to our 800 number service, dialogues like this, tell us what their needs are, tell us where they think the impact is. We assess our need to train against that potential impact to the environment and we make balance. And these are our ways of trying to find that balance. We're always trying to find it. We know that things do change and that's why we hope that we have a dialog so that we can talk productively and make the change where it's needed.

COL. HASSAN:

In answer to your specific question, as you are well aware, you're obviously a student into scientific stuff. The higher is better. I mean the higher you go and do a supersonic boom, the less chance you are going to get ... what he was trying to say is it's dependent on a lot of different variables as well. But we tend to do supersonic flying at fairly high altitudes, 25, 30,000 feet because that's where it makes sense to do it. There is occasion when you may get a little lower and do it. You know, we've made some mistakes, but in this particular area, for example, the feedback we've gotten from the folks that live in this area is great. You know, they're not hearing them. So the higher, you tend not to hear the sonic booms.

COL. HEUPEL:

I think right now I need to go on and take some statements because we've only got about an hour left before we've got to catch an airplane and I know that we've got some indication that some people do want to make some statements and then if we have more time after the statements, we can continue with any other questions.

But ah, sir, I believe you indicated you wanted to make a statement. If you would come up here. And could you just state your name.

JONATHAN SOLOMAN:

My name is Jonathan Soloman. I'm the Second Chief of the Native village of Fort Yukon. All I want to say is that I don't know how these impact statements are put together and who you speak to on the ground. I just come back last month from the International Porcupine/Caribou Commission Hearing in Dawson and I serve on that Commission. And all the people on the Canadian side are complaining about aircraft disturbing their caribou on their side. And we hear the same thing in Arctic village and in Fort Yukon and I think (UNINTELLIGIBLE). Last winter, it was December moose season here, we were up the river here and we were trying to get this moose out of the island and I don't know what flight it was, a Polar flight or whatever it was, and they fly pretty high up, twice it happened last winter, as you follow the moose it flew right back at you. It flew right by you. Because of the aircraft going over above. That moose is supposed to run the other way, but because

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of the noise from the aircraft, it ran past (UNINTELLIGIBLE) following it. I don't know where you get all this information that it don't disturb animals at a certain height. If it does that to a moose, what does it do to a marten or a lynx or, you know, it must blow them all out of the country.

And we're all subsistence users in this country and that's how we live off the land. And I think that I wouldn't support any activity on 4 and 5. You know, I would maybe support the one you were talking about moving further south where you boys been doing them at Eielson and Ft. Wainwright. On top of that, I don't see why we need this thing. Who in the hell are we getting ready to fight? You know we don't have the Russians anymore. And if we have Southeast Asia, then you should be training down in Florida. And if we have Saudi Arabia, you should be training down in Nevada, not up here in Alaska. Course we have no concerns in weather-wise or ground-wise to all these other places that we expect to be attacked from.

COL. HEUPEL:

Thank you, sir.

Who else has indicated that they would like to make a statement or who else wants to make a statement? Please come on up, sir.

DAVID JAMES

My name is David James, Environmental Coordinator. The previous comments made by Chief Steven Ginnis on the trust of the Air Force, well, that goes back to '55 when you guys came in and contaminated our land, took our highest ground, and put in a radar system that's had a high radioactive signal that goes out 10 miles and the next thing we know, we got people dying of cancer. Then you guys got the Burnt Mountain up there, came and put a Strodium 90 up there, this high radioactive device up there. There's six of them sitting up there without no protection. Now you guys are coming in here wanting our airspace right over our trapping area. Main prime trapping area. And what else you guys want. And like Jonathan said, too, you guys don't need to train up here. Go someplace else. Go out in the ocean where you got miles of open space. Go up to the North Pole or wherever you want. Go. Do your refueling up there. And how far does this plane go from here up to this area. An F-15.

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It's only a 5 minute, 10 minute flight. It ain't gonna run out of gas in a 5, 10 minute flight. Our specialist here, he should be in on the process. On the environmental impact. 'Cause we have our own people trained here now. And we're getting our own money from the government. The same government as you guys getting yours.

COL. HEUPEL:

Thank you very much, sir. Is there anyone else that would like to make a statement? Please come on up, sir.

CRAIG FLEENER:

Craig Fleener, CATG. I just want to make a comment, since it's just gonna be on the record, expressing concern for waterfowl and some other birds. I know you've already mentioned that you're addressing those, but I just want to make sure that I put on the record pintail and canvasback. They're not endangered or threatened, but they're declining and this is a big breeding area for pintails and canvasback ducks. Trumpeter swan. They're not declining either, actually, but they are... there's a few in this area and they're easily disturbed by low flying aircraft. And loons are declining and there's not too many places where there's a lot of loons and there are a lot here and they're also easily disturbed. Peregrine falcons. Like you said, they're on the rise, but they are an endangered species and we need to be concerned about those.

I wanted to say that I was concerned about moose, also. I don't know if you have any operations in March or after winter's over, but moose are weak after the winter's over and if you guys do a lot of flying when it's more towards the end of winter and the moose are not at their strongest, they're easier to be taken down by wolves and other game and low flying aircraft just make that easier because it confuses the animals and sends them running where they wouldn't normally run.

Oh, one more thing. I heard that there was a fire caused by, I guess that they said it was done by a flare over in Charley National Wildlife Refuge and I wanted to stress my concern about flares causing fire because this is one of the biggest places for fires. And the most fires in the state, I think, happen between here and Chalkyitsik and even though they're not necessarily gigantic fires, there are an awful lot of fires and if there's anymore possibility of fires happening because of flares being... I don't know if you shoot flares off up there or not, but if you do, it might cause a fire.

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COL. HASSAN:

Let me just respond to that. That's a good concern and we are concerned about that. We never know . . . have never found out whether a flare was the cause of that fire at Charley. Although, you know, nobody can say one way or the other. We're not saying it didn't happen. What we have done, however, since that time is, we have put further restrictions on where these guys let flares out. There is an altitude about 2,500 feet at which the flare is supposed to have a safety margin to burn out. We have doubled that margin, here, in the State of Alaska, especially during peak fire seasons. And we have a dialog with BLM, who keeps us apprised of the, you know, the fire danger status. But in general, we do not use flares up in this area.

SHIRLEY FIELDS:

My name's Shirley Fields. I work with a realty department with the Native village and I just wanted to say that there's a lot of Native owners in this area that you're talking about . . . I mean besides tribal, GEC Corporation and Native allottees and I think that it's . . . it should be your guys' responsibility, also, to have their comments, those Native allottee owners. I mean Circle, around Chalkyitsik and as well as Fort Yukon. I'm sure they have comments as well, that they want to . . . that they have to put in there. So I think that you guys should get a hold of them and ask how they feel about it, because one allottee can own up to 160 acres and that's a lot of land. That's all.

COL. HEUPEL:

Thank you. Is there anyone else?

MARDOW SOLOMAN, JR.:

My name's Mardow Solomon, Jr. I work for the CATG as a resource specialist. I'd like to thank you guys for letting us know . . . filling us in on what's going on here.

I would like to know that our voice does matter and that's why I'm making this statement. I'm opposed to this . . . the area you're doing training in and I would like for you guys to find an alternative. This area which is our subsistence area, which is a very important thing to us, our subsistence has got enough threats from everything else and I'd be . . . I know a lot of impacts are not recorded, you know, I heard a lot of

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it is and some of them haven't been . . . the impacts haven't been finished on them and it's gonna take a while for that. Anyway, I just wanted to make sure . . . get it down that I was opposed to this. Thanks.

COL. HEUPEL:

Thank you.

MARDOW SOLOMAN, JR.:

I'd be willing to work with anybody on filling us in. On keeping us informed.

COL. HEUPEL:

Thank you. Yes ma'am.

PAT STANLEY:

My name is Pat Stanley. I'm the administrator for the CATG and I just wanted to bring forward a concern about the way that subsistence is defined here. It's, ah . . . the way they talk about . . . effects is that it's going to affect the harvest of subsistence resources and the length of time it takes to harvest them and I think that doesn't have much to do with the subsistence resources. It's a very limited kind of definition on effects. Just how long it takes to get an animal or something.

And I also noticed that when that gentleman was talking about concern for subsistence resources and the areas where they were located, when he was pointing to the map, he always sort of avoided No. 5 and No. 2, but there's no place to avoid in the whole Yukon Flats. There's no place that it's not . . . that there aren't all the animals mentioned and so I have a concern about what kind of definitions that are being used here to do studies. And I noticed, also, that the impacts to subsistence here are very, very few for Level II and III and just very narrow definitions.

I don't feel like a thorough study has been done at all. And not all the concerns for all the wildlife in the area have been taken into consideration. Thank you.

COL. HEUPEL:

Thank you.

STEVE GINNIS:

There is one more thing I forgot to mention is that you do have some

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alternatives in this proposal here, as I look at it anyways. And I would support Alternative B. If you could show us on the map what that entails. From my understanding of this alternative, you would be taking these areas out and this would be the proposed addition, is the way I understand Alternative B. And from my perspective, I would support that alternative.

I think that the resolution that I just had shared with you indicates that we have no interests in these areas up here as proposed areas for your operations. So I ... I forgot to mention that and I just want to put that on the record.

Thank you.

COL. HEUPEL:

Thank you.

Is there anyone else that has a statement that they would like to make at this time?

I had cut you off on questions earlier in order to try to make sure everyone had an opportunity to make a statement. Do you have some more questions that you were wanting to ask? If you do, why don't you come on up and let's see if we can answer some of your questions.

CRAIG FLEENER:

Okay. I have one more question or some more questions that I had is, is low level flying mandatory or can your operations be done at higher levels without having to come down 3,000 feet?

MAJ. SITER:

When we train about ... I'll say between 10% and 20% of our training is done at low altitude. The other 80% to 90% of training is done above 5,000 feet. We do need to train at low altitude and the reason is that when we're training at low altitude, we're trying to avoid being detected. There are various sensors out there, radar being one of them and as technology has evolved over time, other sensor ... or other abilities to detect flying aircraft have been devised. We have to learn to train at low altitude so that we can survive. Particularly with air-to-ground aircraft. Air-to-ground aircraft have to often times go into enemy territory, deep into territory, to get to the target. And not only that, to get back out safely. And so when we train at low

altitude, again, from a context of these exercises that we do, the low altitude flying tends to be done toward the range. Because if the aircraft were to fly at low altitude the whole time, it would run out of fuel. It costs a lot more fuel for a plane to fly very close to the ground, than it does very high. That's why the airliners fly very high.

And so a standard profile for somebody who's out here training in the MOAs with the intention of going to the bombing ranges, is he starts out high, as he thinks he's reaching the range, or other aircraft from the other side or radars that are on the ground, like the Fort Yukon radar might see an aircraft, he descends down. Okay. Here, then, he'll try to evade radar and then reach the target. Once he reaches the target, he evades that low altitude. Once he's reached a safe distance, he'll then climb up for fuel so he can get home without running out of gas. And so the profile starts out a lot of high altitude with, limited amount of low altitude strictly to get the mission done and then to get out. Again, it's not done because it's a more enjoyable thing to do for the pilot. In fact, he's doing it because that's the way ... if he doesn't train in peacetime for the way he's going to fight in combat, he's gonna get hurt.

CRAIG FLEENER:

Well, that's understandable.

I was wondering what the possibility is looking for alternate places to fly low level where there's not going to be such an impact on the subsistence uses and people. Like, I don't know where ... like you said, there haven't been much studies done, but I mean, you might want to incorporate that into studying and finding places where there's less people living and less animals living.

MAJ. SITER:

That's part of our mitigation program. Just because an airspace has been designated as an area where we might be able to do training, if there are either seasonal or year-round activities that put that balance out of balance, then it's our obligation to consider changing where we do those type of operations, those low altitude operations or supersonic operations. Again, to get that balance back level again.

COL. HASSAN:

For example, the floor here is actually very low. Okay. Airplanes can go down as low as 500 feet here. However, in this particular area we've got a place that

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we've put up. And here, we looked at, we have assessed what would the impact be at 3,000 feet. If there is input from you guys that says

MAJ. SITER:

A specific drainage has a high value then we can look at ways that we could go over this range.

COL. HASSAN:

You know, maybe we'd have to raise the floor there.

CRAIG FLEENER:

What would you consider as high value? I mean there's ... like I said, there's 45 ... up above 45 different trappers that trap in that area. What would ...

COL. HASSAN:

That's your call. Your call to me is to say, this particular river is very, very high value to us. We have, I don't care if it's two trappers, I mean if it's high value to you and we believe that we would like you to take a look at is there a way that ... is there an alternative. But see, we don't know where that is. You do. And that's why we're here. So if you can show us specific areas that, you know, high impact to you, then we would like to work that with you.

MAJ. SITER:

The agencies are already doing that with us. The Department of the Interior for wildlife, as well as recreation, is in the process of, in fact, identifying the key river drainages and those key recreation areas and wildlife areas. We would be willing to accept the same input from you all, so ...

CRAIG FLEENER:

Yeah. We prefer to be giving you the information because most of the time we're ill-represented by the State of Alaska and U.S. Fish & Wildlife Service.

MAJ. HASSAN:

And that's why we ... we learned that last year from you. And that's why we tried to incorporate as much as we could about the wildlife and the subsistence. And we may not have got it all right, but that's why we're back. And we need to try to continue to work on it.

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MAJ. SITER:

You know, one of the suggestions again, is to try to fly elsewhere. And again, I tried to explain earlier today about how far our planes can travel given the fact that this is the region of a state from where our bases are we can train. This becomes the air where we have to learn to work together and have the dialog so that we can make sure that we try to achieve a balance.

CRAIG FLEENER:

I'm not much into saying, "Well, go fly over the next guy's country." 'Cause if we say pick plan B, you're just gonna be flying over some other people's country, you know. So, I mean, I know you guys have to train. I don't ... it's not that we like it. Nobody wants to listen to sonic booms, but I wouldn't say that I'm more for plan B than plan A just because you're gonna be flying over somebody else's country down there just like you're flying over ours. And everybody down there is gonna say, well we want plan A and everybody up here is gonna say we want plan B. So, I'm not gonna say which one I support because I support our people training, but I just think that there's gotta be some good and better studies done. And that we need to be involved and some other places have to be looked at. Nearby places that there's gonna be less impact on people, trapping, all subsistence ...

MAJ. SITER:

And that's the criteria. Again, as the judge mentioned, we were not the decision makers. That is exactly what the decision maker must consider before a decision is made. Is what you're talking about.

SHIRLEY FIELDS:

Okay. Another question. Who, exactly, is going to be the decision maker after getting everybody's comments and after this is final?

COL. HASSAN:

Okay. The what happens is, is next summer we'll come out with a final document that has been redone based on stuff that we collect over the next month. After that document comes out, you'll be able to look at it again and make more comment. Then the final document, plus the rest of the comment, goes to the Four Star General who sits down in Hawaii. Okay. He's the Commander of Pacific Air

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Forces. But that document goes to Washington, to the Secretary of the Air Force, so there's a civilian influence on this. So it goes to Washington and then the Commander ... it goes down there because he's the commander of all the flying forces in the Pacific. So that's the person who ultimately signs the document. But it's done in consultation with ... in Washington. Then when that's done, it still goes to the Federal Aviation Administration. Because the Federal Aviation Administration owns all of the airspace in America. The Air Force doesn't own this airspace. We request to use it.

SHIRLEY FIELDS:

So, FAA's the one that signs the Record of Decision?

COL. HASSAN:

No. Our guy will sign the Record of Decision. The Four Star General. He'll say this is what, given all of the information, given concerns that I've heard, given input that I've got, and given my requirement to train my people. Okay. I'll try and find a balance and here's what I want to do ... here's what I think we ought to do. Then that document goes to the Federal Aviation Administration and then they look at it and say, you know, whether it's okay or not. Whether, you know, it's an independent look. It's just that the Air Force can't say, "Okay, here's the Record of Decision, we sign off on it and boom it's done."

COL. HEUPEL:

I think there's something that's important, though, in what was said and that is, this process has been going on for over a year. And all of the hearings, we're collecting statements from people and yes, we have been down in Tok and Delta Junction and Glennallen and getting comments from people and they'll be providing comment, but much of this comment period and the time for people to be giving input on where the studies are not good enough or where they've omitted things, are within this ... the period between now and the end of November, because after that period, there's going to be a lot of putting it together. There may still be some opportunities for more studies, but there's a lot of the putting this study together that's gonna happen as soon as the total public comment period is done and at the end of November. And that's why comments and, you know, people taking a good look at what's here and

has everything been properly ... been identified or are we wrong on things is very important. And getting the input from you as to what's important to you and from a subsistence ... from an environmental standpoint.

BARRY WALLIS:

I have a question on Yukon 5. How much of it is privately owned?

BILL HAM:

I didn't hear the question.

COL. HASSAN:

How much of Yukon 5 is privately owned?

BILL HAM:

Let me see if I can ... go on to the next one. I'll see if I can find. Let me look at my land use maps here.

CRAIG FLEENER:

Who's gonna be the one that we turn the proposals in to?

COL. HASSAN:

Who's gonna be what?

CRAIG FLEENER:

Who receives the proposals for doing contract work? Is that done through you or ...

COL. HASSAN:

Through our ... and I'll get ... you and I need to exchange phone numbers.

COL. HEUPEL:

Yes sir.

STEVE GINNIS:

I was just wondering, you know, there's ... there has been a subsistence land use document that, you know, through the Division of Subsistence for this area that we're referring to here. I think it's 5. Is that what is it, 5?

BILL HAM:

Yup.

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STEVE GINNIS:

And it's this thick document right here. And I think this report will indicate to you that it is a prime hunting area. It's a prime trapping area. I mean, this report reflects that and I'm just curious, you know, in your research that you say that you talked about, what have you ... actually have worked with the Division of Subsistence and identifying subsistence use lands.

BILL HAM:

Yes sir, we have.

I don't know what particular document you've got there, but I can check to see if that was one of our sources

STEVE GINNIS:

This was done in 1983. This thing can be updated. It's an '83.

COL. HASSAN:

Alaska Department of Fish & Game, Division of Subsistence. We work with them.

BILL HAM:

I'm sure we did, but I can't swear that we looked at that particular document. But I'm almost positive we did. But we've got files of documents on subsistence use areas.

BARRY WALLIS:

Alright.

BILL HAM:

For the question that was asked about the Yukon 5, from our estimation, and again, it's hard to estimate, that about 11 1/2% of the area under Yukon 5 is Native Corporation lands and about ... of course, a much bigger portion of it is federal lands and a very small portion of it is state land, from what we've been able to gather information on. So about 11 1/2%, 12% is Native Corporation land.

BARRY WALLIS:

Not including private landowners?

BILL HAM:

We haven't been able to break out the individual small private landowners.

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We don't know who all's got those 160-acre ... I'd have to do some more research, Barry. I don't know who they are in this pile here.

COL. HEUPEL:

Are there any other questions or does anybody else that has not made a statement want to make a statement at this time?

BRIAN HOEFFLER:

I'd like to add one thing. This is Brian Hoefler. To the extent and addition to providing comments to us, to the extent that, you know, Craig, Pat, Shirley, you can provide information about where the subsistence areas are and where the animal areas are. If you can review the document and provide your areas that you have found through the CATG or whatever it was, lists of land owners and so forth and where they are, that would also be very helpful, in addition to your comments on the document.

PAT STANLEY:

Do you have some more full documents available or just the 10 pages?

COL. HASSAN:

We don't have any of the full ones with us. We have one here, but if you need a couple more I'll have the guys back in Anchorage send you some. We're gonna get ... we're having more printed up right now. That's no problem. If you want a couple full ones.

PAT STANLEY:

Yeah. 'Cause it's hard to determine what you don't have and what you do have if you only have this (UNINTELLIGIBLE).

COL. HEUPEL:

Anything else?

SHIRLEY FIELDS:

I have a question. Just overall, your proposals would increase use of these areas and they would also be permanent use instead of having to have permission every time. Are those basically what ...

COL. HASSAN:

Basically, they would allow us to have access. They would chart this on an airspace map and they would allow us to have access to this airspace over 240 days of

the year, but we have assessed that to be around one flight. We don't expect a lot of people to come up here on a routine basis. I think it will remain—it's safe to say it will remain pretty much the way it is today, in that it's a lot of very high altitude during the exercise times. Which is about three two-week periods a year.

SHIRLEY FIELDS:

Permanent over how many years? I mean is it permanent?

COL. HASSAN:

It's permanent until you try to change it. It's permanent until the FAA ... if the FAA says that they want to change it, they will. We have changed these airspace in Alaska since 1976.

CRAIG FLEENER:

Have you guys assessed the possible damages or dangers to private pilots in this area? What sort of impact you guys are gonna have? 'Cause if you're flying at 3,000, we have a lot of private pilots flying around ...

BILL HAM:

We found that the general aviation ... we assessed a Level I impact, which was a minor potential for interaction. Most of the general aviation, from what we've gathered from the FAA data, and there's very limited data because nobody keeps records on it, the general aviation, anymore, was 3,000 feet and below. And because the military activities would all be above that and predominantly, in the high teens on up, and we assessed that as not being anything more than a potential for a very minor potential impact.

COL. HASSAN:

As opposed to (UNINTELLIGIBLE)

BILL HAM:

As opposed to like down here along the highway, here.

COL. HASSAN:

This could be very high. We've assessed this.

BILL HAM:

And that was assessed at a potentially much higher level than up in this region up here.

COL. HEUPEL:

Yes, sir. Could you come forward, please? I'm afraid the mike's not going to get you back there.

QUESTION #32:

Yeah, the question I had was that after this becomes a permanent situation where you wouldn't have to get permission to fly into and if you have an increase in your aerial flights or if ... would the studies continue on, on the effects of the animals and a lot of the questions and concerns that were raised here, would you go ... continue on with the studies to see the effects, after the increase? If you went from 170 to 240. To determine the effects (UNINTELLIGIBLE).

COL. HASSAN:

Yes. In fact, for this particular area, permanent means we have access to this airspace, but if we wanted to fly more than one on a routine basis, we would have to do another assessment. If we wanted to fly from 170 to 240, we would have to do another assessment. So permanent is a relative term. We assess it the way we have it in here. If it's accepted that way. If we change it, we've got to assess it again. And we would have to go through this same process. So, it's a ... the term really is, is that is it charted and do we have access to it based on an assessment that we make or is it not charted. If it's not charted, then we can't have access to it.

MAJ. SITER:

One thing about this particular airspace, of all the airspaces in the proposal that would be potentially made a permanent airspace or a charted airspace, Yukon 5 is unique of all the airspace in this region in that this is an airspace we have to get permission even to use it one day at a time. Realizing what I told you earlier, there are not even published hours for this airspace. All the other airspaces have hours published for them. Either because they're already permanent and charted or the ones here that we are proposing to be charted, have hours on the average from about 8:00 in the morning to 6:00 at night. So this airspace will be infrequently used. And the reason again is, the ability to access it. Without aero refueling tankers, it's difficult to get up to Yukon 5, from even Eielson, and do training. But that's why it's predominantly used for exercises. 'Cause during exercises is the only time you really

have tanker aircraft. We only have like five or six in the whole state and they're predominantly used to allow us to do the alert mission that defends the coastal areas. See, that mission hasn't gone away. We have aircraft, at Elmendorf, sitting on alert as we speak. If those aircraft had to get out to these outlying areas, tanker aircraft from Eielson Air Force Base have to go out over the ocean and help refuel them so they can go out and do the intercept. So those tankers are not available every day. And if you don't have the tankers, it's very difficult to get up here. So what we're trying to say here is, on the average, the sortie numbers will be one per day. That's an average number. Okay. Some days ... you may go for weeks and no routine sorties will go up there because either we don't have tankers to get the aircraft up there, or the pilots will say, "Hey, I wanna do more bombing training. If I go way up here, I can't get back down and go to the bombing ranges as long or do as many events, activities, if you will, if I do that. So again, this is an average number. One per day. And again, it's "notice to airmen" "activation only". We've got to get permission to open it.

