Matanuska-Susitna Borough

Joint Land Use Study

United States Army, Fort Richardson

United States Air Force, Elmendorf Air Force Base

Alaska National Guard

Matanuska-Susitna Borough, Planning Department

Produced by:

WHPacific

With Assistance by:

EDAW | AECOM

March 2010

Matanuska-Susitna Borough Joint Land Use Study

This study was prepared under contract with the Matanuska-Susitna Borough with financial support from the Office of Economic Adjustment, Department of Defense. The content reflects the views of Matanuska-Susitna Borough and does not necessarily reflect the views of the Office of Economic Adjustment.

CODE ORDINANCE

By: Borough Manager
Introduced: 04/06/10
Public Hearing: 04/20/10
Adopted: 04/20/10

MATANUSKA-SUSITNA BOROUGH
ORDINANCE SERIAL NO. 10-038

AN ORDINANCE OF THE MATANUSKA-SUSITNA BOROUGH ASSEMBLY ADOPTING THE JOINT LAND USE STUDY, AND AMENDING MSB 15.24.030, COMPREHENSIVE PLAN AND PURPOSES

BE IT ENACTED:

Section 1. Classification. Section 1 and 2, this ordinance are non-code, Section 3 is of a general and permanent nature and shall become a part of the borough code.

Section 2. Approval of study. The Matanuska-Susitna Borough Assembly does hereby adopt the Matanuska-Susitna Borough Joint Land Use Study.

Section 3. Adoption of subparagraph. MSB 15.24.030(B)(25) is hereby adopted to read as follows:

(25)Matanuska-Susitna Borough Joint Land Use Study, adopted 2010.

Section 4. Effective date. This ordinance shall take effect upon adoption by the Matanuska-Susitna Borough Assembly.

ADOPTED by the Matanuska-Susitna Borough Assembly this 20 day of April, 2010.

TALIS J. COLBERG, Borough Mayor

ATTEST:

LONNIE R. McKECHNIE, CMC, Borough Clerk

(SEAL)

PASSED UNANIMOUSLY: Woods, Houston, Arvin, Ewing, Bettine, Colver, and Halter.

HEADQUARTERS
ALASKAN COMMAND (ALCOM)
ELMENDORF AIR FORCE BASE, ALASKA 99506

JAN 28 2010

Lieutenant General Dana T. Atkins
Commander, Alaskan Command
10471 20th Street, Suite 139D
Elmendorf AFB AK 99506

Mr. John Duffy
Manager, Matanuska Susitna Borough
350 E. Dahlia Avenue
Palmer AK 99645

Dear Mr. Duffy and Borough Assembly Members

Alaskan Command (ALCOM) greatly values the historically positive and mutually beneficial relationship between Fort Richardson, Elmendorf Air Force Base and the Matanuska-Susitna Borough. This enduring bond is important to ALCOM, and I am fully committed to preserving this relationship. I respect the Borough's responsibility to plan for and manage its growth and acknowledge the many competing demands and challenges faced in the process. I commend the Planning Commission for its diligence in reviewing and forwarding the Joint Land Use Study for consideration.

As you know, both Fort Richardson and Elmendorf Air Force Base are of strategic importance to our collective national defense and to ALCOM. The two installations are critical components of our national security, directly supporting the people of the United States in a very tangible manner with unique sets of capabilities that cannot be duplicated elsewhere. ALCOM and the Matanuska-Susitna Borough must continue to work together to preserve that vital capability as a fundamental element of our national defense.

The Joint Land Use Study program offers technical and financial resources to assist local efforts to 1) plan and carry out compatible land use around military facilities; 2) engage the private sector to support compatible land use; and 3) partner with the military as they seek civilian land use activities consistent with the military mission. The Matanuska-Susitna Borough Joint Land Use Study was an excellent opportunity for the Borough, the Air Force, Army, National Guard, and interested landowners and citizens to further consider growth in the Borough while exploring alternatives. I encourage the Matanuska-Susitna Borough Assembly to adopt the Joint Land Use Study into the Comprehensive Plan.

It is my goal to continue to work with the Borough to minimize the potential for future conflict in order to sustain a long standing relationship between the Borough and ALCOM.