(END SIDE TWO, TAPE ONE)

(BEGINNING SIDE ONE, TAPE TWO)

COL. HEUPEL:

.... to put together our equipment so we'll be able to get out to the airplane, but while we're doing that, if some of the people have more questions that you want to ask, come on up and let's make sure that for the resource providers that we've got your names and addresses and see what we can do to continue the dialog.

Thank you very much for coming out this afternoon.

COL. HASSAN:

I'd just like to close by saying, again, I can only work on what I can do myself from here on out. I know that there has been some trust problems in the past. I can't change what happened in 1958. I can't change what the Air Force did before. What I can do is starting last year when I had an opportunity to get involved in this with these folks, is start a dialog. I met Barry. I've met Steve. Now, some other folks. And that's what I'm trying to do, is build up some trust level that we will do what we say we will do and we will listen to what you have to say. And I appreciate

the opportunity to be here. Thanks to Steve, I got on the radio today and I hope that we can continue a working relationship with some of the local talent that, you know, will get us to find out exactly, you know, we don't want to have an impact any more than anybody else, but we have to train our young pilots. So, what we're trying to do is figure out a way to do what is smart instead of the old way, which was, we'll just do it. And we can only do that with your help. So thanks for the opportunity to be here.

CERTIFICATION PAGE

I, Diane A. Beaulieu, do certify that this transcript is an accurate record of the proceedings as recorded.

DATED: 10/25/94

Diane A. Beaulieu
Diane A. Beaulieu

Subscribed and sworn to
before me this 25th day
of October, 1994.

Susan M. Davis
Notary Public
My Commission Expires: 3-1-97

Addendum:

The tape and transcript of the second Ft. Yukon MOA DEIS public hearing held on October 4, 1994, were reviewed from the point beginning with the discussion indicated by "Question #1" in the transcript through the end. Corrections were made accordingly to the electronic (disk) and hard copy versions.

Karen McKibbin

Spectrum Sciences and Software, Inc., November 21, 1994

ALASKA MILITARY OPERATIONS AREA
PUBLIC HEARING
MCGRATH, ALASKA
OCTOBER 10, 1994

COL. HUEPEL:

Friday, the 10th of October and the time is 7:48 p.m.. We are at the McGrath School, in McGrath, Alaska. We have no one here from the public for this public hearing on the Alaskan operating area Draft Environmental Impact Statement.

To the best of our knowledge and from all of the previous places we've been at, the public notice was published as it had been sent out and the Draft Environmental Impact Statement had been received at all of the hearing locations that were listed in the appendix to the Draft EIS. We can only assume that it was published here and that the Draft Environmental Impact Statement was received here, but since we have no one here, I'm going to close this public hearing. And the time is now 7:59 p.m., excuse me, 7:49 p.m. and we'll probably be here cleaning up until about 7:55. If someone comes, we'll reopen.

CERTIFICATION PAGE

I, Diane A. Beaulieu, do certify that this transcript is an accurate record of the proceedings as recorded.

Dated: 11/1/94
Subscribed and sworn to
before me this 1st day
of November, 1994.

Diane A. Beaulieu
Notary Public
My Commission Expires: 8.1.97

GLENNALLEN PUBLIC HEARING
DRAFT ENVIRONMENTAL IMPACT STATEMENT
SEPTEMBER 28, 1994

COL. HUEPEL:

I don't see anybody else outside coming in, so I'm going to go ahead and start since it's a little bit past 7:00. I want to welcome you to the public hearing tonight on the Draft Environmental Impact Statement for the Alaskan Military Operations Area. I want to thank you for coming out tonight and we solicit your comments tonight and your input into this process.

I'm Col. Jim Heupel and I'm going to be the presiding officer for this public hearing. I serve as a military criminal trial judge and I'm assigned down in Washington, D.C. So, as a result, I'm not really involved in this environmental process. I'll talk more about that a little bit later. But I would like to introduce to you the people that are involved in the environmental process and will be briefing you tonight. Col. Rich Hassan is up here by the screen. Col. Hassan is the Commander of the 611 Air Support Group stationed at Elmendorf Air Force Base in Anchorage. Col. Hassan will provide you an overview of the Environmental Impact Statement Process. Sometimes you'll hear us refer to EIS. That's the Environmental Impact Statement. In the front with the sweater is Major Bob Siter. He's also stationed at Elmendorf. He's an F-15 pilot and is the Chief of Fighter Operations at the 611th Air Operations Group. Major Siter will be briefing you on the proposals that have been studied as well as the issues that have been raised at the prior scoping hearings. And then in the rear in the black sweater is Mr. Bill Ham. He's employed by Spectrum Sciences and Software. They are a contractor for the United States Air Force. Their offices are in Florida and Mr. Ham will be briefing you on the environmental consequences of the proposed actions and the alternatives.

Now I've mentioned I'm a criminal judge. I'm here at this hearing not as a legal advisor or as an expert on the environmental process, because I'm certainly not that. And I've not really had any involvement with the development of this Draft Environmental Impact Statement. My purpose in being here is to conduct an orderly

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hearing and make sure that everybody has a fair opportunity to speak and to be heard and to have their comments considered by the Air Force in this process.

Let me explain to you the public hearing process that we'll be following tonight, and the procedures. The Air Force has prepared a draft Environmental Impact Statement, or Draft EIS. This is one volume of about four volumes that it encompasses. It is located at the Copper Valley Library, the community library, if you haven't had a chance to look at it. If you want more information than you'll be getting here tonight in the brief summary, or in the brief summary that you picked up, those four volumes are at the public library.

This Draft Environmental Impact Statement has been prepared in accordance with the National Environmental Policy Act and Air Force regulations that implement that Act. The purpose of the hearing tonight is to summarize for you the results of this Draft Environmental Impact Statement and to receive your comments on it. Now, the hearing will be in two parts. In the first part, Col. Hassan, Major Siter and Mr. Ham will present information to you concerning the Environmental Impact Analysis process. This is a required hearing to summarize the Draft EIS for you. It'll take approximately 45 minutes. The second part of the hearing will be the public participation portion where you will have an opportunity to comment on the Draft EIS and certainly to ask any questions clarifying what's been presented or what's in the Draft EIS itself.

The hearing tonight is intended to provide a forum for two-way communications with a view towards improving the overall decision making process. Your input insures that the decision makers – none of who are in this room – so that the decision makers can benefit from your knowledge of the local area to make sure that if there's anything that has not been considered, that you can tell us about it so that we can make sure that it is studied and it is considered in making a decision as to what should be done.

Now the hearing is not a debate. It's not a referendum. It's not a vote on which proposals or alternatives should be adopted. The focus is on the environmental impact analysis process and the environmental impacts associated with these proposals that have been studied by the Air Force and again, to get your comments.

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When you came in tonight, you were asked to indicate if you wanted to speak. Even if you indicated that, initially you didn't want to speak, after I found out going through all those people that indicated they wanted to speak, I'll still ask if anybody else wants to speak tonight so that everybody has an opportunity to provide their comments if they wish to tonight or to ask clarifying questions.

If you don't want to make an oral statement tonight, you have until the 30th of November. Initially, written indication was it was going to be the 31st of October. That's been extended. The Air Force will consider any written comments it receives by the 30th of November. So, if you want to go back and look at the Statement in more detail, you're certainly welcome to do that and send your comments in to us. The address is at the top of the comment sheet that they have back at the registration area.

And, let me point out that whether you make an oral statement tonight, whether you submit anything in writing tonight, or if you submit it later on or if you do all of the above, speak tonight, submit something later on in writing, it all has equal weight and will be given equal consideration in the decision making process.

With that, let me turn the meeting over to Col. Rich Hassan.

COL. HASSAN: (SHOWING SLIDES)

Thank you. Good evening. As Col. Heupel said, the purpose of our presentation tonight is to basically let you know what we've gone through in the process up to this point, where we are today, focus in on some potential impacts that we have identified and to listen to your concerns or issues or comments about what we've done in the documentation. I'll start and then Major Siter will talk about the proposals so you get a better understanding of what it is that we're proposing to do. We'll discuss issues that were raised from the meeting that we had here last year as well as fourteen different other locations throughout the state. We'll talk about and focus on this specific area. What kind of environmental consequences or potential impacts that we have identified. And then we'll talk about ways that we can work with your comments and achieve what we like to consider the balance that we are seeking. The balance is that between the necessary training that we must accomplish and our concern for any potential impacts that we may have on the environment or

people. First, I would like to address a couple of issues that came up last year in the various meetings that we attended. First and foremost, this is a proposal. That is, we started this a year ago. We've gone through a year's worth of activity and we still have at least a year to go before a final, what's call ROD or Record of Decision, so that the public participation, participation of other federal and state agencies is key in this and will be considered — has been considered — changes have already been made and will be considered as we continue through the process.

Second, this proposal itself does not address bringing more aircraft to the state. It does not address increasing the amount of flying overall that is going to occur within the state. This is basically an adjustment of the airspace that we have available to us today and, in fact, an actual decrease in the overall size of airspace that we have available to us today in the State of Alaska.

The third point addresses military operations areas themselves. That is the boxes that you see and the various maps that are drawn in the documentation that you have. These are areas in the sky where the military is contained to do its maneuvering training. They were identified in 1976, established at that point, in order to act as an advisory to civil aviators, to let them know where the military's training is confined to. It has never been, nor will it be, an exclusion to civil aviation air traffic, either civilian or commercial. They're there to act to contain the military and to act as an advisory.

And last, but not least, I hope you'll see that we have included comments and issues and recommendations that we have received along the way and we remain open to continue to do that.

The basic question is why are we going through this proposal? And the fundamental issue is we basically in the State of Alaska, the aircraft that have been stationed here for years, were focused on the Cold War. And in the Cold War, we had one mission, and that was to defend North America, to defend Alaska from any potential adversary. So, in order to prepare to do that, we did a lot of air-to-air training with our aircraft. In today's environment, the mission taskings that we have for the aircraft in the State of Alaska, are for the folks to be able to train to prepare to pick up and deploy to hot spots around the world. In order to accomplish that kind of training, we

have a lot of air-to-ground missions that we have to have our pilots prepared and ready to go at a moment's notice. So we needed to adjust our airspace in such a way that it would better suit those training requirements.

Secondly, we have used both permanent military operations areas and temporary military operations areas. Temporary military operations areas are simply those one-time areas that we apply for, get permission to use, when we have to expand the amount of airspace that we use for any given exercise. And we'll talk more about flying exercises and their importance to our training. But in the process of doing that, two things occur. When you apply for temporary airspace, we have to go through a fairly lengthy paperwork process with the Federal Aviation Administration. This is both time-consuming and expensive. We have, for example, over the last three years, applied for the same temporary airspace, for the same reasons, and spent well over a million dollars. We would propose that in changing some temporary airspace that we have in the State of Alaska, to permanent airspace, we will avoid that process, thereby saving tax dollars. Additionally, temporary airspace is not charted on air maps. And remember, one of the main reasons to create military operations areas is to act as an advisory to civil aviators. Temporary airspaces are not charted on maps, so we think, we believe, that by charting, by creating permanent airspace, that will act as an additional safety advisory for civil aviators.

And last, but not least, the strategic location of Alaska is very important to our national defense. As we draw down forces, those few remaining fighter wings that we have, and we have two here in the State of Alaska, become critical to be able to move rapidly and pick up and deploy. The strategic location of Alaska is that we can deploy forces either east or west over the Pole faster than any other place in the United States, thereby causing a need for our forces to be the finest trained in the world.

The process that we have gone through up to this point is called the environmental impact analysis process. We started a year ago. We were here around this time last year in what was called the scoping phase. We presented some proposals of what we wanted to do. And we got a lot of feedback from here and from other locations as to some suggested changes. We actually implemented several changes

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that were -- several suggestions that were made and we'll point those out in later discussion.

Over the past year, we have gone now and looked at all of the inputs that we got and analyzed them. And that big thick document there is what was produced at the end of that. It brings us to where we are now, public hearings. And the hearings are in order to collect more comments, more feedback, more input from, not only the public in the public hearings process, but we meet with federal, state agencies, local citizen groups, to collect all of the information that we possibly can. We'll go back, given information that we collect from this forum, and it will probably take about another six months or so, to either add analysis, refine analysis, or change some things in the document, and then some time next summer, we will have a final environmental impact statement that will come out again for your review before any decision is made by the Air Force.

That big, thick document is actually divided into four distinct pieces. Why we need to do it; what we're asking to do; what areas are affected; and what potential impacts may we expect because of our actions. These are the fifteen locations that we went to last year and we are returning to this year to have public hearings. They are on the next chart by date. We started last week in Anchorage. We're here tonight in Glennallen and we will continue through the 12th of October. And as the judge said, we will accept written comment through the 30th of November.

Now, I'd like to turn the program over to Major Siter who will discuss the proposal with you.

MAJ. SITER:

Thank you. As Col. Hassan mentioned earlier, change in operational readiness requirements for the units based in Alaska is the driving force behind why the proposal is before the public. When you're looking at changes in readiness requirements, the impact starts with how you train your people to meet those readiness requirements. So our training programs had to be adjusted to attempt to meet that readiness level, that increased readiness level. But when you look at how you change your training programs, you have to look at your airspace structure and how it meets those new training programs. So, these are the forces driving the restructure of airspace.

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Well, you have to look at what you already have in terms of determining what are the reasonable alternatives to meet that new training program. The first parameter is the bases, both at Elmendorf here in the Anchorage area and Eielson up in the Fairbanks area. These are the two main bases in the state and they were created during the Second World War. Additionally, given the fact that we now have a major focus on the air-to-ground training, and air-to-ground readiness requirements, the bombing ranges play a critical role in our ability to train. There are only three bombing ranges in the state and they're all in the immediate southeast area of the Fairbanks area. All created during the Second World War. You also have to look at how far can your aircraft travel to go do training. And that depends upon how much fuel each aircraft can carry. And that varies from aircraft to aircraft. For example, the F-15C model here depicted with the solid green line -- this is the distance that aircraft that depart from Elmendorf, go out to a military operating area, do the training and then return back to Elmendorf with a safe level of fuel. The other aircraft, the F-15E, the Strike Eagle, the OA-10 and F-16, these are the air-to-ground aircraft that are in this state. They must train routinely on the bombing ranges. And so their region of training obviously needs to include that bombing range -- those bombing ranges. And again, these are distances that aircraft can go out, for example, out of Elmendorf, turn in a military operating area and then go to a bombing range, and then, of course, return home.

Not only is the military infrastructure important, there's other federal agencies that have structure out there. The Federal Aviation Administration has airways. And those airways are the highways in the sky that both military, commercial and civil aviation use to transit around the state. The location of these were created in the 1930s and 40s, throughout America, and their location's critical in that in 1976, as Col. Hassan already discussed earlier, these permanent MOAs which were created then, were poised to the extent possible away from the airway structure. Temporary airspace has also been around since 1976, and it's been arrayed throughout the state for a variety of exercises. Additionally, we've used temporary MOAs in these regions of the state as well, here depicted in blue, and they were also positioned away from the airways to the extent possible. Again, to avoid interference between the two different systems.

The proposal itself considered changes to existing permanent MOAs. I'll start in the southwest region of the state and work in a clockwise fashion up to the Interior towards the Canadian border.

The first airspace is Naknek 1 and Naknek 2. This is airspace that's immediately adjacent to King Salmon Air Force Station where for decades we've had alert aircraft on station during the air defense mission, which for a long time was the focus of air operations in Alaska. Well, those aircraft were relocated back to Elmendorf. The alert aircraft used in Naknek 1 and 2 airspace quite a bit. But Elmendorf aircraft fly out there routinely and do training as well. What's resulted is a partial reduction in the number of aircraft that go into that airspace. As such, what we're proposing is to reduce the airspace activation window from a ten-hour window down to a five-hour window.

The Stony airspace here, Stony A and Stony B, is presently the only electronic instrumented airspace in Alaska. What it is is antennas on the ground, that track telemetry pods that the aircraft carry under their wing. The pods broadcast the position of the aircraft, the air speed altitude and heading. And it's all beamed off of a satellite back down to Elmendorf and saved on a videotape. The air crews land and they go into the theater and they sit down and they get to see the film of the air engagement. And what they can see is many different perspectives. God's eye view of the whole battle; they can go into the cockpit of any one pilot; the parameters for all the aircraft in tabular form over on another screen and they can freeze it at any time, talk for a while about what they've learned, and then move the tape on. What does it do? The bottom line is that it accentuates training to a level that we cannot necessarily get in all of our airspaces. And so, again, a very valuable airspace. At the present time, the floor in Alpha is, Stony A is 100 feet above ground level, but the floor in B is 3,000 feet above ground level. Our proposal assess the impact of lowering the floor to 100 feet above ground level to match the Stony A floor.

Galena MOA here is just southeast of Galena Air Force Station, and like King Salmon, we had alert aircraft there for decades doing the air defense mission. Those have also moved back to Elmendorf, and as such, since Elmendorf does not routinely access its aircraft to that airspace day-to-day, the primary use of that airspace

is essentially gone away. What we're proposing here is to make the airspace an airspace that must be activated as it's needed periodically by the Air Force, with a "notice to airmen system", so that its civil aviators know when the airspace will be used. On occasion, both the King Salmon and out to Galena, we take aircraft and put them on alert out at those facilities. The reason being is so that we make sure that our runways, our cable barrier engagement things, our fighting services, everyone's ready to support the mission if the world situation were to change. So the airspaces get activated for that exercise, and when it ends, the airspace is closed and the aircraft return back to Elmendorf.

The last airspace is Yukon 1. At the present time, the floor of Yukon 1 is the surface, the ground. We don't train at ground level. And so our proposal is to raise the floor up to 100 feet above ground level to match Yukon 2 to the north.

The second component analyzed was the conversion of existing temporary MOAs into permanent MOAs. There are three major regions of temporary MOAs. The Yukon 3, 4 and 5 area up here, the connecting MOAs in this region of the state, and then Fox MOA to the south. The area up here, what it provides to the Air Force is that suitably sized airspace, so that we can contain a major flying exercise. If we attempt to conduct, to confine major flying exercises to the smaller permanent area, it compresses the aircraft too close together and is unrealistic and does not replicate, for example, the spacing and the maneuvers that were done, for example, in Desert Storm. It provides — a larger airspace provides the necessary area to do the things correctly so the right lessons are learned. Additionally, day-to-day, what this would allow, is aircraft that are confined to this area would be allowed to disperse their activity to these other areas. Again, helping the Air Force do its training with less impact and also to be able to deal with the adverse weather that's often in the state.

The south area here, Fox area, I showed you a map earlier that had circles around the different bases on how far the aircraft could travel. It had some circles around Eielson like this and some circles around Elmendorf. This area here was the only area where the circles overlapped. That's important to the Air Force in that today, our F-15 Force at Elmendorf predominantly has to train against itself because it can't reach the Eielson aircraft areas that they can reach, so that they can train

against each other. What happens is that F-15s have to fly against each other – F-15 versus F-15. And we still get training out of that, but that's not the way we want to train a well-rounded pilot. He's got to go up against other types of aircraft because that's real combat – trying to learn what the advantages and strengths and weakness of the other aircraft are and how to exploit them. So, dissimilar air combat training is very important. Additionally, if you can never get on the wing of another type of aircraft, form on a team, how do you learn what their strengths and weaknesses are, other than through a book. You've got to get down, plan your missions, talk with these pilots, learn how they mission plan their missions, learn how they coordinate, learn what their strengths and weaknesses are. Because if we don't do that in peace time, we'll find out in combat the hard way, and that's going to increase our losses. So, again, a valuable area for us to try to accentuate our training, in those two areas.

The last area is the area in the Interior here. We call these the connecting MOAs. An enlargement of that area. These three red areas are the three and only three bombing ranges in Alaska. The green area here is the existing permanent airspace as it is today and the blue areas are the temporary airspaces we use for exercises. What happens day-to-day is air crews are flying to Yukon 1. They may be getting engaged by other aircraft. They're intent is to go to the bombing range. But as they reach the southern border of Yukon 1 – Cause these airspaces are not in existence on a routine basis – they have to stop their training, climb up to high altitude to get in radio contact with the FAA, slow down, and get permission to go on to the bombing ranges. Once they get that permission to move on to the bombing ranges, they drop back down and then they go to the target. Imagine, if you will, a real scenario of the aircraft as it were approaching, an actual target were to pop up and fly up, it promptly would put their survival at risk. And so what it provides is negative training to the pilots. Doing things they would not actually do in real combat. We would like to be able to have the aircraft pilot transit through these military operating areas in a subsonic, straight-line manner, i.e. these would not be maneuvering MOAs unlike the larger airspaces out here that are sufficiently sized both laterally as well as vertically to do maneuvering. These are usually – most of these areas are very low in depth and you can see them from the map, they're much smaller laterally. So the idea here again, is

just for us to transit into the range and then get back out.

The third component is to create two new permanent MOAs. The MOAs are Falcon MOA here. Immediately over and adjacent to Eielson Air Force Base and the Clear Creek MOA depicted right here. You will note that the Clear Creek MOA abuts up against the northeast side of the Blair Lakes Range depicted in red, one of those three bombing ranges in Alaska. The purpose of Falcon MOA is to allow connection between the Yukon 1 MOA which I've kind of shadowed right here, so the aircraft can come in from Yukon 1, go through the Falcon MOA and reach Eielson Air Force Base. The reason why we want to do that is to conduct airfield attacks, simulated of course, on Eielson Air Force Base. When we train in exercises, we don't just train pilots. We train units. The units consist of our maintenance people, who have to learn to handle generating and flying – getting the pilots back airborne, refueling aircraft, under those type of adverse conditions. Our medical personnel have to treat simulated casualties. Our civil engineers deal with damage to the airfield and to the runway. So, again, the idea is to train the units.

The Clear Creek MOA – what it provides is an avenue for the aircraft to come through and reach the Blair Lakes Range through the northeast. This bombing range of the three bombing ranges. One, you need characteristic (?) it's fairly important – it's called a controlled range. There's two types of categories. Controlled range and tactical range. A controlled range is like a beginners' range. What we want to do here is emphasize to the pilot in a controlled manner, to get in a racetrack pattern, it's very non-tactical here, and just practice being very accurate with his bombs so he learns how to bomb a target correctly. Whereas a tactical range is where you want to have a situation where an aircraft can practice coming into the target from different directions, different altitudes, negating different types of simulated ground threats, so that when he goes to combat, he knows how to approach a target and do it correctly, and do it in a way that he's going to survive. Well, obviously in a controlled range, you don't necessarily need to come in from any different quadrant of the bombing range. Whereas a tactical range, you might be able to come in from any different direction. So, again, a controlled range is an important parameter as we look at the need for Clear Creek.

Authorized supersonic operations in five MOAs. The areas that were assessed are Fox MOA, Yukon 1, Yukon 3, Yukon 4 and Yukon 5. They were all assessed for supersonic activity at or above 5,000 feet above ground level. That is the parameters we've used elsewhere in the state for supersonic operations. Now, when we do supersonic operations, normally they're done very high, 30, 40,000 feet. And there's a reason for that. As an F-15 pilot, who's an air-to-air pilot, when I'm trying to engage other aircraft who might have air-to-air missiles of their own, the aircraft that's going the highest and the fastest has the ability to shoot the missiles the furthest. And, so, what we're looking to do is not be low and fast, but rather high and fast. To be able to get that offensive advantage on the other aircraft. Additionally, as you start engagements, often times the situation where you think you that you are—you have the advantage, sometimes you lose it for factors that are part of the scenario. And if you need to leave a fight, the faster you are, the easier it is to leave a situation that may not be going in your favor. So again, the idea is most of the operations are very high. They usually last from a few seconds to a few minutes.

Conduct joint and combined training. Joint training is the training the Air Force does with the Army, the Navy and the Marines. Their aviation components. We've been doing this for a long time, for over a decade. The value of that is that we learn, just like we talked about composite force training. We learn what different aircraft do, we want to know what different services do. As far as how do they plan their missions, how do they coordinate. Do it in peacetime. We've been doing it for a long time, it's paid valuable benefits to us. Same thing with combined training. Combined training is the training we do with our allies. For example, we've been training quite a bit with the British and the Canadians in Alaska. The United States Air Force has also been going to England and to Canada and other places around the world—Australia—learning how they operate. So again, when we want to form a coalition air force like we did in the Middle East, we're not—by making the investment now, in peacetime, we get the benefit if we get in a conflict. We believe this is the way of the future, this is the way the Air Force is going to continue to operate. It's going to be in a coalition fashion so we need to invest today for that potential in the future.

Conduct up to six major flying exercises per year. We presently are authorized to do up to six per year. In the past, we've done anywhere from three to four a year. Next year we're on scheduled for doing four exercises. These exercises are important both to our individual pilots, but also to our units. When we do these major exercises, we train as units. Our maintainers, and our flyers all do this all together. The key to this though, as far as the pilots, is that if we can give them training sorties in simulated combat situations, season the pilot in peacetime, when he goes to a conflict, he's going to have a higher chance of survival. We learned that the hard way in Viet Nam that we were emphasizing a part of Viet Nam, a lot of one-on-one and two-on-two training, not the exercise type of training. We didn't make an investment in that and we had a high mortality rate and shoot-down rate of our young pilots on their first ten missions. So, again, investment that has worked for us in the past, and we believe will work in the future.

In the course of the scoping meetings last fall, and through public and agency comments, some alternatives were derived and I'll describe them now. The first one is Alternative A and what it looked at was the elimination of the Clear Creek MOA, which was again, just northeast of the that Blair Lakes Range. And I talked about why, as far as Blair Lakes being a unique type of range. So we're looking at—we've looked at this alternative very closely, based on that. Additionally, another alternative, Alternative B in the document, looks at the substitution eliminating Yukon 5 here to the north, and Yukon 4, and substituting the Tanana MOA. These airspace were maneuvering airspaces and this one is also accessed as a maneuvering airspace as opposed to the airspaces I talked about earlier which were the connecting MOAs which are strictly transitioning MOAs. Going from one point to another. So this was again accessed as a maneuvering MOA. This alternative has additional new airspace with, obviously, Falcon, Clear Creek and then the addition of Tanana MOA. This airspace was assessed for supersonic operations. Again, because in substitution for airspace up here, which was also assessed for supersonic ops.

In the course of scoping last year, a number of issues were identified by the public and by the agencies. The number one identified issue was the airspace management aviation safety area. However, wildlife, recreation and subsistence also

received a sizeable number of comments. What I'll do now is turn it back over to Colonel Hassan.

COL. HASSAN:

Okay, now we'd like to focus in on those potential environmental consequences that we have identified in the document as a result of our proposal.

First, I'd like to start with some definitions hopefully to help you understand some of the terms that are used in the documentation. The first one is "cumulative impacts" and this is simply a concept that says, within a military operations area there is a lot of activities that go on. It's not just an airplane flying in the air, or an exercise going on, or a base being nearby. It takes into account all of the various activities that can occur in that same area. And cumulative is used in the standard sense of the word meaning, you add up all of those effects and then you get a total effect. Those are the effects that are represented in here. So it hasn't been divided apart, it has been added together. So each of the impacts that are addressed are a sum total of all the activities that would go on under each of these areas.

In terms of methodology, we started with a base-line. That is the way the Air Force trains in the State of Alaska today. That's the base-line that we—we began with. Secondly, we utilized, in order to do an analysis, standard methodologies where they exist. For example, the subject of noise is fairly well understood. There are lots of studies that have been done about it. How noise affects humans, as well as animals. And those studies are, sort of, on the shelf, so to speak, and you can take them off and say, here's the number of airplanes they're going to fly, here's where they're going to fly, here's how they're going to be. And you get some, you know, quantitative results out of that. However, in the areas of, say, wildlife, impacts on recreation, impacts on subsistence, there are not a lot of set studies that are accepted across the board. So what we did was, we went out and in consultation with other federal agencies, other state agencies, the academic community, and basically a peer review of experts, biologists in their field, wildlife experts in their field, put together methodologies that produced what we would predict as impacts. We have been told that we were fairly conservative in those impacts.

Secondly, there are three levels of impacts that you will see described in the document. And again, in the next part we're going to go through this specific area and address them. Level I impacts are basically, in the past, we have not seen any adverse action based on whatever particular field was we were looking at. Nor do we expect, based on the best evidence we have today, any future impact. Level II, where we identify a potentially adverse impact because of our actions, is basically a seasonal kind of impact. For example, if you look at the Fortymile area, the peak times of recreation use is basically the first part of June to the last part of September. The impacts that we would identify that would occur, say in July in that area, may not occur in February. So that the effects of our activity are basically going to be seasonal in nature and that has been assigned fundamentally a Level II impact. A Level III impact is a significant impact. Over time, if we continue the activity, we may actually end up changing a habitat, or changing the effect on wildlife and you will find that we have identified that potential.

Of the eight or so areas that Major Siter said came up and were addressed to us in scoping, we found potential Level II or Level III impacts in these four areas. So what I'd like to do now is ask Mr. Ham to come up and we've got these charts for the entire state, or all the areas that we fly, but we thought we'd focus in on this particular area here.

Mr. Bill Ham:

I'll try to stay out of the way as much as I can. As Colonel Hassan told you, there was four main areas that showed up with a potential for Level II and III impacts. The three, airspace, airspace safety, wildlife and recreational, showed up down in the regions, I think you all would be most concerned about in Glennallen and Lake Louise area.

A little bit of perspective, Glennallen would be down here about 30 miles from the southwest corner of Fox. The Lake Louise State Recreation Area would be 18-20 miles south of the southern border of Fox. In a proposed action, up north of here, as you all, at least the flyers would know, that there's a large amount of civil air traffic transiting the corridor on the Alaska Highway and on up to the Richardson Highway going on up to Fairbanks. With the establishment of these low-altitude

airways—low-altitude transition MOAs into the range and that civil traffic, the team assessed that as a potential Level II impact because of the crossing traffic in that area. Also up in the lower regions of the Forty Mile and the Yukon-Charley. One of the alternatives, the Tanana alternative or Alternative B, which potentially could impact aviation out of the Glennallen area here, was assessed at a Level III. Not only did it have the same problems that you see with the transition MOAs, but also with this being a maneuvering MOA now, 3000 foot floor in this area, a 300 foot floor through the majority, the central and eastern portion of the MOA, there was a much increased potential for aviation safety impact. And also, this MOA would essentially close-off three instrument “vector” airways. V-481, and 515 going from Glennallen up to Delta Junction, and also V-444 that runs through from the southeast to the northwest up towards Fairbanks.

It was documented in the analysis that potentially all, or most animal species, could expect some level of, at least disturbance or startle due to low altitude aircraft overflight. There were three species that exhibit the potential for Level III impact, and in those species, some particular areas and herds.

For the caribou, the Delta herd, ranging general this area, the Eielson, and possibly even into the northern portion of the Fox MOA. It has a high economic value, it's a herd that has been decreasing over time, in terms of population, due to many factors. And it was assessed that during the critical calving season, this is a winter range area that is shown here, the calving areas would be much a smaller subset of this and would be identified by ADF&G and other agencies and folks, the potential of low-altitude overflight over that herd during the critical calving seasons in the May to early summer time frame, could potentially impact that at a Level III for that particular herd.

The waterfowl, a species of concern here was the trumpeter swan. It's a relatively rare bird, . . .

(END SIDE ONE, TAPE ONE)
(BEGINNING SIDE TWO, TAPE ONE)

the trumpeter swan, it's a relatively rare bird. In Alaska, you have some of the highest concentrations of the total nesting areas. Along the Tanana River here, up in the proposed Buffalo MOA, down in here, a potential along the Gulkana, and even though we're in the Susitna area, to the west of here along several of the drainages. Again the critical time for that animal is the nesting season. Would run through May to early summer, even later summer, July–August time frame along the Gulkana, down here in the Fox.

Dall sheep was the third species that exhibited a potential for Level III impacts. In these two particular areas of Dall sheep, the area right north of the Alaska Range here and also the Dall sheep located in the Tanana hills area. Generally, the four-corners area of the Yukon MOAs and then again, another animal with a high economic value—sport hunting and subsistence hunting potential. And during those critical lambing seasons, again, would be another subset of this winter range area. The critical lambing area is predominantly late spring to early summer. A potential for Level III impacts if exposed to high activity—slight activity during those times.

Recreation: Several areas were identified for Level III and Level II impacts. Down here in the Fox MOA, the western and middle stems of the Gulkana, along the Scenic River, also a small portion of the Delta Wild, Scenic River, that would be encompassed under the proposed Fox MOA. The entire length of the Denali Highway and predominantly there, the trails off of that highway have a potential impact. A potential for increased Level III impacts in this general region. And one more slide here I want (?).

For Alternative B, that area would actually expand if this alternative was selected, the critical Level III impacts would essentially cover the main stem of the Gulkana, your trails along the highway there and also the larger portion of the Delta Wild and Scenic River. And there were no Level II or III impacts identified for any subsistence activities or the communities down in this area.

COL. HASSAN:

Okay, now that we've identified, and I want to add that many of those impacts that we identified, we got information from public meetings last year that identified certain areas that we needed to look at. And so the analysis was made more effective by the information we had with the public.

Well, how do we deal with that? Basically, it's a concept, but it's also a reality. And it's called mitigation. And this mitigation is how we deal with the training that we need to do, but the concern that we do not want to adversely impact any of these categories. What we do today, in the reality sense, is we work with various federal, state agencies, we work with U.S. Fish and Wildlife. For example, along the Yukon-Charley River where there's a high concentration of Peregrine falcons, we have instituted a two-mile restriction around the river and a 2,000 foot floor above that river. And that's in consultation with the wildlife experts and they have observed the Peregrine falcon in that area. In fact, the Peregrine falcon in that area is now flourishing. Some debate that it will be taken off of the endangered species list in the State of Alaska. It's a proven concept that we can put into place. We have also done, in terms of sheep lambing areas, the calving areas that we were made aware of, and we constantly seek out refining information about that during those critical periods, we restrict over-flight in those specific areas. We can put floors in that we will not fly below during the hunting season. We have already agreed with many of the local groups that we will not fly major flying exercises the first couple of weeks of September. We work with the BLM in the Fortymile area, we have identified specific areas where we will not conduct major flying exercises around the two-week period of the 4th of July. We have worked with local citizens. In fact, in the Circle Hot Springs and Central region, we have essentially drawn a 10-mile circle around there and a 35,000 foot floor that we cannot conduct supersonic operations...and I can go on. There is a list that's fairly lengthy that we keep in order that we mitigate our activity. And we can continue to do that with the help and information that you can provide us.

So with that, what I would like to do is just point out on this chart, we have assessed the impact of our activities as if we would fly at a 100 feet. We do not fly at 100 feet. There are no aircraft in the state that can fly below 500 feet, and in fact, the training that Major Siter has referenced several times, the low level training that our pilots do between 500 feet and 5,000 feet is roughly 20% of their total training. So they are not doing a lot of the majority of their training at that low level.

What I have depicted here, for example, is even though a pilot may be authorized to fly at 500 feet, if this was, in fact, the Yukon-Charley area, he would have a two-mile exclusion and a 2,000 foot floor that he would have to climb and stay away from that particular river. That's an example of how the mitigation would work. And our pilots are aware of that.

So in sum, we basically have begun a commitment and we intend to keep a commitment to work with as many groups that are interested in trying to come up with those areas that we can mitigate any potential impact that we have and your input is key to making that happen.

So with that, I'd like to turn the program back over to Colonel Heupel.

COL. HEUPEL:

Thank you. What we're going to do at this time is take about a five minute break. Restrooms and water fountain are around to the left. At the end of that break, I'll get the sign-up list so I can see who's signed up indicating that they want to speak. If you want to speak now, and you haven't indicated that, go ahead on back and check by your name and then we'll start into the public comment portion of the hearing. **(RECESSED FOR FIVE MINUTES)**

Ladies and gentlemen, what I'm going to do at this point, is let me point out, the people that want to speak, first, we do have a court-reporter here who's taking down word-for-word everything that's said tonight, both by us and by you. And this will become a part of the final environmental impact statement. So when you speak, what I'd like to have you do, is come up to the end of this table in the middle and address your remarks to me. If you've got questions, it will probably be either Major Siter or Colonel Hassan, asking the questions, and I'll refer it to them. We've got a microphone on the table down at the end that should be able to pick up your comments. I'd like to have you state your name and spell it also, particularly if--if it's somebody later on that hasn't indicated that they want to speak. Because I will open it up to everybody after I've gotten through everybody that's said that they are possibly interested in speaking.

I'm going to ask you though, to limit your comments to something under ten minutes. Hopefully, for many of you, perhaps around five minutes. I say that, we've got to be out of here by a reasonable time, somewhere between 10:30 and 11:00 for the janitor who's got to get this closed up and ready for school tomorrow. So I've got to put some reasonable time-limits on. And frankly, if your comments are the same as somebody else's, you're welcome to say, I agree with the comments by so-and-so and I want my comments recorded that way. And that would sure be indicated in the record and that would help us and make sure that everybody's able to speak.

One other thing that I didn't indicate, if you're interested in being on the mailing list in the future, including getting a copy of the final environmental impact statement, if you'd let them know back at the registration table, then we can get you on the mailing list.

Okay. And again, because we've got a court reporter, it's important that we have one person speaking at a time so we can identify who it is that's speaking. So, just one person at a time please. And I'm going to go on the basis of when people signed in, so the first name I have is Eric Nashlund. Sir, if you'd come up.

ERIC NASHLUND:

My name is Eric Nashlund. I have a few concerns here. One, under the no action proposal, Fox 2 MOA, which is a temporary, continues to exist. Really, the creation of Fox 2 MOA was a real mistake in as much as it does basically take in the Richardson Highway and Gulkana River system where it runs north and south. Under Proposal B, it's not really eliminated, it actually becomes absorbed by the new Tanana MOA. I—I have a definite problem with that. It shouldn't have been incorporated in the beginning, long before this process even started.

Also, we have a real problem here, I see, under the Proposal B. There on the eastern end on the Tanana MOA, there is a floor of 300 AGL. Now, I don't know if you're aware of it, but here the last several years, about half of the Nelchina caribou herd has been traversing through that area and wintering there. As you are probably well aware, there was a study done on high speed aircraft over Labrador, jointly funded by the Canadian Department of Natural Resources, which pointed out, although it

dealt with short-term effects, it did point out that the cumulative effects, energy expenditure by caribou, could result in a much higher winter mortality. Because of that, I think that this, if Proposal B were to be accepted, the eastern end of Tanana definitely would have to be raised up to a minimum of 3,000 feet just so that extra burden isn't placed upon the caribou. Because during the winter, I mean, like any animal, they're struggling just to make it through the winter. And the startle factor would, you know cumulative, might be enough to just tip the odds out of their favor.

Also, I have a real problem with Proposal B, and that is it basically takes out a VOR vector that takes folks to Tok. Now, I don't know if you're aware of it, but a lot of folks who are flying that route, aren't flying just to Tok, they're going on to Dawson or Whitehorse for the weekend. And when you're talking about private pilots, very few of them can afford to go the long way around. Whereas—there's no doubt about it, the Air Force has much deeper pockets than we do.

Also, if I'm not mistaken, it looks like under Proposal A, Fox 1 would become, which is temporary right now, would become a permanent MOA. And I just as soon would see it remain as a temporary. Thank you.

Oh, I had one other thing here also, and that was a — two other things. One was presented as a — 1) transonic flight would be authorized only above 5,000 AGL. Well, from my experience with the military, the only time you went transonic is if you were dashing into or trying to dash out of something. And bottom line, if you're in there too hot and heavy, down at 5,000 feet, you've already made a mistake if you're talking about dashing out. And I'd like to see the transonic raised a little bit higher. The big reason is, is once again, is the startle factor. If 5,000 feet being subsonic, there's not a problem, I don't see.

And then there's one other thing that was presented here. I think it was by Colonel Hassan, who said, about—no, excuse me, it was the Major here, I believe—talking about realistic combat and if you have F-15 going against F-15 it's not really—uh—what was the word sir? Realistic. Bottom line, an F-15 against an F-16, you're talking about comparable aircraft, although as I recall, the F-16 does have close air-support capability. Obviously, the F-15's not going to be going against an A-10, because it is a totally different aircraft. So I really question, you know, the validity

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behind the thing of realistic combat. When you put an F-15 against an F-16, because we're talking about two pilots, same Air Force, same type of training, you know, perhaps this would be realistic if we were talking about a joint forces exercise with Canada or something. But to compare—you know—an F-15 against an F-16, we're pretty much in the same ballclub as far as I can see. Thank you.

COL. HEUPEL:

Thank you, sir.

Okay. Ah, let's see, I've got Larry Gonek (indicated he didn't wish to speak).

Thank you, Alfred Lee.

ALFRED LEE:

No, I'll pass.

COL. HEUPEL:

Okay, sir. Lee Adler.

LEE ADLER:

My name is Lee Adler, I'm a twenty-five year resident of this area. Presently, the Commander of the Gulkana Civil Air Patrol and bush pilot and formerly a wildlife biologist in the late '60s and early '70s.

I haven't read the impact statement so I don't know all of the ramifications. Speaking for the Civil Air Patrol, I suppose that everything could be worked out with the Memorandum of Understanding, or some kind of agreement, as our major mission is search and rescue and I don't—I still don't know about a day when you're—when it's hot—if we'd be allowed to search. I don't know. That's a question and I don't know. And I don't think the Civil Air Patrol would have a problem with this program.

Speaking for myself, I know that this area of Fox 1 and 2 is probably one of the most heavily hunted and flown areas in the state. Sporting, recreation hunting and this sort of thing. Any restrictions, we wouldn't really like, I know that. The impact, as Mr. Nashlund has said, would be probably pretty severe on the caribou and possibly Dall sheep. I remember an instance of the Dall sheep being scared off a bluff and killed by pilots in Supercub, just scouting, pre-season scouting. One of the first things that happened here, I've investigated an instant like that where a supercub pilot had scared a ram off a cliff and broke its neck. And calving season is a very serious time,

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but you already given it some — quite a bit of attention.

I would like to know, maybe after we get done giving our statement, if you could just give me a statement of what—what impact this will have on me as a bush pilot and the days that it's hot. What am I going to have to do? How is it going to affect me? I really don't know at this point, exactly how it will affect me.

But I do have some concerns, because, in fact, on wildlife and the impact on the Victor Airways and also the use of private aircraft. Lately there's been some concern about—I don't know if the Air Force is involved—a lot of people have been saying they have been seeing unmarked aircraft flying around, particularly black helicopters. I don't know. Does the Air Force know anything about that?

COL. HEUPEL:

No.

LEE ADLER:

I had another comment. It slipped my mind, so I won't talk about it. Thank you.

COL. HEUPEL:

Okay, could you address the...

LEE ADLER:

Oh, one more thing.

COL. HEUPEL:

Go ahead, sir.

LEE ADLER:

I had already mentioned. I did want to make a note of this incident. I was out on August 6th, flying just north of Klutina Lake, between there and Tazlina Lake, and I was flying in the mountains so of course it wasn't level. The ground level under me was very irregular and I was probably flying about 300 feet off the ground, on an average, and two F-15s came in behind me very close and I could feel a little turbulence. They whistled on by, and they made a (?) and came back, not quite as close. I was a little bit alarmed about that. I didn't know what they were doing. Maybe they were making simulated passes on me. But I noticed it's not in any of these areas, proposed or otherwise. I have seen other aircraft in the Wrangell Mountains flying up

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 the river valleys, while I was sheep hunting. I saw a four-engine camouflaged planes, it could have been Army, I don't know. But it was going right up the river valley and probably about 300 feet off the deck. And that was five or six years ago.

COL. HEUPEL:

Thank you.

LEE ADLER:

Thank you sir.

COL. HASSAN:

Okay, I'd like to address two things. One is, you had a question about what would it be for you to fly. And the other one is the mitigation and the concern of this gentleman for the wildlife.

We have — hopefully, if you get a chance to go through the document, we acknowledge that. And in our—in our view and looking at studies that have been done, we're going with the best information that's available. And that is, that we are going to not overfly these areas. For example, in the Fox MOA, the floor is 3,000 feet. And in other specific areas, during critical periods we've already instituted measures to not overfly those areas or to even raise the floor higher. I'm not going to tell you that we're perfect or that we have all the answers, because we don't. But we are as concerned about that as you and we are going to continue to refine that over time.

In fact, this summer, we brought noise monitors up to the State of Alaska, paid for studies to be done with these noise monitors, placed them in various configurations around nesting areas, around known areas of herds, took various measurements so that we got hard information that said, "Here's where the kinds of noise that you would experience if you moved the planes to these kinds of elevations and these kinds of 'keep-out' distances." So we are continuing to refine that data.

I'd like for Major Siter to give you sort of, what would your life be like with a Fox MOA.

MAJ. SITER:

You mentioned in your bush flying—what areas specifically are you flying? You talking the Fox area?

LEE ADLER:

The Fox area, usually...

MAJ. SITER:

What altitudes, sir, are you flying at?

LEE ADLER:

Pardon?

MAJ. SITER:

What altitudes, sir, are you flying at? What altitudes, sir, are you flying at normally?

LEE ADLER:

Oh, usually from 3 to a thousand feet—from 300 to 1000 feet.

MAJ. SITER:

The—essentially with the floor 3,000 feet above ground level, if this were to become a permanent airspace, again, it would be a maneuvering airspace, again trying to do some of the training that I described earlier. Dissimilar type of training, as well as composite force training. All that training would have to be done 3,000 feet AGL or higher. So essentially, your activity would be below that, is that correct?