Sincerely,

Dana T. Atkins

DANA T. ATKINS
Lieutenant General, USAF
Commander

cc:
ALCOM/J02/J4

Guardian of the North

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Acronyms

AAC	Alaskan Air Command
AACS	Airborne Air Control Squadron
AAF	Army Airfield
ACMAC	Alaska Civilian Military Aviation Council
ADF&G	Alaska Department of Fish and Game
AGS	Air Guard Station
AFB	Air Force Base
AGL	Above Ground Level
AICUZ	Air Installation Compatible Use Zone
ALCOM	Alaska Command
ANR	Alaskan North American Aerospace Defense Command Region
ANSI	American National Standards Institute
APZ	Accident Potential Zone
AS	Airlift Squadron
ATG	Alaska Territorial Guard
BEEF	Base Emergency Engineering Force
BRAC	Base Realignment and Closure
CWF	Civil Works Facility
CZ	Clear Zone
dB	Decibel
DMVA	Division of Military and Veterans Affairs
DNL	Day-Night Average Sound Level
DoD	Department of Defense
DZ	Drop Zone
EA	Environmental Assessment
EIS	Environmental Impact Statement
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FS	Fighter Squadron
FY	Fiscal Year
GIS	Geographic Information System
IENMP	Installation Environmental Noise Management Plan
IFR	Instrument Flight Rules
INRMP	Integrated Natural Resources Management Plan
JLUS	Joint Land Use Study
LATN	Low Altitude Tactical Navigation Area
LLTA4	Low Level Training Area 4
LZ	Landing Zone
MACA	Mid-Air Collision Avoidance
MSB	Matanuska-Susitna Borough
MOA	Municipality of Anchorage
MSL	Mean Sea Level
NLR	Noise Level Reduction
NORAD	North American Aerospace Defense Command

ONMP	Operational Noise Management Plan
PACAF	Pacific Air Forces
PACOM	Pacific Command
PAO	Public Affairs Office
RASP	Regional Aviation System Plan
SPUD	Special Land Use District
USAF	United States Air Force
USARAL	United States Army Alaska
USARAK	United States Army Alaska
VFR	Visual Flight Rules
WG	Wing
WWII	World War Two

1.0 Study Purpose and Process

1.1 Introduction

Encroachment issues around many military installations across the nation have become a concern for military officials and local planners. To date, incompatible land uses between the Matanuska-Susitna Borough (MSB) and the nearby military installations have been limited. However, rapid growth in the borough and a number of development projects may lead to future encroachment issues. This study examines potential issues and provides an implementation strategy to promote compatible land use.

Encroachment near Military Installations

"Encroachment can threaten public safety because people located near military installations are potentially exposed to artillery fire, aircraft noise, dust and even accidents. Ultimately, military installations may be forced to close if encroachment restricts training and operational missions. Yet military bases are often critical to state economics, generating thousands of jobs and billions of dollars in economic activity and tax revenue. In addition, these military installations often make significant contributions to state homeland security activities."

NGA Center for Best Practices, June 2005

The MSB lies in the heart of south central Alaska, encompassing more than 25,000 square miles of rolling lowlands, mountains, lakes, rivers, and streams. This provides an ideal setting for certain training operations of its two neighboring military installations, Fort Richardson Army Post and Elmendorf Air Force Base (AFB). Nearby mountain ranges and plains offer airmen and soldiers the opportunity to learn mountain/glacier warfare and rescue techniques. Air operations at both installations have increased since their founding in the 1940s, as has the population of the borough.

In 1985, the Department of Defense (DoD) initiated the Joint Land Use Study (JLUS) program to create a participatory, community-based framework for land use planning around military airfields. The objectives of the JLUS program are two-fold:

- To encourage cooperative land use planning between military installations and the surrounding community; and
- To seek ways to reduce the operational impacts of military installations on adjacent private land.

The MSB has partnered with the U.S. Army, the U.S. Air Force (USAF) and the Alaska National Guard to conduct the MSB JLUS. The study explores opportunities to accommodate necessary growth and to maintain the regional economic sustainability associated with Fort Richardson Army Post and Elmendorf AFB.