LEE ADLER:

Yes.

MAJ. SITER:

Essentially, we also have airborne radar systems. We can see your aircraft, including Supercubs, because of your engine parts. Given the fact that you're off the—off the terrain and flying a little bit higher, that helps us to find you. Also, squawking, can't emphasize it enough, squawking, Mode 3-1200, because all the F-15s, both the "C" models and the "Strike Eagles", have an air-to-air interrogator, and they can set that Mode 3-1200 and identify your transponder, if you're so equipped and have it tuned to that squawk. So again, those are other ways of determining that you're out there. Realizing again, if you elect to fly above 3,000 feet, we're still looking for you with the radar, and you're entitled to fly at that altitude. As we've said earlier, this is again, we're working on confining our activity, again, three thousand feet or higher in that area.

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LEE ADLER:

So on the days that you're active in those areas, as long as we go below 3,000 feet, we just go, we don't have to tell you?

MAJ. SITER:

The airspace does not exist below that altitude, sir.

LEE ADLER:

Then I didn't need to get up there and make comments on it, then.

COL. HEUPEL:

And the procedure, if he is going to be above the 3,000 feet...are there any procedures that are suggested or that they can use for going in?

MAJ. SITER:

Again, it's squawking and talking on the radio and letting the FAA know where you are. I think those are the keys.

COL. HEUPEL:

And the FAA can tell them if it's a hot...

MAJ. SITER:

Yes, the FAA--part of its responsibility, again, it's the regulatory agency for all airspace in America, not just the civilian air structures, but the military structures as well. They are aware of whether the military has activated the airspace and whether it's hot. So they're the key to determining the status of the MOA.

COL. HEUPEL:

Okay, let's see, Patti Billman was a maybe.

PATTI BILLMAN:

Can I wait 'til the end of the meeting? The only thing that I...I'd like for you to be more specific when you get the big groups in from Canada. How often can we expect it? Could you tell us a little bit more about the Fox MOAs. What can we expect? How many times a year are you going to be bringing people in from Canada? More details, please.

MAJ. SITER:

Yes. When we were here last fall, when we described the way we train, I talked about the building block approach. I don't recall if you were here or not, ma'am.

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The way the Air Force trains is fairly similar to the way most teams train. Whether it be competitive sports or building a business. You start with the basics. What we do is we do this one-on-one drills and two-on-two drills. I talked earlier about, we'll go out with two F-15s and they'll train against each other. We'd also like to be able to train against other types of aircraft. Okay. We start with that. We then build a two-on-two and then we go to composite force training where we'll now take experienced pilots and put them with other types of aircraft, so they learn how to orchestrate tactics together. It's kind of like being on a football team where you've got a quarterback and a halfback. They're practicing hand-offs and you've got a line practicing blocking drills. You're not running a full-up scrimmage yet, but you're practicing a limited part of the team. And from there, you take those components and then you put all 11 guys on the field against another team of 11 guys that are essentially -- to practice, so that when you get your real game on Saturday you've run up and you've run all your full-up plays. That's the major flying exercise stuff. Now, as specific comment to the participation of other nations, I talked about combined training, it's not just America hosting other foreign and nations' Air Forces to train together, but rather, us also going overseas and training in Australia, training in England and Canada. In the past, the Canadian Air Force has usually participated in about one exercise per year. The British Air Force normally has participated in one Cope Thunder exercise per year. We participate in what's called Maple Flag, which is the Canadian major flying exercise. They have other ones, but that's kind of their premier one, if you will. I have flown in that several times in my career. And again, the idea is to exchange information and capabilities so that we know how each other thinks in peacetime. So that if we were to go into an actual scenario in some hot spot in the world, and you can already read the papers, that's been happening quite a bit. The ability to form together quickly is critical. If you've done the groundwork in advance, then you're going to accelerate the ability to do that in a contingency where you may not have a lot of time to practice before you get into an actual operation.

COL. HASSAN:

Now what would you expect to--what is a major flying exercise? We did three of them this year. And it's a two week duration over ten days. And they fly two

times a day for about two hours. Two hours in the morning, two hours in the afternoon. And essentially what they do is, they form up, they fly out to the extreme areas. So what could you see—let me go to a little smaller scale here—but what would you see over Fox? Here's Fox. You know, they would—planes would take off from Anchorage and Fair-Eielson. And some would form up down here and some would form up up here. This is basically done at fairly high altitude even though this floor, for example, is 3,000 feet. We're talking about at the beginning of the exercise, the tankers are there, the airborne warning—the AWACS planes are there, and the fighters get gas and they get, as Major Siter has said, sort of formed up. And then at the end, sort of toward the end of that two-hour period for about 30 minutes, is when the actual exercise takes place. And essentially, because the bombing ranges are centrally located here, you in essence have activity going this way. So that the planes, in a representative exercise that would start high here, would begin to go down this way here or if they were high here, they would begin to go down that way here and they would engage each other.

So, that happens over a two-week period. This year it happened three times for about a half-hour in the morning and a half-hour in an afternoon is when the active engagements occur. This year the Canadians didn't participate at all in this particular season of Cope Thunder. The British did this year. So, it's all of the benefits that Major Siter talked about and what we have already instituted is, for example, learning from experience, learning from input. We avoid having these exercises around the Fourth of July and around the first part of September. And we are looking at schedules in the future and trying to flexibly move these things to have the minimum impact possible, but still get them done.

Is that too much?

PATTI BILLMAN:

I'd like to go ahead and speak.

COL. HEUPEL:

Come on up to the table, if you would.

PATTI BILLMAN:

Patti Billman and I live in the Lake Louise area. I would be very much against Proposal A or B. Combining Fox and Tanana MOAs, you've covered the entire Nelchina caribou herd migrating pattern. In the recreational EIS statement, they didn't even begin to cover the private recreation, the cabins, that go on in Fox L.

COL. HASSAN:

That's this area.

PATTI BILLMAN:

No, to the left. I wasn't even aware it was a temporary MOA, but I would be—if that's our only alternative, I would prefer to keep it a temporary MOA. We've had, of course, military aircraft going over the lodge for a week straight last year, right at dark. It couldn't have been very high because they'd come thundering through and it'd shake the place and the fellow that has a cabin out a couple of miles from us said they came right over his place, right on schedule. They may have been lost once, but they weren't lost seven times. And I'd like to read this one article that was just in the Alaska Airman Association's September/October 1994 newsletter, and it's written by one of your pilots. It's called "Heads Up in the MOA."

Have you ever considered what goes on in the MOAs of Alaska? Do you operate thinking there is lots of room in our big sky for see and to be seen flying? Ever flown an IFR? This article might be of some help. I've been flying in the military for over eight years now and am currently flying a fighter in Alaska during the week and my own aircraft on weekends. This is my second year in the Great North and flying is about the best it can get, both from the military and private viewpoint. The MOAs in Alaska are sort of unique. They have a great deal of Class G airspace in them, unlike Outside. This presents some special considerations for those of us who operate in the MOAs. Most military pilots are used to MOAs being in some sort of controlled airspace. This isn't the case here. Since most of the airspace is uncontrolled, the pilot is his own clearing authority. IFR traffic can be pretty much anywhere we operate in the MOA and we may not know about it. Also, as long as military pilots are under radar monitoring from a military radar unit, they can conduct intercepts in IMC conditions. I'm not sure what that means. IMC?

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MAJ. SITER:

Instrument Meteorological Conditions, i.e., in weather.

PATTI BILLMAN:

Like IFR?

MAJ. SITER:

Yes.

PATTI BILLMAN:

Thank you.

There have been a few occasions where stranger traffic has been intercepted to see who they were and what they were up to. As you can see, flying in MIC and the uncontrolled portions of the MOAs may have some unforeseen hazards.

Here's some typical training that goes on in Stony, Naknek and Sustina MOAs. Keep in mind that this is from fighter aircraft training view. Basic fighter maneuvers—dogfighting. This takes place from about 25,000 MSL to around 5,000 AGL and involves two aircraft. Speeds range from 450 knots to 100 knots with extreme vertical maneuvering. Air combat training—us versus them. This includes anywhere from four to question mark number of aircraft. In addition to fighters, ACT may include bombers, C-130s and Learjets. Air speeds range from supersonic to 350 knots. Altitudes anywhere from 50,000 MSL to 500 AGL. Expect extreme vertical maneuvering, rapid turn reversals, and fighter formations exploding like Thunderbirds. The Yukon airspace is the Cope Thunder area, large force exercises take place there all summer. All types of aircraft from all over the States, Canada, and other countries participate in Cope Thunder. Large numbers of aircraft, 20+ are common. Again expect fighters at any altitude, airspeed, and attitude. And when you see one, you can bet there are a few more close by.

This just touches on some of the training that takes place in the MOAs and doesn't cover low-level routes, tanker tracks, etc. Be aware if the MOA you want to traverse is hot and keep your eyes out. An IMC you may consider changing your route or wait until the MOA is not in use before flying through. The big sky area is nice, but doesn't always work, especially in a MOA.

The article was sent to the "Airman's" by a member in good standing.

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But, anyway. Thank you.

COL. HEUPEL:

Thank you. I believe it's Jutta Kernke. Would you like to speak, ma'am. In fact, I'll have you go down to the microphone.

JUTTA KERNKE:

I'm Jutta Kernke and I share the concerns that were mentioned earlier. Regarding the environment, wildlife, and also how it impacts recreational areas. The question I have, and I don't know if this is the right place to ask, we're mentioning so often, altitudes—3,000 feet, 5,000 feet level, whatever. I really don't understand the impact where your type of fighter planes, you know, is 3,000 feet it sounds like it's higher than the bush pilot flies. But, you know, I think for a supersonic, for example, flying at 5,000, we would still hear all the noise and get the impact as much as if it were flying much lower.

Is that explained in the documents or can you briefly explain that?

COL. HASSAN:

Yeah. Fundamentally, your first comment is correct. In that when we have a floor of 3,000 feet as Major Siter suggested here, that should pretty much be de-conflicted with the normal guys who are out here flying low level. There are some misleading statements in that other document there that we can address later. But frankly, there is—we have to de-conflict IFR traffic, that's the FAA's responsibility. That is not true that the Air Force does not de-conflict that.

In terms of supersonic operations, the problem we have with supersonic operations, it's not a straightforward thing. First of all, we have assessed it to 5,000 feet. If you did supersonic operations at 5,000 feet, what would that impact be? Unless, it's a mistake, we do not fly supersonic operations at that low of an altitude. It's not worth our training experience. Flying supersonic uses a lot of gas real quick and so when a pilot goes supersonic, it's got to be for a specific purpose. I will say 95% of the time, it's got to be fairly high up.

Now, even then, you still may hear supersonic boom. The problem with supersonic is, is that it depends on the direction that the airplane's flying at the time that it goes across the speed of sound, because the wave comes off the nose of the airplane. It also depends upon the atmospheric conditions. So, for example, a pilot could fly a supersonic operation on Monday, at 20,000 feet and you may not hear it. Tuesday, he may fly a supersonic operation at 20,000 feet and depending upon what the weather conditions are, you may hear it. But in the main, the higher we are, the less noise you will hear. That's the general relationship. But again, it's—it's somewhat dependent on the weather.

JUTTA KERNKE:

Thank you.

COL. HEUPEL:

Thank you. Jack Hansen.

JACK HANSEN:

Jack Hansen. H-a-n-s-e-n.

My concerns, well first of all, I'd like to agree with what Mr. Nashlund said and also Patti Billman, I concur with their concerns. But in addition to that, the Spectrum analysis of the Level II and the Level III effects on those animals, I think were grossly underestimated. For example, the swan area in Fox 1 has to be at least three to five times larger than what was depicted on that thing.

Jutta and I flew to Clarence Lake, which is in Fox 1, and came back to Lake Louise today and probably saw four, maybe five hundred swans. About half of which were young ones. And we were not looking for them, we just saw them.

The Nelchina caribou herd wasn't even mentioned in that and yet it was pointed out by Patti as covered in Fox 1 and 2—the Tanana, in the B, would cover the whole area that the Nelchina herd, which is the largest hunting herd, where you have road-accessible hunting in the State of Alaska. The hunting season, by the way, usually runs from early August, maybe as early as the 10th, to September 20th. Which is a lot longer than just a couple of weeks in September.

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My own experience, I've seen F-16s or, I guess they were 16s, I don't know what they were—up in the Clarence Lake area where I have a recreation cabin. I take a lot of people there in the summer time. I've seen F-16s up there considerably lower than 3,000 foot AGL level on numerous occasions. One occasion over in the Tonsina area, I came off the Tonsina Glacier, and I think it was an A-10, it was an airplane I'd never seen before at the time, crossed in front of me, probably about 300 yards, at about 200, yeah—or 200 feet above ground level up in the mountains.

I know that you did a lot of research on the noise level, but I assume that those instruments you had recorded decibel levels and things like that. Airplane fighter pilots flying at 3,000 feet or 5,000 feet AGL, I don't think they have the chance to see the reaction to those decibels, whatever they were, on the ground with caribou or moose, or any other animal, or swans.

And since I fly at those lower altitudes, two or three hundred feet most of the time, I can see what my 180 does to those animals and birds and I know that an F-16 or -15 is going to have dozens of times the impact that my airplane does. So I think it's a whole lot greater than what you might imagine just by recording whatever number of decibels you got from an altitude of three- to five-thousand feet.

Another thing I've noticed about governments over the years is that there's always an additional piece of area that they want to cover or control. More laws passed or MOAs, but I don't see any MOAs being deleted here. So to me, it's an accumulative effect and I would assume that five years from now or ten years from now, at some point, there will be another MOA that you want. And so I don't want to see anymore MOAs created, ever. At least not in that area.

I think the least you could do to take a big impact off of Fox 1, for example, is to move the lower—the southern edge of it, at least to the Susitna River or to the Denali Highway. Then you'll get away from most of the Nelchina caribou herd, or at least a good part of it and a good part of the swan nesting area. And a lot of the sheep area.

(EXCUSE ME, I'M GOING TO CHANGE TAPES HERE)

(SIDE ONE, TAPE TWO)

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When you went through, to be honest with you, the feeling that I got, while you made the presentation, was that I was being, that I was in a flim-flam, sort of, you know. I was given all kinds of information. All kinds of slogans, all kinds of terminology, much of which I didn't really understand. And I would really have appreciated the opportunity to say, "Wait a minute. Tell me what that means. Or wait a minute, I don't agree with that statement that you just made." So I think it would help if you slowed down the presentation and allowed people to comment about statements. I know there were so many of them that you made, Colonel Hassan, that I just flat disagreed with, but I didn't have a chance to write it down or talk to you about it.

When you talk about the fact that you need Fox 1, between Fairbanks and Anchorage, because it's centrally located and it's closer and the airplanes can get there. And yet, a few minutes ago, you talked about the staging, where they take off from Fairbanks, go to their refueling plane. And from Anchorage, they take off and then go to their refueling plane and then they are going to meet in Fox 1, you would think. Well, if they're going to go up there and have refueling planes and all that stuff, then you could just as well refuel to the west and go out to one of those other areas and you wouldn't need Fox 1 in that case.

And I've got a couple of questions. You talked about that you need this training to be able to get to different places around the world for hot spots. I'm not sure, but I'd be curious as to how many airplanes, or how many squadrons, left Alaska to go to Desert Storm. Do you know that?

COL. HASSAN:

No.

JACK HANSEN:

How many are--went to stage for invasion of Haiti?

COL. HASSAN:

We didn't have any fighter squadrons staged for it, sir.

JACK HANSEN:

Well, what hot spots have squadrons from Alaska gone to in the past 10 years?

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COL. HASSAN:

None. Because our focus has been on the Cold War, sir. We haven't had mission taskings to do that.

JACK HANSEN:

But now you're going to?

COL. HASSAN:

Now we do. Yes, sir.

JACK HANSEN:

And you said Alaska is centrally located so you can get faster access?

COL. HASSAN:

Yes. We can go faster to Europe than the same fighter unit stationed on the East Coast of the United States because we go over the Pole.

JACK HANSEN:

And so you could have gotten to Desert Storm quicker than people in the East Coast?

COL. HASSAN:

The same F-15E squadron from Anchorage has a faster flight time profile than from Seymour-Johnson, in North Carolina.

JACK HANSEN:

Okay, that's all I have.

COL. HEUPEL:

Thank you, sir.

Mr. Dan Billman is the next person I have.

DAN BILLMAN:

My name is Dan Billman from the Lake Louise area. I agree with many of the statements of the other speakers, but I think that we need to detail some areas in Fox 1 that I feel are also Impact III areas. One area that Jack was mentioning that he was in today, is the Clarence Lake calving area. The Clarence Lake/Watana area is a major calving area for the Nelchina caribou herd. Although the caribou herd uses a lot of that area during the summer for feeding and may be considered also high impact or an Impact III area.

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And I think, as they've stated, we need to outline areas that are Impact III areas for waterfowl. Not only the swans, but lots of other waterfowl in the area.

Another thing of concern is this low level enroute, and maybe you could explain that to me a little bit. I just, in visiting at break, found out that there's a low-level enroute that's down to 500 feet through the area that I'd sure like to be aware of. And—uh—and could it be possible that they don't need to be at 500 feet, that they could also be at 3,000 feet in the area? Could you explain that route to me?

MAJ. SITER:

The system you're talking about, again tonight we've been talking about military operating areas, which are our airspace to do maneuvering training or to transition to the bombing ranges. What he's just mentioned is a military training route. This is another type of airspace we use for specialized training and this is navigation training. What we do here, a route is defined and there's like a point "a", "b", "c", "d" and the pilot's practicing, precisely navigating, and staying on a certain timing and then he reaches the end of the military training route and then he'll either climb and go home or he might very well then transit to some military operating area airspace and do some other type of training. And the route you're talking about, there are routes that go through the Fox area, like you said. The altitudes that are selected are based on, again we do—we do an environmental assessment of that, determine the potential impacts, and altitudes along segments can vary. Just because one segment starts at 300 feet doesn't mean the whole route on other segments has to be that same altitude.

If there is a specific segment, for example, where there is some—which you believe to be an impact, that's why we have our—our phone numbers that you can contact us to let us know what you believe that impact to be. And one of the things that we do, again we talked about the 11th Air Force Noise Sensitive List, we can look at entertaining and considering changing the altitude along that segment and raising it. And we have done that for some of our other military training routes throughout the state.

So my suggestion, sir, would be that you—you avail yourself of that, give us specific where your particular area is. Whether it be a—a—you're talking about caribou calving area, we would like to know about that and we would consider mitigation.

DAN BILLMAN:

Well, it's—I think it's important, not only the MOA, but that those low-flying areas. I think a couple of different people have mentioned that we've seen a lot of—in this last, I would say year, we've seen a lot of low-flying aircraft below 3,000 feet. I encountered a couple of, I believe F-15s, at about 500 feet over Susitna Lake. And it wasn't—I didn't feel a risk of mid-air, but they were flying quite fast. I'm sure not supersonic, but quite fast. And it's kind of startling when you're at 500 feet and here these two guys cruise by.

I guess what some of the concern may be, if we're seeing quite a few aircraft below 3,000 feet now, in an area that's supposed to be an MOA of 3,000 feet, what will happen if it became permanent. Or how much more would those—those—those low-altitude routes be utilized.

Another thing that I'd like to make comment, it seemed that the Tanana proposed MOA, it doesn't seem like there's—it's not proposed as temporary, but a proposed MOA, it's so full of Impact III area that I don't even see how it can be considered. It—to me it shouldn't even be considered as an area because of—because of the VOR routes and because of the flying also in that area, recreational flying. And—and so much Impact III, how can it even be considered?

COL. HASSAN:

Let me just address that point.

That alternative was given to us to consider. And by the way that this process works, we have to consider it. That was in consultation with other federal agencies and some of the public hearings we attended. That alternative was asked—we were asked to look at that and in good faith, we had to look at that and we did, and we analyzed it, and now we have come forward and said, here are the impacts that are associated with that. And that has to go, as Colonel Heupel mentioned earlier, to the decision maker who will see where impacts occur and he has to make a decision based on those.

DAN BILLMAN:

So hopefully, it will be eliminated because of such an environmental impact. Okay, thank you.

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COL. HEUPEL:

Thank you. Thank you, sir.

Let's see, the next person that I've got is Tom Taube.

TOM TAUBE:

My name's Tom Taube. I'm a fishery biologist with the Department of Fish and Game here in Glennallen. Our game biologist, Bob Tobe, was unable to make it, and he had a couple of concerns concerning the Nelchina herd. I guess I agree with Mr. Billman and Mr. Nashlund, or Bob agrees with the calving area should be a high area concern and also the wintering areas. Another thing he wanted to mention was that he's got quite a few radio-collared animals out there and they spend anywhere from two or three months in the air tracking these animals, doing animal counts, caribou-moose counts, generally below 3,000 feet, so it probably wouldn't be an implication there. Also, the fishery biologists, we do also a lot of salmon surveys toward the end of the summer, and so we're out there quite a bit. But again, the flights are fairly low, so it probably won't be a case where there'd be any implications there. I guess the point of concern would be any of these low-flying direct flights.

I know Bob said it last Friday he was out and they had to veer away from a low-flying jet. And I assume he was below 1,000 feet. That's unless (?).

Those are just a few things. I think most everything's been covered by the people here that the State's concerned with. And I thank you for your time.

COL. HASSAN:

I'd like to comment on—we have—we have a meeting scheduled with the Alaska Department of Fish and Game. And recently, last year, from the scoping sessions, one of the issues that BLM brought up was the firefighting activities. We have, over the winter, entered into a Memorandum of Agreement with the firefighting element. We are now in real-time contact with one another and they're satisfied that we can de-conflict activities. Similarly with National Park Service, they then went off of that agreement and we started working with them.

Obviously, all of us in the summer, you guys got your work you got to do in the summer. They have as well. And we now have a two-way communication going on. Where we are going to be, what times we're going to be there. We expect over

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this two-week period we're going to be in this general area tracking caribou or whatever. Those kinds—that dialog has now been established and with your suggestion tonight, I'll bring that up at the ADF&G meeting and if they're interested in establishing that kind of de-confliction and awareness, we've already got the precedent going.

TOM TAUBE:

It seemed a like a lot of the areas have been covered.

COL. HEUPEL:

The next name I've got and I'm having a little difficulty reading it—would be Arthur Wikel.

ARTHUR WIKEL:

That's me. I guess I'll just pass for now.

COL. HEUPEL:

Okay, sir. That's all the people that have indicated "yes" or indicated a "?" or "maybe". Let me ask, is there anybody else that now may have said "no" before, but has changed their mind and would like to make a statement.

Okay, sir, if you'd go ahead and come up to the microphone and state your name.

CHUCK McMANN:

My name is Chuck McMann and I live in the Gakona area.

I guess I would agree with several of the people here also. Mainly, I would just like it to go on record that I'd rather not see it take place, there. I'd rather see it take place away from the road systems and, you know, most of the people that it would cause conflict with. But, I appreciate the fact that you have to train and—and also I appreciate the fact that you guys are there to protect us, too. So—so, if this has to be done, and I'm sure you've looked into it more than I have, maybe it has to take place in this area to be feasible. I don't have a whole lot of problem with it, because, like most of these guys, I stay under 3,000 feet, but my concern would be the guys that stray out of that 3,000 feet down lower, and what's to say that might not happen a lot. And—and if there could be a way to limit that. I don't know how you would limit it. You know, you can tell your kids "no" and they'll do it anyway. But some way to track them where you know that they're at 3,000 feet or above. I don't know the

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answers to that, but that would be my main concern, keeping track of the guys that would stray out of that proposed airspace.

COL. HEUPEL:

Thank you sir.

COL. HASSAN:

Just to make a quick comment.

We have a—we need your help. If you feel as though there are folks that have swayed—strayed out of areas, as we had an informal discussion before this start, we have instituted an 800 number for folks to call. For those of you who want to take it down, it's 1-800-538-6647. That's 538-6647. We have had—we had complaints in the northern part, up in this area, that came up repeatedly. We took action. We can track where pilots go. And for those several pilots that were found to have done it more than just by mistake, because they're pilots—even though my fighter pilot friends would tell you they never make mistakes—but they do make mistakes, and they're real. But there are some that tend to stray and we took some pretty severe action against two specific individuals. And not surprisingly, we haven't had a lot of complaints in that area.

So if in this area, and we've got some information tonight, there happens to be some things going on—basically all we need is, we don't expect everybody to be an aircraft expert, if you could call the number, give us the date, time of day, roughly was it one airplane, two airplanes, whatever and pretty much what you saw. We will commit to get back to you and let you know what—we will—we will institute an investigation on it.

CHUCK McMANN:

Then when Dan Billman talked to you that was the first I knew about any airways. Now is that—

COL. HEUPEL:

Could you come up to the microphone, sir? Mr. McMann.

CHUCK McMANN:

When Mr. Billman spoke, it was the first I'd heard about any low-level airways through this area. Is that—so is that totally different from this MOA?

COL. HASSAN:

Right.

CHUCK McMANN:

And—and it's going to happen all the time. Or has it been happening?

COL. HASSAN:

What we're going to do is, we need to go back based—what I will do is, based on—we just instituted those in the past year. And what we need to do is, based on the input we got tonight, is go back and take a look at where they are and—and just see, as Major Siter said, a lot of those we have adjusted based on concerns from folks like yourself. So if there are problems with those that were unforeseen on our part, we are committed to fix that. So we need to go back, take a look at exactly where they're located and let you know if—if that's something we can adjust.

CHUCK McMANN:

So possibly, some of these sightings have been just that.

COL. HASSAN:

Just the military training routes, right.

COL. HEUPEL:

Are those charted?

COL. HASSAN:

Yes.

MAJ. SITER:

There again, they are also on all the aeronautical charts, the sectionals. And again, some of them are recent. When we say they're new, we've had MTRs throughout the state for a long time. We've revised some of the routes and they were charted last year. And once they're charted, then and only then, can the Air Force actually use them. So some of the activity you might be seeing at low altitude are on these newly charted routes.

CHUCK McMANN:

You mean I've got to get new sectionals?

MAJ. SITER:

Yes, sir.

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COL. HEUPEL:

Before I--somebody mentioned black helicopters. I'm not an aviator, but to my knowledge, the Air Force has very few helicopters.

COL. HASSAN:

We've got four hel--we, the Air Force, has four helicopters in the state. They're owned by the National Guard and they're all search and rescue as my friend from the Civil Air Patrol can tell you. And they're not funny, fancy things, they're just out there trying to save people's lives. So I'm not sure what these black helicopters are. They're--they're dark in color, but they're search and rescue helicopters. And there's only four of them. There's three...

UNIDENTIFIED WOMAN:

Why are they unmarked?

COL. HASSAN:

Why are they unmarked? The search and rescue helicopters?

UNIDENTIFIED WOMAN:

No. The ones that are flying around this area have no markings.

COL. HEUPEL:

Okay, ma'am. Just a minute. ma'am. Would you come up? We need to for the record.

UNIDENTIFIED WOMAN:

You're not picking up any questions from over here?

COL. HEUPEL:

No, it's very difficult.

REPORTER:

I don't know who's talking and we can't identify people. We need to know who's talking.

LAURIE ROUD:

My name is Laurie Roud. And I just want to know why there's no markings on the helicopters?

COL. HEUPEL:

I think the answer is, we can't answer that because we don't have any such helicopters.

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LAURIE ROUD:

They've been flying over our particular place virtually every weekend and it's been two to three at a time. And they're very low.

COL. HEUPEL:

If the Air Force had helicopters, it might be able to address it, but the Air Force does not have helicopters and that's why I brought that up. Because, we've heard, at one of the other locations and I don't remember whether it was Tok, somebody mentioned black helicopters there, too. The Air Force doesn't have helicopters.

The Army does have helicopters. Whether they have black ones, I can't tell you. But I think the bottom line is, we can't answer why there might be unmarked--or let me also say, being in the Air Force, I can tell you that with the camouflage, some people have asked about C-130 aircraft and said they can't read the numbers. Since things have gone to camouflage, paint schemes on most of the aircraft, there are numbers there, but I can't read them either, unless I see them parked on the runway. When they're flying over, you can't see them. But--but those aircraft are not black either.

COL. HASSAN:

But we don't need numbers if you're going to report something. If you call the 800 number, I don't need numbers. I just need where you are, what time of the day it is, you know, what day of the week it is...

LAURIE ROUD:

It's been annoying...

COL. HASSAN:

...and I can track it.

LAURIE ROUD:

...for at least a month.

COL. HASSAN:

But I can't deal with the helicopters. I mean I don't...

LAURIE ROUD:

Then who do we contact for that?

COL. HASSAN:

I would call the Army. It's the only other place in the state.

BILL HAM:

If it's on weekends, it's probably Army Guard guys and that's who you'd want to contact. Especially if it's weekend flying. That be the predominant time that they'd be out there.

COL. HEUPEL:

The lady with the green blouse. You'd raised your hand. Ma'am, if you'd come up?

K. J. MUSHOVIC:

I have several questions, but like the gentleman said earlier, it's very difficult to ask something when the topic comes up within this forum. My name's K.J. Mushovic.

COL. HEUPEL:

Thank you.

How--would you spell the last name please?

K. J. MUSHOVIC:

M-U-S-H-O-V-I-C.

I just couldn't restrain myself from asking this one question when the topic came up again just now. You mentioned earlier those--those training routes. And you said there were EISs done on those?

MAJ. SITER:

No. Environmental assessment. We talked about is that they were assessed and then they were activated, approved by the FAA and charted last year.

K. J. MUSHOVIC:

And the Eas, were they public?

COL. HASSAN:

The environmental assessment?

K. J. MUSHOVIC:

There was no way for the public here to comment on the fact that they were being considered, analyzed, approved?

COL. HASSAN:

The environmental assessment process was completed--it was done in 1992. I was not involved in it, but in any environmental assessment process, there are public comment periods.

K. J. MUSHOVIC:

Yeah, that's what I would think.

COL. HEUPEL:

But there's normally not a hearing involved with any assessment.

MAJ. SITER:

The environmental assessment for MTRs in Alaska was released in the March and April time-frame in 1993 and there was, in accordance with the National Environmental Policy Act, a public comment period regarding the environmental assessment.

K. J. MUSHOVIC:

Maybe just an ad in the Anchorage paper or something? That they were available?

MAJ. SITER:

The--the fact that it was available for comment, yes, was advertised.

K. J. MUSHOVIC:

Just in Anchorage, probably? Do you have any idea?

MAJ. SITER:

I--I can't comment on that. Again, I was not part of that team.

K. J. MUSHOVIC:

I--I just don't remember it being publicized in this area. Not to the extent that you've been publicizing this.

COL. HASSAN:

I'm sorry, I really don't know. I know that by law it was required. I don't know what actually occurred and where.

K. J. MUSHOVIC:

Another question would be, how does the military airspace in Alaska stack up against areas that are available in the rest of the country? More? Less?

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COL. HASSAN:

Overall, less. Overall, less than the rest of the country--overall.

K. J. MUSHOVIC:

And you found that the original airspace areas, the five that you first talked about, that's completely inadequate for your purposes in Alaska?

COL. HASSAN:

And that's why we have utilized temporary military airspace in conjunction with that over the whole period that we've had military operations areas.

K. J. MUSHOVIC:

And the only reason to go permanent from temporary is just to save you the process, the time and money it takes to find out whether you may use temporary airspace from operation to operation?

COL. HASSAN:

That's clearly one of the benefits.

K. J. MUSHOVIC:

Any others?

COL. HASSAN:

One of the benefits is to provide charting on airspace maps so that becomes permanently charted airspace, as well as saving the process of going through and repeatedly applying for them.

K. J. MUSHOVIC:

And I know you touched on this already, but I'm still not quite clear on this.

If this Fox MOA does become permanent, we can expect more non--you said you've got from three to six active operations planned per year--but we can expect to see these people coming out and engaging in training activities just any old time, right?

COL. HASSAN:

Up to 240 days a year. Is that the total?

K. J. MUSHOVIC:

Now that wouldn't happen if this remained a temporary MOA, right?

COL. HASSAN:

That's true.

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K. J. MUSHOVIC:

I--I've struggled with the sound section of the EIS and I just can't understand it. It looks to me like the impacts that you're evaluating are average noise levels, based on--like say, there's one fighter flying over this area one day--or let's say 50 days a year, but you average that out to see how much sound is actually in that area 365 days a year? Am I--how does that work?

BILL HAM:

The Air Forces--I'm Bill Ham--the Air Force's interim metric that's been approved for evaluating low-altitude flying, what is called LDNMR, day/night average A-weighted monthly sound levels, so it's averaged over a flying month and that's their metric.

There's also information in Volume 3 of the document which would be single-event metric. If you heard an F-15 go overhead at a certain altitude, that's the decibel level you would be exposed to at that instant.

So there's information back in the appendices of all the single level, matrix values for different aircraft types at their typical power settings and air speeds at different altitudes. So you can look back in there, it's--I can't remember what appendix number it is, it's in the Air Operations Appendix. It's about appendix D or E, for all the different aircraft. The average number is the only metric that the Air Force has for identifying the noise levels for low-altitude flying.

The single event--that's for human impacts. The single event metrics are typically applied to animal impacts. That is what the scientific community is saying today.

K. J. MUSHOVIC:

On the theory that humans are not affected by single...?

BILL HAM:

I don't know what the theory is. I'm not a scientist or an acoustician. But that's the--the single-event, especially with low altitude flying, the impact of what's called onset rate. A guy coming up on you, startling, and then going through, is actually added into the decibel level. And that's what the scientific community has come up with for a metric for low altitude flying.

That's all I can tell you right now, is what's the current approved methodology used in the Air Force.

K. J. MUSHOVIC:

I guess I'm still not really clear on--because it seems like a lot of people here have been concerned by the fact that they're out at their cabin or where ever they are, and then all of a sudden there's this huge noise. I don't really see that that's given a significant impact in this document. I don't see where that's really considered as significant as what it sounds like,. Some of the people here feel that it may be.

BILL HAM:

We can--Bill Ham again--we can put the information up in the front of the document if you want to see what the noise levels are. But there's no methodology that I know of that assesses a--an annoyance level, for example.

K. J. MUSHOVIC:

That would be a good term.

BILL HAM:

You know, that I know of that assesses--there's none that I know of in the Air Force or any of the other studies that I've looked at that assesses annoyance level to a decibel level for a single event. We can go back and look at that, though and see if there's any more--we'll do some more research. None that we've seen or in the work that we've ever done. We can pull those values up to the front of the document if people want more information up front.

But that's what you'd typically be exposed to is some level of annoyance. It's about the only thing that's ever been documented, but not to single-events. It's always been documented to average noise levels.

K. J. MUSHOVIC:

Would there be anyone else here that would consider that annoyance level a factor and would like to see that addressed or am I just speaking for myself?
(unintelligible comments from people)

I want to make sure that got in the record. I'm--I work for the Bureau of Land Management and as you know we'll be submitting formal comments under the Department of the Interior, but often those get watered down and some of the people I

work with have expressed some concerns to me that when I said I was going to be at this meeting tonight, I did want to get in the record. It does not seem as though subsistence use in the Fox MOA has been addressed as in-depth as the subsistence use in some of the other MOAs. This is coming from our subsistence program specialist that--that perhaps that could be done a little bit more thoroughly because there is a subsistence--incidence of subsistence use of game animals. Particularly the Nelchina caribou herd in this area, in a rather narrow corridor, during a rather concentrated period of time. And that may be possible too, address that a little bit more in-depth.

And I think when we were working with the Air Force on this in the scoping phase, there were some comments on adjusting the size of the Fox MOA that I don't see that they've all been addressed. That may bear some further looking into. As well as just taking into account some of the impacts on wildlife populations in general.

Thank you.

COL. HEUPEL:

Thank you.

Is there anybody else that has not spoken. Yes, sir, if you would go up and state your name please.

ALFRED LEE:

My name is Alfred Lee. I've been flying in Alaska for 45 years. I've been flying in this particular area for 35 years. I've been privileged to enjoy the freedom of being able to fly pretty much where you wanted to, when you wanted to. And I assure you gentlemen that I'm going to fight for every inch of my airspace. The Air Force did a good job in Desert Storm, they did it without a permanent Fox 1. Based on the statements of the other speakers, the concerns that have been raised as far as the impact on the animals, the wildlife, the recreational activities, it would seem that a compromise could be made that the lower level would be at 5,000 rather than at three. Because most of your activity is going to be up above the mountains anyway. It's going to be up high. And it's a compromise that we could live with and we could continue it as a temporary MOA.

Thank you.

OTH-014

MIT-028

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COL. HEUPEL:

Thank you, sir. Is there anybody else that has not spoken?

Okay, Patti Billman.

PATTI BILLMAN:

Patti Billman.

From what I can tell, you're targeting Fox as one of the busiest MOAs in the state. Maybe Stony A and Yukon 1 may be busier? But Fox 1 is going to be one of your busiest MOAs. Am I correct on that? Looking at your daily sorties in the books.

MAJ. SITER:

Yes, ma'am.

PATTI BILLMAN:

To me, looking at that map, it seems real inequitable that we get all the MOAs on the eastern central border of the state. Why—why can't we—if you have tankers that can refuel, why can't you continue to use the Galena Air Base? It would be about equi-distance between Eielson and Elmendorf. You've got your base there, you can do your refueling, your air-ground. Why can't you spread it around a little bit, instead of putting all your MOAs in one area?

MAJ. SITER:

Well, it kind of ties in with the gentleman's question earlier, about well, if you can fly during your major flying exercises to those outlying airspaces, why can't you look and fly elsewhere?

One of the difficulties about air refueling is we don't have very many refueling aircraft in Alaska. The air defense mission in Alaska has not gone away, okay. What we told you tonight was that the focus of our air operations is no longer strictly air defense of North America. It is now also air-to-ground. Those three bombing ranges I talked about earlier, are located in this portion—this side of the state. That drives a lot of what we can use for accessible airspace, because our planes have got to go to those bombing ranges. You'll notice out in the western part of the state, toward Galena and some of the other airspaces you talked about, there are no bombing ranges out there.

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If our aircraft were to go out there, they would be doing training that would not essentially make them ready for combat. That's the predicament. We don't have tankers available day-to-day, because we're allocated against the alert commitment we have. We get them during exercises. In fact, we import tanker aircraft from other units around the United States to help us just do the exercise, because the tankers in Alaska are insufficient to even do that.

So that—the bottom line is, air refueling is a specialized asset that we don't have access day-to-day.

PATTI BILLMAN:

I'd like to state again, I hope we keep it temporary because once it's permanent, we'll never get it back.

Thank you.

COL. HEUPEL:

Thank you. Is there anybody else?

I want to thank you very much for coming. I want to thank you for your comments. Let me just reiterate that you do have the opportunity to send any additional written comments to the Air Force. We need to receive those by the 30th of November in order to take those into consideration and consider and see if there is further study that's needed as a result of that.

Obviously, I think there have been some comments tonight about concern that subsistence in certain areas wasn't taken enough into account or about animals in certain areas. And if you can be specific as far as areas, if you are making any additional comments, to help focus where you don't think the study has been thorough enough, that would help give us the opportunity to take a good look at that.

Thank you very much for coming out tonight. The hearing is closed.

MAJ. PECK:

If I could get your attention just for a minute now that we've finished the formal part of the hearing, I want to let you know that when you call that 800 number, I'll be the person that you will talk to. So if you've got preface questions or you want to know more about that system, I'm available, you can talk to me about it.

And the other comment was a lot of discussion about different types of aircraft. When you call that 800 number, the more information you can give us, the better chance we'll be able to come to some concrete resolution as to what happened (?) future. Please keep in mind that there are a lot of agencies, federal, state and private, that operate aircraft in the state, so if you see a helicopter, a black one, it could be any number of agencies. It may not even be federal, it may be state, so the more information you can get on what you see, the better job I can do (?). Thanks.

(END SIDE ONE, TAPE TWO)

CERTIFICATION PAGE

I, Arlene A. Stoelting, do certify that this transcript is an accurate record of the proceedings as recorded.

Dated: 9/30/94 Arlene A. Stoelting
Arlene A. Stoelting

Subscribed and sworn to
before me this 30 day
of September, 1994.

Sandra K. Madsen
Notary Public

My Commission Expires 8-1-97

Adendum:

The tape and transcript of the Glennallen MOA DEIS public hearing were reviewed beginning with the public comments given by Mr. Eric Nashlund and continuing through the end of the hearing. Corrections were made accordingly to the electronic (disk) and hard copy versions.

Karen McKibbin
Spectrum Sciences and Software, Inc.
November 17, 1994

Greater Copper Valley Chamber Of Commerce

P.O. BOX 489
GLENHALLEN, ALASKA 99588
(907) 822-8555

From: Jeremy Weld, President
Greater Copper Valley Chamber of Commerce
Subject: Air Force desire to acquire permanent status for MOA "Fox 1"
To Whom It May Concern:

The Greater Copper Valley Chamber of Commerce has passed a unanimous resolution to protest the Air Force's attempt to make a permanent MOA in the Copper River region.

This letter is to convey our objections to the Air Force.

We, as business people, appreciate the military's role and understand their need to be combat ready. However, the temporary system that is now in place seems to be working and there is no need to change it.

Indeed, there is compelling evidence to suggest that the Air Force's new proposal could do irreversible damage to animal populations and the economy of Copper River, as well as posing significant danger to the many users of that airspace.

Animal populations in the area north, west and east of Lake Louise are very important to local subsistence users as well as the urban populations of Anchorage and Fairbanks who use the Denali Highway, the Lake Louise water system, the McLean and the Sustina Rivers as well as trails from the Glenn and Richardson Highways to hunt, photograph and explore the area the Air Force calls Fox 1. The calving area of the Nelchina Caribou and the summer and winter range of this herd lies in this area. This area is also an important area in managing the moose, bear and wolf populations. Constant disruption of the area by Air Force jets flying at all kinds of altitudes and speeds threatens the ability to manage and use these animals. It might well cause permanent damage to their populations.

The area is used and has been used for many years by hundreds of guides, pilots and recreation users. The thousands of lakes provide access not only to hunting but also some of the best rainbow and grayling fishing in Alaska. When the president of the United States visited Alaska in the 1970's they took him to this very area to fish - not the Kenai.

Commercial operations from the Glenn, Richardson and Denali Highways as well as the Lake Louise Area that do business in this area generate millions of dollars of economic activity for the Copper River Area. We are convinced that there will be damage to the Copper River economy by: 1) the way the quality of tourists experience will be diminished and 2) by interfering with commercial operations in the area.

The danger the Air Force jets pose to the hundreds of pilots using this area is also very real. These are often unsophisticated pilots and possibility of an accident happening because the area is so widely used is great.

For all of the above reasons the board of the Greater Copper Valley Chamber of Commerce, representing 175 member business, asks the Air Force to continue with the present method of using the areas south of the Alaska Range and to keep their use of the area no more than it is now and to adhere to the submission of permits when they want to conduct a campaign.

Signed and dated November 11th, 1994

Jeremy Weld, Chamber President

cc: U.S. Senator Frank Murkowski, U.S. Senator Ted Stevens, U.S. Representative Don Young,
State District 35 Representative Gene Kubina, State District 36 Representative Irene Nicholls,
State Senator District R Georgianna Lincoln

BIO-007

BIO-009

REC-004

REC-001

SAF-005

ROBERT S. KAUFMAN
4710 MILLER
ANCHORAGE, AK 99506
(907) 333-3300

November 11, 1994

EIS Team
Major C. Virgil Hanson
Chief, Environmental Management
611 ASGLQV
9800 G Street, Suite 203
Elmendorf AFB, AK 99506

Dear EIS Team:

I believe in the military in Alaska, and your training needs are important. At the same time, I am concerned about your proposed designation of additional training space.

I spent several weeks last summer in the Yukon Charley National Preserve, including time spent on the Charley and the Yukon. My traveling companion spent thousands of dollars to come to Alaska for a wilderness experience. On many afternoons, around 1:00 or 2:00, training jets roared overhead so loud it was a nuisance. It made me a little angry--and disillusioned my partner because of the deafening sound at times--but I figured you guys needed somewhere to train, so I tried to block it out of my mind.

However, if my reading of your proposed plans are correct, and you plan to expand these training areas, I strongly object. I am in the tourism business, and we have one thing to sell in Alaska, and that's wilderness. I could not in good faith offer the trip I took last summer to a revenue client because the overflights were so distracting. If you are suggesting that additional areas will have similar overflights and become similarly unusable for wilderness guiding, then I strongly object. I don't mind sacrificing a few areas, but enough is enough.

It really is a bummer that the world's wilderness areas are shrinking and, as a result, demand for Alaskan wilderness vacations is increasing. It's none of your fault that there are few places left that can offer visitors the kind of undisturbed solitude which Alaska can. Jets unfortunately require so much territory for training that your proposal really creates a problem. Is there any way you can train during winter?

At the very least, I suggest you hold public hearings and extend your comment period so you can see how many people really are affected by your proposal. My guess is you might reconsider at that point.

Thanks very much. Good Luck.

Sincerely,

Bob Kaufman

Bob Kaufman

REC-001

PRO-003

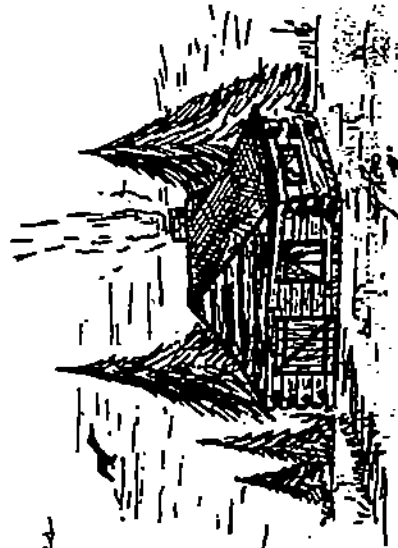
EIS TEAM,
Major C. Virgil Hanson:

Nov. 13, 1994

Greetings.

There is just to let you know that I am 100% Against the proposal to designate 71,650 square miles of Alaska for jet outcrops and sonic booms. To do these exercises only 5000 feet above the ground in an outcrop to me humans and wildlife alike. I personally live in Alaska to enjoy peace and quiet and the animal life, as do many Alaskans. Please do whatever you can to halt this unfair and ridiculous proposal.