The JLUS process encourages residents, local decision makers, and installation representatives to study issues of compatibility in an open forum, balancing both military and civilian interests. The resulting recommendations are intended to guide the local government and the military in implementing appropriate land use controls around military installations as well as other mitigation measures.

1.2 Study Objectives

The purpose of the MSB JLUS is to provide recommendations regarding land development policies and to present a compatible implementation strategy that supports the military's mission in the study area. Specifically, the study objectives are, at a minimum, the following:

- Identify land use issues that may impact the operational utility of Fort Richardson and Elmendorf AFB as well as the surrounding areas.
- Identify actions the MSB can pursue to ensure compatible development.
- Create an action plan that DoD and MSB can follow that will serve both military and community interests.
- Identify mechanisms, planning processes, and communication channels to ensure positive dialogue and thus minimize the potential for conflicts.

These specific objectives balance the primary goal of achieving long-term compatibility between military operations and the economic and social growth of the surrounding area. These objectives are not limited to growth but also strive to improve the quality of life in areas affected by ongoing military training operations.

1.3 Study Area

The MSB JLUS addresses the airfields and lands in the immediate vicinity at Fort Richardson and Elmendorf AFB. The following military facilities are included in the study area:

- **Fort Richardson** is located south of the MSB and within the Municipality of Anchorage. It encompasses approximately 62,000 acres. Fort Richardson is home to the 4th Brigade (Airborne), 25th Infantry Division and its supporting units. It contains one airfield, Bryant Army Airfield, operated by the Alaska Army National Guard.

- **Elmendorf AFB**, which encompasses 13,000 acres, is located south of the MSB and approximately 1.6 miles from Point MacKenzie. It hosts the Eleventh Air Force along with a number of supporting units.

- **Alaska National Guard –** The Alaska Air National Guard is in the process of moving their operations from the Ted Stevens Anchorage International Airport to Elmendorf AFB. The Army National Guard operates out of Fort Richardson. They both have training areas in the MSB. Areas used by the Air National Guard and the Army National Guard are described below.

  Low Altitude Tactical Navigation Area (LATN) - The Alaska Air National Guard training area, called the Low Altitude Tactical Navigation Area or LATN, is proscribed by the following latitudes and longitudes: 61N 144W/61N 152W; 66N 152W/66N 144W. The area is larger than the MSB, extending to Chitina on the southeast, Tyonek on the southwest, and just below the Arctic Circle to the north. Fixed-wing aircraft may train at 300 feet above ground level (AGL) in most of the training area. The exceptions are when flying over Palmer and Wasilla and over the Susitna Flats Refuge during bird breeding season. Low-level flying is also not allowed in Denali State Park, or Denali National Park and Preserve. The Air National Guard primarily uses only three landing zones (LZ) in the area called Low Level Training Area 4 by the Army National Guard.