Sincerely,
Marilyn Hayes



OTH-014

Stephanie J. Warnock
1221 Medfra
Anchorage, AK 99501

EIS Team
Major C. Virgil Hanson - Chief, Environmental Management
611 ASG/LGV
5800 G Street, Suite 202
Eielson AFB, AK 99506
(907) 552-1807

November 18, 1994

Dear Major Hanson:

I recently learned of the desire on the part of the United States Air Force to designate and upgrade 71,650 square miles of our airspace that will impact nearly 18 million acres of Alaska. I strongly urge you to reconsider this outlandish idea.

I have camped, hiked and explored some of the areas which will be affected by the proposed military air space expansion. Most of this travel has occurred in the summer, which I understand is also the targeted season for most supersonic jet training exercises. It is not my idea of a wilderness experience to have the peace of the wild - which is why I moved to Alaska in the first place - disrupted by sonic booms. Also, I understand that scientific studies demonstrate that humans will not tolerate long-term exposure to sonic booms generated by air combat training below 30,000 feet - let alone at the proposed 5,000 feet! I am also extremely concerned regarding the impact on the environment and wildlife of such testing.

Nowhere else in the U.S. has the US Air Force proposed supersonic jet training exercises at 5,000 feet. This proposed activity is precedent setting. Alaska is not a national sacrifice area for military training. This proposal would not fly in the lower 48 - no one would consider getting away with such activities over national parks, refuges and state parks - or over towns and cities!

I want to request:

PAN-001
PRO-014
AIR-015
PRO-003

1. Additional documentation to justify these training activities.
2. Additional studies to clarify impacts to tourism, recreation, subsistence, wildlife and other human activities.
3. Public hearings facilitated by the FAA.
4. An extension of the comment period by the Air Force.

Sincerely yours,

Stephanie J. Warnock

cc: Honorable Bruce Babbitt, Secretary of the Department of the Interior
Paul Gallant, FAA

044

From: PHYL S. TATE

P.O. BOX 19
LAKE MINCHUMINA,
AK 99757

Chief, Operations Division
 11th Air Force
 ATTN: Major Siler
 5800 G Street, Suite 102
 Elmendorf AFB, AK 99506-2130

November 17, 1994

(907) 532-1807

Comments regarding proposed Alaska Military Operations Areas:

As a pilot and lifelong Alaskan who regularly flies V480/R39 between Fairbanks and Minchumina, I have encountered military aircraft circling below me, passing by me and darting out of clouds in front of me a few hundred feet off the ground. I do not want these boys playing games in multi-million dollar jets over my head in my own back yard--and that is just what high speed low altitude flying is. It is thrilling, dangerous to civilian aircraft and unnecessary, but the issue is not even addressed in your draft. I am opposed to the Proposed Military Training Routes (MTRs).

Where in your draft EIS do you address the destruction of quality of life, mental stress, and other social and environmental impacts of the proposed 10-mile wide MTR's over rural Alaskans? Where do you address the effects of an MTR across thousands of square miles of wetlands which are home to thousands of waterfowl and migratory birds each short Alaskan summer? (As I understand it an MTR goes from surface to 1500 feet AGL.) Every year we watch thousands of Sandhill cranes fly higher than that.

Noise pollution is real, offensive and destructive. People come to Alaska (and move to rural Alaska) specifically to enjoy the very solitude, beauty and wildlife you propose to permanently run-off or destroy. Rural Alaska offers a peace of mind and appreciation/enjoyment of nature few ever, have the opportunity to experience. You propose to eradicate the essence of a rare and irreplaceable lifestyle without a second thought and say it makes no impact on those of us who live here. You who have never lived in rural Alaska are experts on it.

The Selena AFB is shut down, so why do you need an MTR to just west of Belmea, now? And why do you have MTRs crossing civilian airways where general aviation aircraft are well likely to get high speed jets flying above 15,000 feet? There are too many civilian aircraft in Alaska for jets to be flying at low altitudes.

Send copies of your comments to the following people by November 31st:

FAA, System Management Branch U.S. Department of the Interior
 ATTN: David Berg, AAL-535 Deborah Williams, Special Assistant to
 700 East 7th Avenue the Secretary of the Interior for Alaska
 Anchorage, AK 99513-7587 1609 C St., Anchorage, AK 99501

More than half of Minchumina families own their own planes and fly V480/R39 to and from Fairbanks. In addition, there are scheduled commercial flights on this same route in and out of Lake Minchumina.

Phyl S. Tate

045

From:

Richard Swisher
DBA Quicksilver Air
576 Old Steele Road
ERKS AK 99712

Chief, Operations Division

11th Air Force

ATTN: Major Siler

5800 G Street, Suite 102

Elmendorf AFB, AK 99506-2130

Comments regarding proposed Alaska Military Operations Areas:

Alaska attending the public hearing and giving some thought to the subject. I would like to address how increased activity will impact my business during the time periods of Aug 85 thru Sept 88. I can daily transporting hunters north and south in Game Management Unit 205C Cheley area and in particular the Selkirk and Chena River drainages. Areas of heavy use are North Fork Selkirk, then just south headwaters Chena. All located in the Yukon NMA. I also do halibut and fixed wing air support thru the Alaska Dept. of Wildlife in the Chena area as well. Game Management Unit 205C Cheley area and the Selkirk area. Good pasture grows and 20A in the past 10 years I have had a hay shape and have been caught up with a hay-shaper in some of my work air to air battles. Actually I liked it, but I don't want to become a statistic. During season a high use time period two river hunters and Air transported hunters occurs on the Selkirk area. Please send copies to:

FAA, System Management Branch

Attn: David Berg, AAL-535

700 E. 7th Ave.

Anchorage, AK 99513-7587

I am all for keeping our boys in blue to tip top combat ready shape but would also appreciate a little less activity in the above mentioned drainages during peak use times. Please contact me I would enjoy this topic. *Richard Swisher*

AIR-008

OTH-014

PRO-001

CUM-001

AIR-016

DEAR SIR,

I OPPOSE ANY MILITARY OPERATIONS AREAS IN ALASKA. I HAVE HAD C-130 AIRCRAFT FLY AT TREE TOP LEVEL OVER MY HOUSE. MY UNDERSTANDING THEY SHOULD BE AT LEAST 800 FT. ALSO THEY FLEW GRID SEARCH PATTERN'S. WERE THEY TAKING PICTURES OR USING GROUND PENETRATING RADAR TO SEARCH OUR PROPERTY??

THAT IS AN INVASION OF MY RIGHTS AND A THREAT TO MYSELF AND FAMILY.

ALSO DEPARTMENT OF STATE PUBLICATION 7277 THE UNITED STATES PROGRAM FOR GENERAL AND COMPREHENSIVE DISARMAMENT IN A PEACEFUL WORLD. CALLS FOR TURNING OUR MILITARY OVER TO THE U.N.. THAT IS DISARMING OUR COUNTRY FOR A NEW WORLD ORDER TAKE OVER.

ALSO P.D.D. 25 WHICH WAS SIGNED BY PRESIDENT CLINTON GIVES THE U.N. IN AN EMERGENCY CONTROL OF THE U.S. MILITARY. I OPPOSE THIS NEW WORLD ORDER AGENDA..

I OPPOSE THE AIR FORCE IN ALASKA SO PLEASE PACK YOUR BAGS AND LEAVE

P.O. Box 92 DELTA JCT. ALASKA 99737/T.D.C. *Bernard Goodno*

OTH-014

EIS Team
Major & Vinyl Hansen,
Chief, Environmental Mgt.
611 ASG/LGV
5500 G St, S.203
Elmendorf AFB, AK 99506

Dear Vinyl Hansen:

The proposed engineering for training exercise at a 5000 ft altitude over Sleet Lake, Sleet Lake (Tallentire), Circle Village, Elmendorf and vicinity would destroy wildlife + pose threat to bush pilots + native communities. I cannot stand many sonic booms. I've experienced the shock of them, myself.

I want the Air Force to lengthen the command period to 3 months, train pilots at 30,000 ft and coordinate with FAA hearings in the Westchester, NY area.

NOI-002

AIR-015

PRO-003

Raymond Goodno, PhD

Dr. Ray Goodno
at Delta Jct, AK, 99737
P.O. Box 92
Delta, AK 99737

048

November 15, 1994

Major C. Virgil Hanson
611 ASG/LGV
5800 G. Street, Suite 203
Elmendorf AFB, AK 99504

Dear Major Hanson:

Here are my comments to The DEACT ALASKA
MILITARY OPERATIONS AREA ENVIRONMENTAL
IMPACT STATEMENT.

I am totally against the MILITARY using these
proposed NEW MILITARY OPERATIONS AREAS. Our
Government/Military has spoiled so much
REAL ESTATE already. These areas are pristine,
unspoiled lands with much wildlife. This
proposal calls for far too many flights, too
low and in some cases over Park lands.
Find another place to practice - like NEVADA.

Sincerely,
Stan Aarsund

STAN AARSUND
4856 BRUN MAUR CT. #3
ANCHORAGE, AK. 99508

0114014

049

11-15-94

ETS Team
Major C. Virgil Hanson
Chief Environmental Management
611 ASG/LGV
5800 G Street Suite 203
Elmendorf AFB, AK 99506

Dear Major Hanson:

I'm concerned about the
air space plans for Alaska
by the Air Force. A understand
several million acres of
Alaska Parkland and
wild lands will be used
as supersonic jet training
sites. I realize that to
some unpopulated areas do
not seem important, but I've
seen the impact on animals
of bond notes (living in birdwood

P.O. Box 2994
Homer, AK 99603
November 12, 1994

Major C. Virgil Hanson
Chief, Environmental Management
611 ASB/LBV
5800 B Street, Suite 203
Eldorado AFB, AK 99506

Dear Major Hanson:

We are appalled at the scope of the proposed expansions of Military Operations in Alaska. These expansions will impact specially designated wildlands as well as numerous villages. Alaska's low density of people does not mean that these lands are automatically appropriate for low altitude supersonic jet training exercises. Since we travel extensively in Alaska, particularly in the summer, we are very concerned about the proposed expansions. Additionally, we have grave concerns about the environmental effects of some of the associated practices that come with these kinds of training overflights.

We have rafted and hiked the Forty Mile, Tukon-Chanley and Bulkana rivers and have spent time in the Tetlin National Wildlife Refuge, Tanana Valley State Forest and the Wood River-Titchik State Park. Supersonic flights with the accompanying sonic booms will be very disturbing, not only to the people that use these areas, but also to the wildlife. Sensitive peregrine falcons nest on cliffs above the Yukon-Chanley and Forty Mile rivers where booms would reverberate. This region of the state is prone to summer fires, and in fact, one major fire recently was shown to have been started by jetted chaff and/or flares from a military exercise. We are also very concerned about fuel jettisoning over sensitive wildlife habitats.

With the down scaling of the military nationwide, we find it ironic as well as unnecessary that the military is trying to expand its training operations in Alaska, particularly over national preserves, refuges and state parks, certainly areas that the military would not seek to train over in the Lower 48! Why should the standards be lower here? People in small villages live there in part because of the quiet, rural lifestyle. Supersonic jet training in these areas will destroy this way of life. We have been on the ground when supersonic overflights have been made and we know how disturbing they are, particularly when they are accompanied by the booms. They also create a safety hazard for private pilots. Small planes are the buses of the bush, and the proposed supersonic flights certainly add another dangerous element to already dangerous bush flying.

We urge more documentation to show that these additional training areas in the post Cold War era are really necessary. More information is needed to show what impacts these training exercises will have on tourism, recreation, hunting, subsistence, and just lifestyle. More studies also need to be made on the environmental impacts of sonic booms, loud, low-flying jets, fuel-jettisoning, and other jettisoned debris. Alaska is not the national sacrifice area, but rather the last of the true wilderness that America has left, and it should not be lightly given over to highly destructive, dangerous military training exercises.

Sincerely,

Nina Faust

Nina Faust

Edgar Bailey

cc Secretary Bruce Bebbitt
Paul Gallant

049

my dogs are exposed to
avalanche blasting every
year) it is very distressing
to the point that my
animals will shake and
run when the blasting
occurs. Imagine the
effect on the wild life of
repeated sonic booms
not to mention my people
natives who live in the
area or visitors who
may be wishing to experience
a wilderness outing free
of societal issues.
The type of activity
should not occur at all
on a repeated basis
- especially in low -
in such a large area - or
so often.

Please re-consider the plans
for the special airspace.
Sincerely, Sylvie Montalbano

NOI-002

BIO-007

J 3420 Kubip Way, Apt. 4-303
L'Heur NE 9th/06
November 12, 1994

EIS Team
Walter C. Yingling Hanson, Chief, Environmental Management
811 ASG/LG
8800 O Street, Suite 203
Elmerdorf AFB, AK 99606

Walter Hanson:

I have just learned that the United States Air Force wants to use thousands of training flights in Alaska for supersonic jet training exercises at only 5,000 feet above ground. I read that about 19,600 supersonic flights are expected, with accompanying sonic booms, and that training will occur mostly during summer months.

This is unacceptable. Human beings live to this day, in at least 11 Native and Eskimo communities. There would be adverse "radiation physical" and psychological impacts on these people. In addition, they would be in very large part on game animals, which population would be heavily affected by sonic booms, low-flying jet aircraft, and electro-magnetic radiation from military installations and relay sites.

NOI-002
SUB-001
HAZ-007
AIR-008
SAF-005

Many residents of rural Alaska use small planes for local transportation and would be subjected to increased risks of air-air collisions and costs associated with Special Use Airspace.

This proposed activity is precedent-setting. The proposed areas are too large, flight levels too low, and sonic booms too many. This would not be allowed in the contiguous 48 states, where such activities occur over parks, refuges, towns, and cities. Alaska should not be a non-first amendment area. Additional documentation is needed to try to justify these training activities. Additional studies are needed to clarify the effects on tourism, recreation, subsistence, and other winter activities, as well as animal and plant populations.

PAN-001
PRO-014
PRO-003

Please extend the comment period beyond November 30, 1994, so that more documents can be received.

Thank you,

William K. Lindgren,

Glennora K. Nelson
(Mrs. J. Clark Nelson)

cc: Bruce Bahitt, Dept. of Interior
Ran' Gallant, FAA
Sen. Doris Foye
Sen. Daniel Alito
Rep. Patty Mink

Harry + Jean Holt
Hc 101 Box 6472
Palmer, Alaska 99645

November 18, 1994

611 ASG-CC
Dept. Environmental Impact Study
Benedict Air Force Base
5800 "G" Street, Suite 203
Anchorage, Alaska 99506-2150

RE: Proposed Permanent Military Flight Training Area; north of Lake Louise

To Whom It Concerns,

We would like to make written comment of opposition to the proposed Permanent Military Flight Training Area (MPA). From its current status of Temporary (Training Area (MPA) when Fox!

The negatives surely outweigh any positives in regard to a Permanent Flight Training Area north of Lake Louise. With all considerations of the military's part for Permanent

Flight Training Area, the Air Force must seriously address the consequences with supersonic operations etc. We all have learned from past mistakes. Unfortunately, the military as well, example: Eagle River, impact to the environment and clean-up costs to the taxpayers.

The uniqueness of this area to Fox 1, should remain a temporary Flight Training area. The area is so beautiful with wildlife: the Nehalem and Delta caribou herds, the Muss waterways of Lake Louise, Susitna and the Lake Louise, its nesting grounds. Especially home to the Puffin-bellied Gull on Bird Island; very unusual. Besides the habitat, the recreational use of the area has grown over the years. Not too often does an Alaskan have the opportunity to enjoy a condensed area so beautiful within reasonable distance

from major towns and driving at that.

There is too much at stake for the Air Force to make a Permanent Training Area out of Fox 1. One of the Air Force's obligations to a Permanent Training status is not using the area during hunting season for two weeks each year. This procedure just shadows the Permanent Training operations and will not begin to address the environmental impact they will cause. Let's stick on Plan A, suppressing the "No Action Alternative", keeping the area as a Temporary Training Area (TMA). Thank you for the opportunity to comment.

Sincerely,

Harry + Jan Holt

OTH-014

an imaginative step into a magical world
Climbing School and Guide Service - Expeditions International

Major C. Virginia Hansen
611 ASD/LW
APO (R) 9603
Klamath Falls, AK. 99506-2150

November 15, 1994

Dear Major Hansen,

I am writing in regards to the RIF done to accommodate the Air Force intent to expand your Military Operating Area's in Alaska. An Environmental Impact Statement prepared having taken into consideration both the human and natural resources involved. National security, as a human resource, is most certainly a high priority, at least on my list and yet still this needs to be weighed in regards to what it will cost. Not just in money, but what is being sacrificed from the natural resources to accommodate a particular objective?

Alaska is rapidly developing the monopoly on having not only North America's treasure chest of un restricted natural and wildlife resources, but with human population and confidence surrounding areas as in it, Alaska is clearly money, if not the world's premier wildlife and natural resource area. Breaking the sound barrier 5000' above hard rock on land will completely disrupt, if not destroy human, natural and wildlife habitat. The question I now ask myself is that is my security so threatened and vital that I am willing to destroy everything worth protecting to have the right to control it? I have no doubt that if there is enough time left to the left of mankind that we will travel the galaxies in the next hundred years, but not that opportunity to exist we are going to need to learn to great equal rights to the earth's resources which support us. We are going to need to change the way we live on this planet lest we evolve into our own greatest threat.

My response is motivated by the Alaska Wilderness Recreation & Tourism Association who has requested that I state the following points:

- 1) That the RIF includes information on the number of commercial recreation providers in an area by type of activity or service provided; number of clients by type of provider; and commercial recreation rates (fees).
- 2) That the economic analysis include the negative impacts on commercial recreation.
- 3) Does the criteria for the "sensitivity rating" really take into consideration all of the various concerns equally? There appears to be no consideration for the rights of wildlife.

In conclusion and to add perspective to my perspective, I am a concessionaire at Denali National Park & Preserve to provide technical climbing services in that region. The anticipated effects on recreation and tourism to this area appear to be "acceptable", but in such the same way that all life is connected, so too are the interests that humans generate. I can assure you

Fantasy Ridge Alpinism, Inc. P.O. Box 1679, Telluride, CO 81435 (303) 728-3546

REC-001

REC-003

AIR-014

What is there to worry? It's not money, commercial blood the souls of special interests. Groups such as yours and I do not worry for the money is just a means to an end. If we have to live we are concerned to have the present then, how is it really meaningful? Thank you for the time and consideration.

Sincerely Yours,
-David L. Hansen-
Fantasy Ridge Alpinism

It's the spirit of the wilderness that we are trying to preserve. We are not trying to destroy it. We are trying to preserve it. We are trying to preserve it. We are trying to preserve it.

Gary R. and Susan G. Wilken
2600 Riverview Drive
Fairbanks, Alaska
99709

November 10, 1994

11 AF EIS Team
 611 ASG/ACV
 5800 G Street
 Suite 203
 Elmendorf AFB, AK
 99506-2150

Re: Public Comment
Environmental Impact Statement
Alaska Military Operations Areas

Dear Sirs:

We would like to provide our comments regarding the changes and additions being proposed to MOA's as described and defined in the September 1994 Executive Summary entitled Draft - Environmental Impact Statement - Alaska Military Operations Areas.

My comments are based on the fact that we both are:

- 1) forty-two year residents of the city of Fairbanks and the State of Alaska, and
- 2) frequent users and property owners (Lot 96 - 11110 Salcha Drive) of Harding Lake, Alaska.

As described in the Draft Statement, we have noticed an increase in air operations out of Eielson AFB since 1991. This increase has been unnoticed from our home in downtown Fairbanks but has been most noticeable from our Harding Lake recreational cabin. And, while we have been aware of this increased activity, we have let no way been bothered or disturbed by such activity.

We take great exception to the notion that the ending, or the proposed MOA related air activity, has had, or will have, a negative impact on the quality of use or the value of our Harding Lake property.

The issue of a negative impact on Harding Lake property is ill founded at best. Our family spends a great deal of time at the Harding Lake property during the summer; we occupy the cabin approximately 70 days out of the 100 days of summer. Additionally, a great number of our personal circle of friends own, and utilize as we do, Harding Lake property during the summer months. We can state unequivocally that negative affects of air overflights around Harding Lake has been simply a "non-issue" among this circle of friends. Sue and I, since 1991 have had just one comment regarding any negative impact on the quality of life or the value of property. (That comment being recently received in the form of a mass mailout making public a personal opinion in regard to this EIS - MOA issue.) Simply put, it is our strong opinion that past air activity over Harding Lake, and future properly managed air activity, has, at worst, a neutral affect upon the value and the use of such property. Indeed, one may argue that it improves the value of the property.

We support the presence of the military in Interior Alaska. While the positive economic impact of such a presence is obvious and appreciated, the cultural and quality of life impact is much more subtle, yet nonetheless important. The temporary minor inconvenience of the increased air activity, as proposed in the MOA changes and additions, are a small price to pay for having good neighbors such as our military friends.

Please proceed as planned.

Sincerely Yours,

Gary Wilken
 Gary R. Wilken
 Susan G. Wilken

2600 Riverview Drive
 Fairbanks, Alaska
 99709

11110 Salcha Drive
 Harding Lake, Alaska

OTHL-014

Dale W. Hamman
3868 University Ave.
Fairbanks, AK 99709
474-0194

Chief, Operations Division
11th Air Force
ATTN: LTC Siler
5800 G Street, Suite 102
Anchorage, AK 99506-2130

November 10, 1994

SAF-005
AIR-008

Flying in Interior Alaska is going to become a lot more dangerous if the Air Force goes away with establishing its proposed new Military Operations Areas in the Interior State. The safety part of this plan in that it is proposed for the most heavily travelled flying route in interior Alaska, unobstructed over the Alaska Highway between Iok and Fairbanks.

As you know, aircraft operating below 10,000 feet are limited to speeds below 250 knots (283 mph) in order to have enough reaction time to avoid collisions with other aircraft. A Military Operations Area (MOA) not only takes away this speed limit for the military, but allows them to perform abrupt aerial combat maneuvers as well as while carrying live ordnance. The hazards created by these operations are so real that the FAA will not allow flight under instrument flight rules in MOAs. That means the instrument flight rules that goes from Fairbanks to Iok, then on to Northway and Whitehorse will not be available. A VFR pilot flying along the highway may at any time encounter an F-15 fully loaded with live ordnance cruising directly across his or her route down in 300 feet or lower at speeds up to 500 mph as it heads to bombing practice.

There is a reason why these MOAs don't exist over aerial routes and major cities in the lower 48, the hazards are considered unacceptable. The Air Force should give us the same level of safety in Alaska for our major flyways. There are already many MOAs in existence in Alaska that can be used. If expansion is needed it should be done away from current flight routes. This proposal shows a complete disregard for the safety of the flying public and must be stopped.

The "Targeting session" put on by the Air Force Wednesday night at Alaska J and was a sham designed to make us think we had to accept this dangerous proposal. We do not have to accept this MOA and we must stop it or general aviation may accidentally end up playing aerial combat with the Air Force.