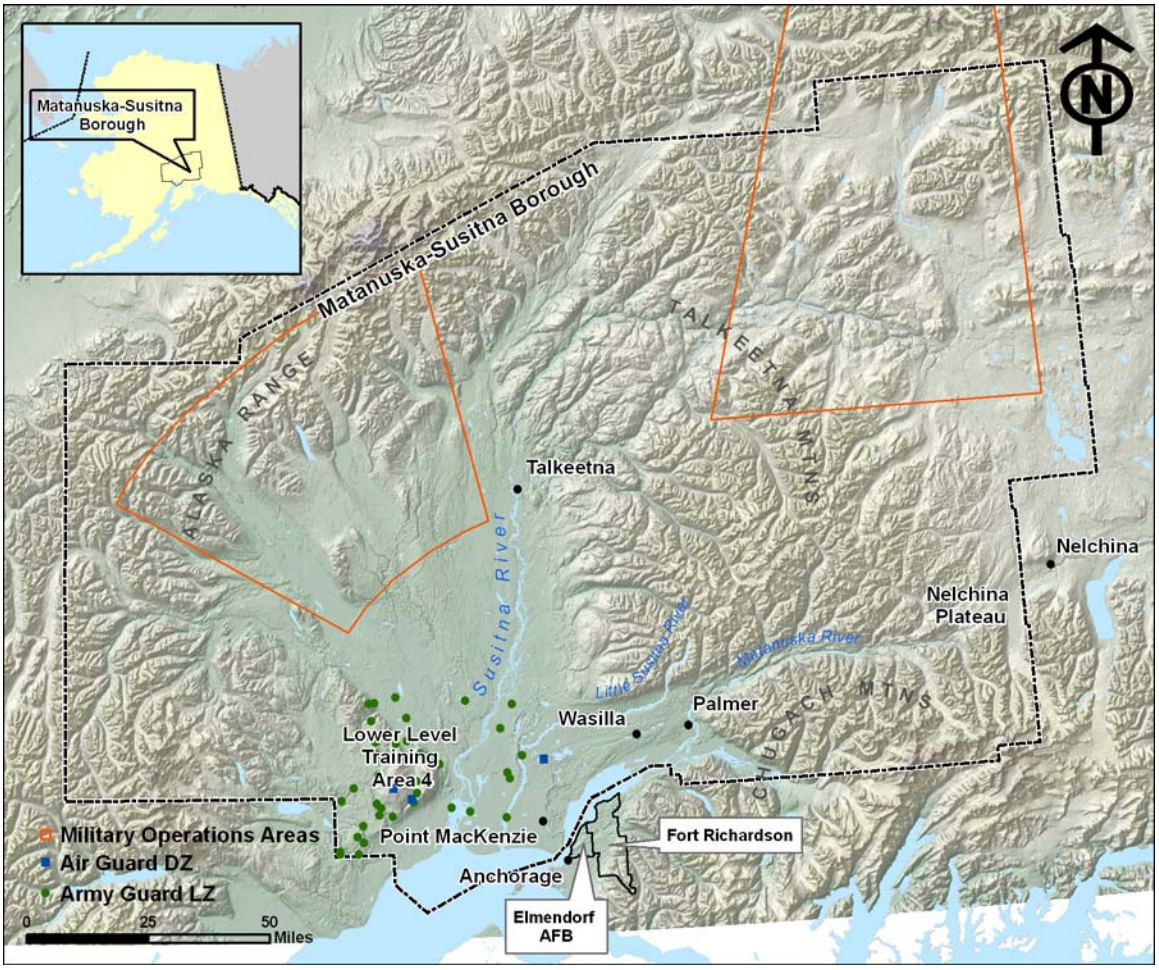
  Low Level Training Area 4 - The Army National Guard has helicopter landing zones in Low Level Training Area 4 (LLTA4). The training area is bordered by the Little Susitna River on the east, Mount Susitna, and Alex Lake in the Point MacKenzie area. The Army National Guard has many landing zones identified in LLTA4.

Also within the study area is the Susitna Military Operations Area (MOA) and Military Training Routes (MTR). The MOA is primarily used by fighter aircraft with a floor of 10,000 feet MSL or 5,000 feet AGL, whichever is higher and subsonic airspeeds for air-to-air and air-to-ground training. The MTRs are used by C-17 and F-22 aircraft at low altitudes and at speeds up to 550 knots. There is also a C-17A/C-

130 Visual Operating Area used by C-130s and C-17s for low level VFR training and at low altitudes and speeds up to 250 knots.

Figure 1 shows the JLUS study area.

Figure 1 Study Area Map



1.4 Participating Stakeholders

The involvement of key stakeholders and community perspectives in developing the final recommendations is an essential element of the JLUS process. The MSB JLUS used two committees for decision making throughout the process and augmented this with interviews with other key stakeholders. The committees are described below.

1.4.1 Policy and Technical Committee

Two committees, a policy and a technical committee, had oversight of the JLUS, each with specific responsibilities. These committees met throughout the planning process. Members included military and civilian staff from Fort Richardson Army Post, Elmendorf AFB, Army National Guard, Air National Guard, MSB staff, government officials (MSB Assembly members, Planning Commissioners, and Federal Aviation Administration staff), and other stakeholders. Committee members are listed in Table 1.1.