Dale W. Hamman

From: J.D. Macchi,
P.O. Box 81238
Fairbanks, Alaska

Chief, Operations Division
11th Air Force
ATTN: Major Siler
5800 G Street, Suite 102
Fairbanks, AFB, AK 99506-2130

Comments regarding proposed Alaska Military Operations Areas

ALT-002

1) Relocate training areas, environmental problems not withstanding.
2) Designate a safe frequency and ensure military aircraft to receive it then only. The goal is to allow civilian aircraft to freely broadcast location, heading, altitude when entering an MOA. The cost of adding civilian equipment to military aircraft would be with threat of it, each saves one military crew.

AIR-007

AIR-006

1) IMAGS ON WINDY PLOTS HOW BUSY THE CIVILIAN AIRCRAFT BECOMES IN THE MOAs

Please send suggestions
FAA, System Management Branch
Attn: David Berg, AAL-535
700 E. 7th Ave
Anchorage, AK 99513-7587

Alaska Aviation Safety Foundation
PO Box 83750
Fairbanks, AK 99708

Department of the Air Force
611 ASO/CC
5800 G St. Suite 203
Hickam AFB, AK 99506-2150

To Whom It May Concern,

I am a resident of Fort Yukon, Alaska, a city that is affected by Yukon 5 of the proposed Alaska Military Operations Areas, and I would like to voice my opposition to this particular MOA.

PRO-003
OTH-014
After experiencing two smoke booms during August, it's hard to imagine that they will not adversely affect our wildlife resources, and it's my opinion that the environmental impact study isn't complete without the input of our own resource technicians; this input has yet to be solicited by your department.

In conclusion, I would like to state my position as being opposed to Yukon 5 being established as a permanent MOA, and that one of the alternative sites be used instead.

Additional comments:

*Protect Wildlife + our way of existence
living. Give us a break!!*

Sincerely,

John M. Moore

220 Saxtlest St.
Reno, NV 89512
November 15, 1994

Major C. Virginia Hanson, Chief
Environmental Management
611 ASO/LOV
5800 G Street, Suite 203
Hickam AFB, AK 99506

Re: Draft Alaska Military Operations Areas Environmental Impact Statement.

Dear Major Hanson:

NOI-002
PAN-001
I am willing to express my extreme opposition to the super-sonic jet training exercises proposed for parts of Alaska. My personal experience in the proposed area is that Alaska is too beautiful to subject to 1500 supersonic flights. My personal experience from 19 Nevada with existing training operations makes me feel that no human should be subjected to as many sonic booms as your proposal, should it be accepted, would cause. Besides, with the end of the Cold War and our real, competent enemies, why do we need to expand training areas. It is like the military gives back to Americans much of the land previously usurped. This Air Force has not explained the need for this expansion.

BIO-007
Kara in Nevada, super-sonic flights caused cattle to miscarriage. The Navy eventually bought all the ranches, but similar effects clearly occurred to big horn sheep. Does the Air Force suggest that moose, caribou, dall sheep and porcupine calves will not have similar reproductive problems. Will the Air Force refrain from exercises when sheep are breeding?

REC-001
What will be the effect of training on backcountry tourism? I know that I avoid training routes whenever possible. Will the communities that depend on tourism be impacted by decreased visitation because they are avoiding a military training for a community, huh, huh?

Thank you for this opportunity to communicate my gripes over this proposal to you. Please add my name to the mailing list to receive updated information.

Sincerely,

Jim Hanson
Tom Myers

059

November 17, 1994

Major C. Virgil Hansen
611 ASG/LGV
5800 G St. #203
Elmendorf AFB, Alaska, 99506

Dear Major Hansen;

I am against the proposed expansion and upgrading of military air space in Alaska. People think Alaska has a vast amount of open, wild space. Actually, it is getting quite crowded and is well used. Alaska attracts residence and tourist because of its wilderness. It is harder and harder to find real wilderness. If military air space is increased, this will destroy more wilderness.

REC-001

I help lead commercial wilderness trips in Alaska. The EISs for the MOAs should include information on the number of commercial providers in the area, their activities, number of clients, and their fees. The economic analysis needs to include negative impacts on commercial recreation. Charter plane flights are used to get to most areas in the state. MOAs limiting civilian traffic will be a hardship on commercial and private parties trying to get to and from areas.

REC-003

What you are using as a Sensitivity Rating does not seem very fair. Areas you have rated as low or medium effects, get significantly more recreational and tourist use than the rating would suggest. You need to develop better Sensitivity Ratings. The effects on wildlife in the areas also needs to be taken in consideration.

ALT-002

The EIS does not consider the alternative of conducting training in the Gulf of Alaska. This area is away from land and will not effect as many people.

I go on trips in many of the areas that may be designated as MOAs. Having military planes fly over and sonic booms reverberating in the air, will destroy the wildness of these areas. Please do not increase the MOA areas in Alaska.

Sincerely;

James P. Logan
James P. Logan,
Fairbanks, Alaska

060

November 17, 1994

Major C. Virgil Hansen
611 ASG/LGV
5800 G St. #203
Elmendorf AFB, Alaska, 99506

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Sincerely;

Sherry Lewis
Sherry Lewis,
Fairbanks, Alaska

concerned about and one of the areas that I'll have Bob Siter here talk about is some of the air safety issues that came up in this particular area that we're concerned about as well as you. So it's a mutual concern. And then what will happen is, is from here, we're now in a public hearing thing and we're going back to all the different places we've been to, to talk about what we've found. We're very proud of the process because it's had the public involved and I think we, ourselves, have identified issues that the whole bottom line for us is, you know, we're trying to change the way we used to do business. The Air Force used to say okay, this is what we need to do and we're gonna go and do it. And today what we're trying to do is say, look, here's what we need to do, here's how we'd like to do it. Now, how can we balance that with, you know, if there's concerns about air safety or noise or stuff like that. So, that's really what we're about. But it's gonna take another year to do that. We're gonna go back, take comments that we get here and then next summer we'll have a final Environmental Impact Statement. And that comes back out again, as you know, you'll get 30 days to look at that and then a decision would be made about that time.

But again, we've made changes to the proposal that we started with already, based on information we have received from folks. So we want to build a trust, build up a good dialog and good relationship and that's why we're back to share this information.

Now, Bob can talk about this particular area and any other areas you might have a question about.

MAJ. SITER:

I'll focus on this area. If you want any information on other parts of the state where we do fly, 'cause realize, this is just one section of the state we flying in and it's very valuable. In Alaska, the weather pattern in southwest Alaska varies greatly to what you find in the interior and certainly different toward Canada. So anyway, it gives us an ability to deal with the winter weather so that we don't have ourselves shut down for literally days or weeks at a time because we can't train because all our airspace is just in one section of the state.

The airspace that we have in the western part of the state is Naknek, 1 and 2 down here (UNINTELLIGIBLE) down here. The Stony airspace here. Galena

airspace here, with the town of Galena right here. And then Susitna airspace here. In particular, for the proposed action, what we're looking at is this airspace here. Stony is the only airspace in Alaska that's presently electronically instrumented to track aircraft. And what it is, there's antennas on the ground that track telemetry pods that the aircraft carry under their wing and it broadcasts the position, the altitude, the air speed, the heading of the aircraft. And it's beamed off a satellite back down to Anchorage and saved on a video tape. So when the pilots get done flying in the airspace and they go home, they go into the theater and they see the air engagements in the airspace from many different perspectives. God's eye-view of the whole airspace, all the aircraft doing their maneuvering, as well as going into the cockpit of any one aircraft and all the parameters are broadcast on a separate screen so they can freeze the tape at any time and look at what was going on as far as the engagements.

The floor in Stony A has always been since ... and these areas were created in 1976, the floor in Stony has always been 100 foot above ground level. We don't train at that altitude, the minimum altitude the F-15s are coming out here to train is 500 foot above ground level. And I don't foresee us changing our altitudes that we train at because that's more than gets the mission done for us.

But Stony B out here to the west, on the west side of the Stony River, the floor of this airspace is 3,000 feet above ground level. What our proposal looks at is lowering the floor to match Stony (UNINTELLIGIBLE) 100 feet.

Another airspace that's nearby is Galena. Galena Air Force Station had alert aircraft, stand-by alert (UNINTELLIGIBLE) alert for decades. Well those aircraft, last year, were brought back to Elmendorf and this airfield was put on, what we call, a reserve stand-by status. And the airspace here, Galena, was predominantly being used by the alert aircraft for practice missions, but they didn't go on an active intercept against old Soviet aircraft. They would go in here and train and they might come down to Stony and train as well.

Elmendorf aircraft do not routinely go out to Galena on a day-to-day basis, so the hours of use here really aren't being used much. But we need the airspace because on occasion we send aircraft out from Elmendorf to Galena, fly C-130s out and put the aircraft on alert, simulating an exercise (UNINTELLIGIBLE) change in

the world political structure or whatever. But we might have to go back doing alert again. So we practiced that, where those aircraft go out here and fly in the airspace in Galena. We activate the airspace with a "notice to airmen" system because what we propose here is eliminating all the published hours. We don't need it Monday through Friday, 8:00 in the morning to 6:00 at night. We just need it for these exercises for the foreseeable future. So we would just activate the airspace for an exercise for a few days, the aircraft will go out to Galena. When the exercise is over those aircraft don't stay there, they go back to Elmendorf and the airspace is essentially noted closed. So that's pretty much what's happening out in this airspace here.

There's no proposed changes to Susitna airspace and there really isn't any change proposed for Naknek. The floor of Naknek is 3,000 feet above ground level. It meets our requirements. Again, it's not an electronically instrumented airspace like Stony and so no proposal change there.

COL. HASSAN:

I wanted to talk about a) what percentage of time the training (UNINTELLIGIBLE) and impacts that we've identified over in the ...

MAJ. SITER:

The air-to-air training that we do involves some low altitude flying, but it's a small minority. Usually when we train low altitude, the F-15, is usually about 20% or less of the time is spent at low altitude.

Whenever we do supersonic operations in Stony, it is a supersonic airspace, it's authorized for that, normally they're done at high altitude. Upwards of 20, 30, 35,000 feet. And the reason for that is, you get ... from a tactical standpoint to the pilot, you get better benefit in terms of how fast you can go and how far you can simulate shooting air-to-air missiles. The higher you are, the farther those missiles will travel. And imagine, if you will, if you were going against another aircraft that was also going high and fast, he who is higher and faster usually has the advantage on he who is lower and slower. And so most of the supersonic operations happen at high altitude.

And one of the things in terms of impacts. A Level II impact ... again, the levels are, Level II impact is an adverse impact which is usually a seasonal ... it's a

seasonal impact. Whereas Level III is an impact that might, over time, create a permanent change to a wildlife habitat, to a recreation area in terms of its aesthetic value, that kind of thing. We found a Level II impact because it was seasonal. During the summertime months a lot of recreation ... you pointed this out yourself before the meeting, along the Kuskokwim and the Holitna rivers basins down here in these drainages and so we'll be looking at the possibility of mitigating that particular area if the proposal is, in fact, adopted to lower the floor in Stony B.

Along the towns, for example, Stony River, Sleetmute, Red Devil, Georgetown, realize that we're not gonna be able to train at low altitude over those towns because we still have to comply with the FAA restrictions and obviously, these are also areas for potential mitigation as well. As we looked at potentially lowering the floor in Stony B.

COL. HASSAN:

You just used the term mitigation there which is really the bottom line here and that is, when we go through this, seeking this balance I told you about, really, the way that we implement that is with this mitigation. That is, we just find those places that, for whatever reason, because of what Maj. Siter told you earlier about the caribou calving or the sheep lambing areas, noise up in the Central/Circle Hot Springs area, we got a 10-mile "keep out" zone that we've, you know, drawn around there. So there's a lot of these mitigations that we can work that still allow us to train, but doesn't get impacted—you know, takes care of impacts that would occur to either aviation safety or human noise concerns or wildlife. And really, that's what we're working on right now. Is just trying to find out any areas, locally, that you may know of that we should be sensitive to.

MAJ. SITER:

This mitigation list is not something that is necessarily related to the EIS, the Environmental Impact Statement process, but rather, is ... we're looking and interested in maintaining balance day-to-day. And through our "800 noise complaint service" and just having dialog with the federal agencies, the state agencies and the public, this list of 38 points, they're either points or regions around the state, have evolved over the years that we've been flying in Alaska. And again, as we go through

the EIS process, once a record decision is made, it will probably also involve specific mitigation areas based either ... some will be continuous, some will be seasonal, this described time. Others, for example, are areas that are defined generically here, but as Fish & Game updates where the birds do certain things, whether it be the sheep lambing areas, the caribou areas, we then adjust it, the locations. So it's not static because it was developed five years ago. It's real time information adjusting year-to-year so that we ... the mitigation does, in fact, serve its best purpose, which is again, real time balance.

JAMES WILLIAMS:

Okay.

COL. HEUPEL:

That's kind of a quick overview in terms of what it is that's being proposed. As Maj. Siter was saying, it dealt with primarily those things that are happening over in the western part of Alaska. There's a number of things in the eastern part that we can address if you want to address.

Any questions that you've got at this point?

JAMES WILLIAMS:

No. The only thing I was going to ... where's a list of what they point out like for wildlife impact in the Stony River area? Is that in the ...

COL. HASSAN:

That'll be in this document here. No, this one here. I think we've got a few of the sections there. Let's see, it will come under recreation and subsistence.

MAJ. PECK:

It will be under the full document as well, that this Executive Summary addresses it.

COL. HASSAN:

Eagle Village, Level III. Lime Village, Level II Impact. So in other words, what we would be concerned about is if we were to do any sort of increase in flying during your major subsistence periods, okay, this general area up into here is where we saw your predominant subsistence area, where we would affect it. So our concern, that we pointed out was, is if we increased our flying activities to any significant

number during, you know, and that period is really probably August through September, that's what we need to be sensitive to. So that's the identification, is that we would not, you know, one of the things ... since we've predicted this, one of the things we have to do to counter it is say, during those periods we would not surge flying activities to disturb your hunting activities. And we do that today, in fact. We will not fly, like up in this part of the state, we will not fly ... we don't do major flying exercises down here which is where you involve a lot of planes. We do them up here. And we will not fly those during ... a period of time during the subsistence hunting season. So yeah, that, specifically, is what was ... subsistence and air safety, I think, was the other one that came out.

MAJ. PECK:

I think you meant to say rather than increase our flying, but if we were to change or adjust our pattern or altitudes.

COL. HASSAN:

In this case, it's a surge. And again, where Maj. Siter had already pointed out, we're concerned about this corridor here. At low altitude, if we were to lower the floor in this particular Stony B, you know, we're gonna come into some traffic in there that we have not been, you know, down with ... now, because that floor is 3,000 feet. So once you get below 3,000 feet, you're gonna run into some stuff in there that ...

?

Well actually, in Stony A, unless there's a big increase in traffic, I don't think it has much affect at all.

COL. HASSAN:

No. We're not proposing to do that.

MAJ. SITER:

The proposed action for Stony A is, there is no change in Stony A. Okay. What we have discovered though, is that we do use ... the term surge, what surge means is where we ... is where we fly more aircraft per day than what we do on a routine day. Maybe twice or two or three times as much. It doesn't necessarily all go to Stony MOA. Some of it might go to Sustina. What we're practicing is testing the

ability of maintenance, to refuel and repair and turn aircraft that fly multiple times during the day. So as a pilot, I might fly three times in about a four or five hour period.

COL. HASSAN:

(UNINTELLIGIBLE)

MAJ. SITER:

Yeah.

(SKIP IN THE TAPE)

(laughter)

MAJ. SITER:

So when we surge, what we've looked at --Oh, I'm sorry, go ahead--So, now, I gave the definition of the surge operations, what it would mean, based on this analysis, we have to go back now, look at that impact that we predict with our modelling and then one potential mitigation might be to not do those surge operations during that particular season where the hunting is going on. Okay. And again, because it's such a limited time, that that would be something that we could consider in terms of trying to deconflict it so we'd eliminate the impact. Or at least mitigate it.

COL. HASSAN:

Again, as far as the aviation safety, we ... as I told you in the beginning, I mean we both have the same goal there. We don't want to mess with you and you certainly don't want us messing with you. So ...

MAJ. SITER:

And again, the area was identified as the Kuskokwim and Hollima drainages just down the southern end of Stony B. And again, what we'd be looking at there, is potentially looking at raising the floor just during the period of time where that activity ... that civil activity is out there, so that we, again, try to minimize the interaction of activity.

COL. HASSAN:

Just so you know information-wise, we actually ... this proposal, in total, while we've just focused, you know, where you're interested here, this is not an increase in the amount of airspace we have. We have access to this airspace today. So in

essence, the whole concept here is to adjust these things in such a way, this one we don't need as much, this one is valuable so we'd like to get the floors even. You know, these here we'd like to have access to, the bombing ranges and, you know, they're all different adjustments that we're trying to make just to make this more effective training airspace for us.

MAJ. SITER:

I kind of spoke a little out of turn when I said there was no change for Naknek 1 and 2. In fact, what is happening here, is the hours of operations, a 10-hour operation today, 8:00 in the morning to 6:00 at night, the alert aircraft at King Salmon, as I described earlier for Galena, they were also brought back out of King Salmon. The hours here though, aren't going down to no published hours because we do fly from Elmendorf out to Naknek. We use it on a daily basis. So this was not predominantly an alert aircraft type of airspace, rather a routine airspace. We're cutting it down to five hours is the proposed action here.

COL. HEUPEL:

Now, you're welcome to make any statement. If you'd like to make a statement tonight, there's a written comment period that's now been extended. It was 31 October, now it's 30 November, so that anyone can send in written comments. There's a, I think, a letter inside that Executive Summary that's got the address. Any written comments, whether you or anybody else here in Lime Village, is more than welcome to send in any written comments so that the Air Force receives it by the 30th of November, as far as what the proposal, whatever your views are.

JAMES WILLIAMS:

I haven't heard any adverse comments from anybody in Lime Village about the training. I don't think it has a major effect there, I think it's been a--most of the training is probably done far enough away that it's not even ... they aren't even aware here. Occasionally we do hear booms. Like you said, they aren't close, they're quite a ways out. But, it's not a--it doesn't affect anybody one way or the other. And I don't think--I really haven't heard anybody say anything adverse about the training or training areas.

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COL. HEUPEL:

Well, of course, hopefully, nothing ... even though Lime Village may be out of the area, people would be going up into that area for subsistence or recreational hunting or fishing or anything like that and obviously the Air Force is concerned about anything that, uh, from an environmental standpoint or would cause any kind of adverse impacts to the people out here. So...

COL. HASSAN:

Well, the dialog thing I think is important and the 800 number is there, so if you guys, over time, regardless of whether it's 30 November or not, I mean, if you go up there and you're hunting or you go up there and you're back flying again, don't hesitate to call that number, because we really are trying, you know, clean this up and make it where we both co-exist and it's not a hassle for, you know, either side. So, we're not perfect yet, but we'll hopefully get there.

COL. HEUPEL:

If you don't have anything more, we'll go ahead and close it. Thank you very much for coming tonight and we're gonna leave a few extra Executive Summaries in case anybody else here ... we can leave a few extra of these and you might kind of pass out that 1-800 number and if anybody does want to send in any written comment, we welcome it. Thank you very much for coming. Hearing's adjourned.

CERTIFICATION PAGE

I, Diane A. Beaulieu, do certify that this transcript is an accurate record of the proceedings as recorded.

Dated: 11/2/94 Diane A. Beaulieu

Subscribed and sworn to before me this 2nd day of November, 1994.

Sandra M. [Signature]
Notary Public
My Commission Expires: 8-1-97

Addendum:

The tape and transcript of the Lime Village MOA DEIS hearing were reviewed beginning with the public response given by Mr. James Williams and continuing through the end of the hearing. Corrections were made accordingly to the electronic (disk) and hard copy versions.

Karen McKibbin
Spectrum Sciences and Software, Inc.
November 30, 1994

ALASKA MILITARY OPERATIONS AREA

PUBLIC HEARING

VENETIE, ALASKA

OCTOBER 5, 1994

COL. HEUPEL:

First, thank you for coming. What we'd like to ask you to do is if you could just sign in so that there'd be a record of who was here.

You'll notice there are microphones here and that's because everywhere we go, we're required to type up everything that is said and to insure that any questions, but particularly any comment that people have, concerns that people have, are put on the record so that that can all be considered, and so that, among other things, somebody can't disregard it. It has to be considered. So we ask everybody just to sign in. And it's tape recording us as well and what we are telling you. And then in about a year, and Col. Hassan will explain this more a little bit later, there'll be a final study and that will have the transcripts from all of the hearings that we've done throughout Alaska.

Welcome to this hearing on the Alaska military operating area. We're starting in around 3:00 o'clock and we've had to move that up from the 7:00 o'clock, as I think most of you know, the weather is ... we were gonna try to get up to Arctic Village today and we had to turn around about 10 miles south of Arctic Village and we came back here and we'll try to go back to Fairbanks tonight so that we can give Arctic Village a try again in the morning, if we get lucky.

I'm Col. Jim Heupel. I'm an Air Force judge. In the Air Force, when we do environmental hearings like this, we have a judge conduct the hearing so that I'm coming in from outside, I'm not connected with the Air Force up in Alaska or wherever I hold the hearing, but I can try to be a little bit more neutral and make sure that everybody has an opportunity to speak.

We have with us Col. Rich Hassan. Col. Hassan, standing right here, is the Commander, 611th Air Operations Group out of Elmendorf and in just a few moments he'll explain the environmental process that the Air Force is in right now. Beside him

is Maj. Bob Siter and he is an F-15 pilot, a jet combat pilot. He's also the Chief of Fighter Operations down at Anchorage and he'll talk to you about the proposals and some of the issues that arose a year ago when, in fact, I believe both Col. Hassan and Maj. Siter came through this area with some other people on part of what was called scoping, to try to see what issues were here. We also have Mr. Bill Ham, here in the blue sweater, who is a contractor with the Air Force. He's a civilian who works for a company called Spectrum Software and Sciences and they've done much of the work, done research or gathered information from a variety of sources for things that Col. Hassan will talk about and Mr. Ham will talk about.

As I say, the purpose of the hearing is so that we can tell you, all three gentlemen can tell you, what the Air Force is proposing, what issues the Air Force has studied, what effects upon the environment the Air Force believes could happen.

And then we're here to get your comment, to make sure that you can also convey to the rest of your people here that they can comment. Not only are we doing this hearing here today, but anybody can send in their comments or questions until the 30th of November. The address for that would be ... let's see, it's on a letter inside this ... oh, right here. There's a letter right inside here that's got the address down in the third paragraph where people can send any comments until the 30th of November. Obviously, all of you can do that even though you're here and whether you say something today or not, you can still send in comments and anyone else can send in comments. As long as they're received by the 30th of November, they'll become a part of the final environmental study.

What we're gonna try and do here, just really quickly, will be to give you a short briefing and then we'll ... if you could try to hold your questions until afterwards, fine. If you need to ask your question ... that's why we went ahead and put microphones around now, so that we can try to pick up any questions you might have and we can try to answer them that way and then after the briefing, any comments or any statements or any further questions you have, we'll try to answer those.

Let me turn it over to Col. Hassan.

COL. HASSAN:

Thanks.