Table 1.1 JLUS Policy and Technical Committee Members

Members	Responsibilities
Policy Committee	
MSB Manager MSB Planning Director MSB Community Development Director Elmendorf AFB representative Fort Richardson representative National Guard representative MSB Planning Commission member MSB Assembly member	• Policy Direction • Project Oversight • Monitoring • Study Adoption
Technical Committee	
MSB Planning Dept. staff Elmendorf AFB Planning and Engineering staff Fort Richardson Planning and Public Works staff National Guard Planning, Environmental Protection Aviation and Engineering staff Stakeholders	• Technical Issues • Alternatives • Report Development • Recommendations

The Policy Committee met in person two times during the course of the study and corresponded by email throughout the project.

- August 22, 2008 – Policy Committee kick-off meeting
- February 26, 2009 – Combined Technical and Policy Committee meeting to review draft recommendations

Technical Committee meetings occurred on the following dates:

- July 15, 2008 – Technical Committee project kick-off meeting
- October 15, 2008 – Review of stakeholder interviews and issues
- December 3, 2008 – Review of public meeting input

- February 26, 2009 – Combined Technical and Policy Committee meeting to review draft recommendations

1.5 Public Participation

In addition to the JLUS Advisory Committees, planners provided numerous other opportunities for the public and stakeholders to get involved in the JLUS process including public open houses, community council meetings, targeted interviews, and a project website. These are described below, and the results are summarized in Appendix A.

1.5.1 Public Open Houses

The JLUS team held public open houses at key milestones in the planning process. Open houses in the first round were held at the Settler's Bay Lodge, Willow Community Center, and the Glacier View Bible Church. These meetings gave residents an opportunity to discuss the existing issues, review draft recommendations, and provide input on implementation strategies. The open houses consisted of a brief presentation on the MSB JLUS by the MSB project manager and project consultant, followed by general discussion and a question-and-answer session. Representatives of the Technical Committee attended some of the open houses. The second round of open houses was held in conjunction with community council meetings in Big Lake and Glacier View. Meeting summaries were posted on the website and are included in Appendix A.

Public open houses were held on:

- **August 11-14, 2008 –** Planners provided an overview of the JLUS purpose and goals and a brief summary of existing conditions. Issue identification was a main topic of discussion.
- **January 14 and 27, 2009** – Planners presented the draft recommendations and discussed ways to modify them to ensure they addressed participants' issues.
- **August 12 – 13, & 25, 2009** – Planners presented final recommendations and draft final report to the public at meetings in Point MacKenzie and Glacier View.
- **Summer - Fall, 2009 –** Planners provided the final draft report to the JLUS committees, MSB Planning Commission, and the MSB Assembly.

1.5.2 Interviews

In addition to the JLUS public open houses, interviews were conducted in July and August 2008, with interested organizations and stakeholders to solicit pertinent information, to inform and to engage community interest in the project. Interview summaries are included in Appendix A.

Interviews were conducted with military personnel and the following organizations:

- Alaska Department of Fish and Game (ADF&G)
- Alaska Department of Labor and Workforce Development
- Chickaloon Village Tribal Council
- Eklutna Native Village
- Federal Communications Commission
- Federal Aviation Administration (FAA)
- Knik Native Village
- Point MacKenzie Resident
- Point MacKenzie Store Owner

1.5.3 Website

A public website was established to provide information about the planning process, contact information, history of military installations, meeting dates, committee members, interview and meeting summaries, and draft documents for public review. During the course of the study, the website could be accessed at: http://projects.whpacific.com/matsujlus/.

1.6 Issue Identification

At the open houses and during interviews with key stakeholders, several land use and related military and civilian community issues were identified and are briefly described below.

Noise – Noise from low-flying aircraft, both airplanes and helicopters, was a concern to some residents. While there is a formal process in place for submitting noise complaints (described in Section 3.3, *Existing Noise/Land Use Policies*), it is generally not known by the public.