We're here to follow up from a visit that we made last year. And we went to the villages in the local area. We've been to ... we were in Chalkyitsik last night. Fort Yukon the night before. Here. And we tried to get into Arctic Village, as the Colonel said. Basically, as part of a commitment that we've made to try and, what we would say, is gain back some trust where we would like to work in a manner of cooperation, in a manner of saying, bringing forward a proposal of what we'd like to do and then get the feeling and the comments of the local folks who have the most knowledge of what the subsistence conditions are, what the wildlife conditions are so that we are totally aware of any potential impact that our flying might have.

Now the first thing you might notice is that the closest point at which we would do any flying activity to you is about 50 miles southeast from your local town here. But we're well aware and we'll talk about that much of your wildlife and subsistence activities go on all through this area and that's why we're here. Last year we got a lot of good comments from local folks here, and in the other villages, which helped us focus our analysis. But basically, what we're talking about here is that we are not looking to change, generally, the way we do flying today. In fact, based on some of the comments that we received and some of the concerns that were expressed, by folks such as yourself, about the wildlife and about the subsistence, part of our proposal here for this Yukon 5 military operating area is to raise the floor. That is, how low we can fly. Presently, it's 2,000 feet and we're gonna raise that to 3,000 feet, would be the lowest point that planes could fly in these areas.

And for those of you who aren't familiar with what these boxes are here, years ago the Air Force was allowed to pretty much fly and do its training wherever they needed to or wherever they felt like they needed to. But back in 1976, the Federal Aviation Administration created these boxes and these boxes are basically dimensions in the sky that are put together to keep ... to confine the military so that the military can only do its training within these military operations area, that high speed maneuver training. And the reason for that is, is so that folks know where that happens. And that, for example, civilian aviators and commercial pilots always know that these are the areas where the Air Force is allowed to do their training during certain hours and certain days of the year. So that's what these boxes are for.

But in this particular area, up closest to you, what we'd like to talk about is ... what the particular proposal is here, again, we're not expected to change it dramatically from the way it is today and what we've found is, is that by raising the floor, that is the lowest point at which we can fly, from 2,000 to 3,000 feet, that the studies that we have been able to get access to, which are done by, not the Air Force, but are done by other agencies and the academic world, that the effect on animals is virtually negligible. That is, for the large hoofed animals, at about ... when you fly at about 3,000 feet, that creates a sound of about 85 decibels, which is a noise level, that through observations, we've seen that the effect it would have on animals is that they may look at the airplane ... at the, you know, at the noise, but that they don't startle and they don't run and they don't over-react to that level of noise. Now below that 3,000 feet and when the noise level increases, there have been observations of animals being affected. But in this particular area, our study, and again I'll have Mr. Ham talk a little bit about exactly where the areas that you folks pointed out to us and some of the other villages, the areas we've looked at where the largest concentrations of animals are, all will be above the 3,000 foot will be the lowest we'll fly.

I'd like to ask Maj. Siter to talk about one other input that we got from you and how that changed our proposal.

MAJ. SITER:

I'll do that, but first I want to explain again about the airspace here. The airspace here, as well as the other airspaces here, have been used ... are presently being used, but we use them during exercises. Whenever they're used during the exercises though, you've noticed a 2,000 foot floor, the aircraft fly much higher than that because the area that we train here is very far away from some of the bombing ranges that we use. And when we create these exercises, the aircraft is stuck very high up here and only when they get down to these areas here do they go lower. Okay. In fact, the lowest altitude available in these airspaces, it's a lot lower, 500 foot, to be trained down here. So again, this is a much higher training area.

Additionally, when we train in here day-to-day, if the proposal's approved, the aircraft, the number of aircraft per day in that airspace is less than one airplane per day. And, in fact, this airspace is also unique in that of all the other airspaces

have published hours for when you can use the airspace. For example, this airspace is ... you can use it from 8:00 in the morning and 6:00 at night, Monday through Friday. But this airspace won't even have any published hours because we're gonna use it so infrequently that whenever we need to use it we'll call the Federal Aviation Administration, ask for them to open the airspace for a few hours on one day of the week, some aircraft will go in there and do some training and then when the planes leave, the airspace will be closed. And so again, the use is much lower than any of the other airspaces.

We were here last year, and several places besides Venetie. Suggestion was could we do some training in other areas of the state that we could reach with our aircraft. Because you can only travel so far with your plane before you run out of gas. So we can only go so far from our bases. One suggestion was instead of having airspace up here, Yukon 5 and Yukon 4, this area, is to substitute airspace down here. So we've looked at this alternative. Again, no airspace here. Down here, this area. Here is the town of Tok right here, Fairbanks on the map is over here. And again, looking at that as a possibility. And that's been analyzed and in the Executive Summary you have and in the full document, I assume you have in the Tribal Council office, we've assessed this alternative in terms of its ability to meet our needs, as well as what the environmental impacts potential could be for that alternative.

While we were here also, a lot of issues were identified as far as concerns. The four main areas were subsistence, wildlife, recreation and aviation safety.

And I'll turn it over to Col. Hassan and he can discuss that.

COL. HASSAN:

In terms of the wildlife and subsistence, we ... I mentioned just a few minutes ago, when we were in Fort Yukon we were working with the CATG and we have started a working relationship where as we continue to monitor the effects on animals, cause that's a long-term look that we want to do, it's not just something we come in and say, "Okay, everything looks good." and then leave. We want to make a long-term commitment to that and the CATG is going to work as a focal point out of Fort Yukon and they're going to work with your resource guys. Steve told me that they would contact your CATG resource individual, as well as in Chalkyitsik and

Arctic Village, and we're looking to do a long-term monitoring of any impacts or anything, maybe perhaps that we missed in terms of the wildlife and subsistence. So, we're looking forward to that relationship.

What I'd like to do is just ask Mr. Ham to point out some of the things that were raised to us, some of the areas, so that if you see some stuff on here that we've missed, we'd like you to point it out. And you can talk about the various species.

BILL HAM:

As we all know, there are animals everywhere up here and we talk about the moose and the caribou, the waterfowl and the bears. The main species that were pointed out to us in some of the subsistence areas, the moose seemed to be the most wide-ranging and generally they're along the main river trends in this area. The moose were identified to us as being predominantly hunted from down here near the Beaver area, across to Birch Creek, Fort Yukon, basically filling in this whole area in here. Down along the Yukon River, a little bit across the Birch Creek drainage, on up the Porcupine, almost all the way to the Canadian border, was noted to us. Along the Black River and down in towards Yukon 5 along the (UNINTELLIGIBLE). Those are the main moose areas and generally within a few miles of the river, except for this more expanded area here around Fort Yukon and Birch Creek.

Caribou were generally identified as ... the main concentration identified to us was this general area down here, south of Birch Creek and over toward Beaver.

For the waterfowl, it was the same general area that was noted for the moose, except not quite so far up the Porcupine this way and not quite so far along the Black River.

For the bears, and they generally were, again, were along the river trend and in this general area here, except the bear area ended here just right past Chalkyitsik.

It has also been noted to us there's about 40 to 50 people that regularly trap in this area here. Generally north of Chalkyitsik. All through here. All the way to the Canadian border. And that was also notified for the small animals, the lynx, the beavers, the martens and that species. And the same thing applies to them. If we get above, you know, 3,000 feet, it appears from all the studies that we've seen that that magic noise level of 85 decibels is the one that we want to stay above. Or keep the

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noise below that level or above 3,000 feet to minimize the impact on any of these species.

COL. HASSAN:

So basically, one of the last ways I'd like to just point out that we're trying to work very closely with the folks in the communities. We do something today called mitigation. It's kind of a fancy term which just means if we know where there is potential concerns, we can work with the local people and try to alleviate those concerns. Let me give you a couple of examples.

In the Circle Hot Springs area, for example, that community down there, Central and Circle Hot Springs, is sort of right in the middle of where a lot of our flying activity goes on. And they were concerned about the noise that they were hearing ... the supersonic booms, for example. So what we've done in conjunction with that concern is, we've drawn a circle that's 10 miles in diameter around that area and 35,000 foot up and we put a restriction on our pilots that they will not fly supersonic anywhere around that area. We were there two weeks ago and the community is feeling a lot better. That has solved their concern about the noise.

Back to the wildlife. As you all know, the Peregrine falcon has been on the endangered species list for many years. These lines you see on this map here, we did in conjunction with the Alaska Department of Fish & Game and for the last three years, we have flown a two-mile restriction and a 2,000 foot floor. That's what these lines mean here. I guess you can say that the proof is there. We have just recently been told that Alaska, in this particular area right here, is the only place in the country that the Peregrine falcon is on the upswing. Everywhere else, it's still in decline. And we actually heard today that as of 1 November, it was going to be taken off the endangered species list up here. So, we're, you know, we're not saying that we've got all the answers, but we are saying is, we are committed to working with the local communities to find out what your knowledge is, find out what your concerns are and the proof is, is that we've already been able to work things out elsewhere. So that if there are concerns and if there are problems, then we want to work with you to solve them, because the ultimate and the last thing I'll say in this long talk is this, we have training that we've got to do for our pilots. We've got commitments around the world

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that we've got to satisfy and in order for these guys and gals to fly these planes, they've got to get out and train. On the other hand, the Air Force fully understands and is committed to making sure that we work with the citizens and we work within the environmental constraints that we are presented with. And that's where we're trying to find a balance. And we feel like we're working our way toward that and with your help we can keep getting there.

So, I'll shut up and turn this back over to Col. Heupel and answer questions if we can.

COL. HEUPEL:

Let me ask, do you have any questions that you'd like to ... I know that's a lot of information. The Executive Summary that you have condenses it some, but the full environmental impact study is four volumes about that thick and I believe a copy was sent here to your office, but it's a lot of reading and quite frankly, I don't understand it all. I'm not necessarily a scientist, but it does have a lot of the maps in there on wildlife. But if there are some questions that you have from the presentation and what you've looked at here, we certainly can have the people try to answer them. If you don't have the questions right now, you know, if you have questions come up later on, send those in and we'll try to answer them. And if you don't have questions right now, and if you have anything you'd like to say, what you think about it, regardless of what you think about it, that's fine, I'd be happy to take your statements, also.

QUESTION #1:

I got one. I know there's a lot of these training areas. They're all out in the boonies. But can you just do it closer to the metropolitan area where they're used to all that noise impact?

MAJ. SITER:

That's an interesting point, sir. One of the things ... when I was here last summer, last fall, rather, I went through a lot of the, sort of the parameters and the things that we have to think about when we decide where airspace goes, because a lot of it's not necessarily under our control. A couple of key things, the bases here, Anchorage and Fairbanks, that's important, okay, because that's where our bases are and that's where our aircraft take off from. The second thing is the bombing ranges.

And there's only three of them in this state. One right here outlined in red, another one here and another one here. One of our difficulties are, is they're all centrally located right here. Okay. They're not anywhere else in the state. The aircraft that are now in Alaska, unlike what were here for decades, a long, long time we did air defense of Alaskan airspace. Where they had airplanes on alert at King Salmon, Galena, and we protected the airspace out over Alaska. That still happens today, but that's not the only thing we do. In fact, it's not even the primary thing we do anymore. Now, our aircraft are more air-to-ground. And what it is, it's aircraft that can carry munitions that can be taken to a ground target and released on a ground target. And so these ranges is where they practice to do that. And so the focus now is on airspace in this area. Realize we still do air defense missions out here and practice air-to-air training, but we do mostly air-to-ground training. That's why this area is the only area in the state that can satisfy our need. Okay. So that's why we're looking in this area.

Other things about where airspace are located is the FAA has highways in the sky and they're spider webbed, if you will, all over the state. Okay. Well, these military operating areas are actually located in between where these highways are. Because what they don't want to do is have military doing its turning training, maneuvering training, and having airliner traffic interfere with that. Okay. It would be dangerous. And so we have to ... when we look at airspace, for example, one of the reasons why we can't really fly over here, there's a lot of airways through here. Otherwise, we'd be looking over here.

So understand that there's a lot of structure out there that we've had to work around. Not Air Force structure, mind you, but also Federal Aviation Administration structure.

COL. HASSAN:

How about the suitable size...He's saying, you know, why do you need so much space?

MAJ. SITER:

Well one of the other things that we talked about, the exercises that we do, here's how the airspace is arrayed today, here. What this provides for us and we've been doing these exercises for a number of years, is a large enough airspace to bring

in enough aircraft to practice what ... to try to re-create, if you will, actual aerial combat to the best of our ability in peace time. We don't shoot any live missiles at each other, we practice and what we learn from this is how to operate in large groups. If you don't practice that in peacetime ... what we have discovered from the Viet Nam war is that young pilots who have never done that type of training before or all they've ever done is flown against one other airplane or two other airplanes, they're not ready for real combat and we had a lot of losses for our young pilots on their first 10 missions. Almost all our losses in Viet Nam occurred with pilots that only had 10 missions. If we could get them through that initial period, they usually went through 100 missions in Viet Nam and came back alive. And so what we're trying to do here in training is create that environment in a simulated fashion so that they will be more prepared if a war were to break out.

QUESTION #2:

The other thing is on those animals, they are exposed to constant noise and stuff. They become very vulnerable to other predators and any other machines that come around. It's not just the sound. It's also psychological.

MAJ. SITER:

There is a--one of the things about, the Colonel Hassan used the term mitigation. We have a list back at the headquarters that applies to all the operations units that fly in Alaska. There's 38 areas or points on that list. A number of them are not just ... a number of them are for wildlife. For example, I'll point down to this area here. This area is a sheep lambing area. We already know today that the sheep in this mountainous area here use this area for lambing. But we know also when it is. So what we do in consultation with the Alaska Fish & Game and U.S. Fish & Wildlife is, we ask them has this area moved and if it's moved slightly over this way, what we do is, we have our pilots fly higher altitude or stay away from that area during that two or three week period when that critical life cycle is occurring.

Same thing with ... this thing is also in the Peregrine falcon area. That's also most of the summer 'cause that's when the birds are most vulnerable.

We have caribou calving areas. That's the caribou calving area right there. The key thing about this list is, the list didn't come ... we didn't come out

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with 38 points. The list has evolved over time to add up to 38 points. Okay. What we're trying to say here is, as we become more aware through interacting with the federal and state agencies, as well as the public and the villages, that list becomes edited. Because as we become more knowledgeable, we're always trying to seek that balance and as we get out of balance, we try to fix it. And we can only do that through interacting with everybody. And that's why, again, we want a long-term relationship so that the balance that hopefully we find, can be kept in balance.

COL. HEUPEL:

Part of the thing with that is if there are some specific areas that are especially vulnerable, it would help the Air Force a great deal if you could tell the Air Force about these so that they can be added to the list or so that there can be communications and try to work out where sensitive areas are, if they haven't been taken into consideration.

MAJ. SITER:

One other thing we did this summer, we had the sound experts come up with sound monitors to listen to aircraft noise and they were doing some specific tests and one of the tests that we did was along the Tanana River where we were looking at the reaction of Peregrine falcons and other raptors along the river as planes overflew. We also put some sound monitors out in the Circle-Central Hot Springs, uh--Circle Hot Springs--area to monitor sound on the human areas. The villages. In between those tests, we asked that if we could keep the sound monitors and test some of these mitigation measures. For example, you see some of these are circles, okay. What we were doing is asking the sound monitors to be moved to the distances we use for our mitigation program. Some of them are a mile in radius, others are two miles or three miles. Some floors are 1,000 foot, 2,000, 3,000, 5,000. We had the aircraft fly at those exact different parameters to see how much the noise went down. And so that that way we would have a better idea of how is our mitigation working for these 38 areas that we already have and how might we select the distances and altitudes for future mitigation. So obviously, we're trying to learn more about how to do this right. And again, the key, I think, is working with the public. Getting your input and then properly applying the mitigation so that it's 1) effective and 2) that again, it's not

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static. If we need to change it a second time, then the idea here is that we'll consider it again. Again, trying to find a balance.

QUESTION #3:

Last year they had a strict controversy about wolf control. They were talking about all this--all the population of wolves and all that (UNINTELLIGIBLE) the caribou herd around the Fairbanks area. They're blaming the wolves for all that stuff, but they're not looking at themselves, you know. The caribou have a migration route. The reason they have those routes is because there it's the best way to travel and they're safe. And so when you block those migration routes, they have to go into unknown area, so they're vulnerable to wolves and whatever predators that come their way. And blaming the wolf, with all their snow goes and all them racket they make along, you know, in that area, people don't look at themselves, they look at other animals, something to blame. We don't pay too much attention to it. Now it's just the Fish & Game, you know they told us (UNINTELLIGIBLE)...

MAJ. SITER:

That's one of the reason ... when we were here last year, we actually put up the Fish & Game maps against starting ... that was the starting point. Not an end-point, but a starting point, and the villagers, not just in this village, pointed out and updated where the migration areas were, where the wintering areas were and adjusted the information and we used that in the study. So again, that's another reason that we ask you to go through the document as best you can, but realize the Executive Summary has ... it's cross-referenced to the full document, so please look through the Executive Summary for the areas that are important to you and then that will lead you into the full document for the maps and everything else. So you don't have to go through the full document to find what you're looking for. And we would request that you do that so that if there are certain corridors that we've not accounted for, then we'd be looking for that input.

COL. HASSAN:

That's why we ... I mentioned the CATG. We heard what you said last year and so this year we want to make sure, for the long-term, when we actually go into doing some monitoring of these actions, we don't want to just have to rely on ADF&G

or U.S.F&W, we'd like to work long-term with CATG and have the input of the folks saying here's what we observed to be happening. And so that's why we want to get involved in that relationship. I hear what you're saying.

COL. HEUPEL:

And you're not the first people that have said that same thing about concerns about some of the other agencies.

Does anyone ... do you have anymore questions, sir, or does anyone else have any other questions or comments?

QUESTION #4:

(UNINTELLIGIBLE) come up with something.

COL. HEUPEL:

Let me tell you, none of us are the decision makers. The decision maker is ... the first decision maker, I guess if you will, is a Four Star General who's the commander of the Pacific Air Forces in Hawaii. That's got to be approved by the Secretary of the Air Force and then any decision that the Air Force makes still has to be approved by the Federal Aviation Administration. So, yeah, and there will be no decisions for another year. They'll be taking everything that we've done with these public hearings and start working on the final Environmental Impact Statement starting in December and the beginning of the year. And let's see, you would be on the mailing list and you'll get that, a copy of that. That will go ... the final will go to the same people the draft went to and so a copy of that will come here also. But obviously, it's important in going from a draft to a final. If there's problems with the study or if there is flaws in it, we want to make sure that we do the best job we can to make sure that the decision makers can make the right decision and I want to make sure that you have input into what's happening, as well.

QUESTION #5:

There's a place called Table Mountain and they got some kind of a device on it. They're trying to get them to get it out of there.

COL. HASSAN:

Where's this at?

QUESTION #6:

It's kind of a nuclear thing.

COL. HASSAN:

Oh, you mean Burnt Mountain.

#6A:

Oh, Burnt Mountain. Burnt Mountain, that's it.

QUESTION #7:

That first year they were there, that was back in '73?

COL. HEUPEL:

I heard a comment about it at Fort Yukon, I believe it was, which was the first time that I had heard anything about it, but I don't remember if it was the First Chief or the Executive Director had commented about concerns with the Burnt Mountain.

QUESTION #7A:

That's what I mean. Things like that can really drive you psychologically goofy, you know. And it's the same for an animal. A strange sound. It's just that. Strange sound, (UNINTELLIGIBLE) Same thing with human beings, so. I'm just saying that there's more than sound involved.

QUESTION 7B:

Yeah, that's the year that we moved down from Arctic Village to (UNINTELLIGIBLE) and then we moved up to (UNINTELLIGIBLE) Village about 20 miles southeast of (UNINTELLIGIBLE) Village and the Air Force kept flying over us, you know. (UNINTELLIGIBLE).

COL. HASSAN:

This is down here? And they shouldn't, on a routine basis, we wouldn't be up in that area.

COL. HEUPEL:

Maj. Siter, could you talk about the 1-800 number?

MAJ. SITER:

Yeah. One of the things that we did this past summer, to again and in concert with trying to be as accessible as possible, is that we have 800 service down to Anchorage so that agencies, as well as the public, can call us if they see activity that doesn't make sense to them or that has—creates a problem for them, then they can call

the number at any time and we've got it 24 hours a day. We either have a person there who will actually answer the phone or you can leave a message and we will call you the next day and then we can talk one-to-one, find out what your concern is and then if it's something about an aircraft that's flying in an area you don't think the aircraft should be there, then we'll ask you specific questions like what day it occurred, the time and the location. Those are the big things, okay. The number of aircraft, the type of aircraft it's nice to know, but it's not necessary for us to do an investigation. The aircraft that we fly today in this state, predominantly have video recorders on the aircraft. We can freeze the tapes, if you will, take the tapes, review the tapes. We have other methods of being able to determine which aircraft were there and then, obviously, to talk with the pilots and find out exactly what occurred. And obviously, the key here is to respond back to you. If there's some activity that we've been doing that is allowable to us but we were not aware of its impact, that's another reason for you to call. So that, again, as we learn and as we're flying in this state, we want to know what our impact might be on everyone else. That's another reason to call us. If we find that we can do our training in another way, we have some latitude, some ability to maybe change or mitigate, that's another reason for you to call.

COL. HEUPEL:

The number is ...

CAPT. TROEBER:

1-800-538-6647.

QUESTION #8:

This is directly to the Air Force?

MAJ. SITER:

This is straight down to 11th Air Force Headquarters in Anchorage. And again, we're the kind of central, I'll call it clearinghouse, for all the flying that goes on

in this state. Okay. And the idea here is so you have one office to call, not just anywhere, one, you know, one of the other bases, one location.

QUESTION #9:

One main office. 'Cause we got this one main office, right.

MAJ. SITER:

There, that's right. Exactly. That way you know you're talking to somebody who can get you a quick answer and somebody who has been tasked to do it so that you have the same sensitivity and the view that, obviously, we want to have with the people. Which is be accessible and be responsible.

COL. HEUPEL:

I've been told it's a small office, so you may get a tape machine, but if you go ahead and leave your name and phone number and what you've seen, they'll get back to you. I know sometimes people get nervous about getting answering machines. We do back in the "lower 48", too.

QUESTION #10:

Yeah. Quite a few of my friends got answering machines and when that answering machine comes, what I was going to ask sometimes I forget to. Oh, I'll call back.

MAJ. HEUPEL:

Is there anything else that anyone can think of right now?

Well, we apologize for having to do this early and we apologize to the rest of the people in your Village for not being able to do it at 7:00 o'clock tonight. We have to be in the air before 6:00 o'clock because the pilots ... there's something called a crew rest for safety, they've got to get enough rest, otherwise there's violations of flying regulations, so that's one of the other problems that we've got. But the weather's the biggest problem and I hope ...

COL. HASSAN:

The real problem is the big guy is like Cinderella, he turns into a pumpkin at 6:00.

COL. HEUPEL:

I hope you're aware it is what they're telling us, it could be tomorrow. It looks pretty good out there, but we thank you for listening to us and we'll leave some extra booklets for your people and please remember, if there is anything that anybody wants to send to us, any comments or if you identify some specific areas that we need to be looking at to make sure that the coverage is changed, please let the Air Force know and ...