Airspace Conflicts – The Matanuska-Susitna Valley has the highest concentration of airports, public and private, anywhere in the United States. The borough contains ten publically owned airports, but the

majority of the aviation facilities in the borough are private airstrips (as documented in the Regional Aviation System Plan [RASP])[1]. Airspace is becoming crowded, particularly in the Big Lake area (approximately 10 miles from Wasilla), which has an extremely high number of private pilots. Glacier View, located in the eastern part of the borough, also has a high number per capita of private general aviation pilots. Residents there expressed concern that civilian pilots do not know what frequency to use if they need to communicate with military pilots. However, the military has a policy not to respond to non-military communication unless it is an emergency communication. Many Alaska pilots do not have radios, which also hinders communication.

Land Use Compatibility –The Point MacKenzie community is experiencing significant growth, including a new correctional facility, port expansion, a new ferry system, and a railroad spur connecting the port to the statewide rail system. In addition, residential areas are being developed in and around areas potentially affected by noise from military aircraft. *The Alaska Residential Real Estate Sales Disclosure Statement Checklist*[2] includes a high noise area disclosure item; however, existing MSB land use regulations provide few safeguards to minimize development of current or future incompatible land uses near military training operation areas. There is a possibility that this could lead to noise complaints. The area west of the Point MacKenzie community lacks an active community council to involve in determining the level of impact from military training.

Communication – The MSB and the military do not have regularly scheduled meetings to discuss land use, noise, and other compatibility issues.

[1] Matanuska-Susitna Borough Regional Aviation System Plan, DOWL HKM, August 2008.

[2] *http://www.uslegalforms.com/ak/AK-37014.htm*

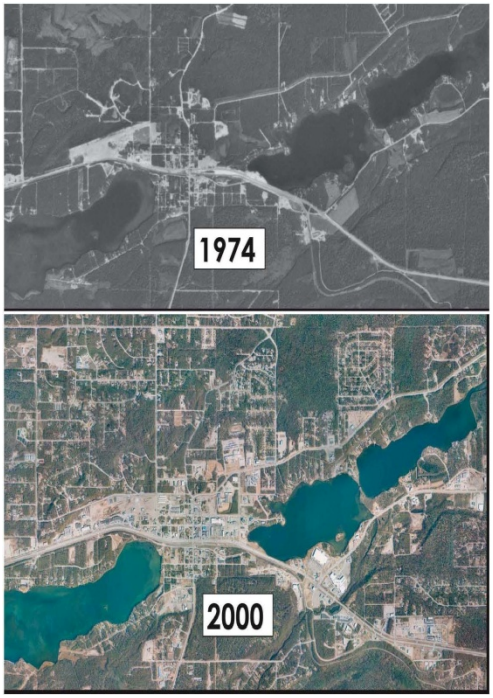
2.0 Background Information

2.1 Chronology of Events

The MSB JLUS represents a coordinated effort between the Army, Air Force, National Guard, and the local jurisdiction to develop sound land use policies that enable the military to continue to successfully operate in the area with a minimum of community impacts. Below is a brief narrative highlighting the chronology of events leading to the development of this JLUS.

Matanuska-Susitna Valley *shown shaded in red north of Anchorage*

- **1916** – The Alaska Railroad established a railroad siding in an area that would later become the City of Palmer. A small population grew at this location and a post office was established there the following year.
- **1935** – Matanuska Colony was established by the Federal Emergency Relief Administration as part of the New Deal.
- **May 10, 1935** – The first of the Minnesota contingent of colonists arrived at Palmer.
- **October 21, 1939 –** The Alaska National Guard was constituted under Governor John S. Troy as the 297th Infantry Battalion.
- **1940** – Construction of Fort Richardson began on the present site of Elmendorf AFB**.**
- **1942** – Governor Ernest Gruening organized the Alaska Territorial Guard (ATG) after the Alaska National Guard was called to active duty during World War Two (WWII).
- **1942-1943 –** The Japanese Navy attacked Dutch Harbor, Alaska then occupied the islands of Kiska and Attu in June of 1942. The US invasion force in 1943 consisted of an amphibious assault



Growth Pattern, City of Wasilla

force that came to Alaska from Southern California, not from Fort Richardson. They captured Attu after three weeks of bloody fighting. The Japanese abandoned Kiska just prior to the invasion of that island

- **1947** – Fort Richardson was designated as headquarters of the United States Army Alaska (USARAL).
- **September 15, 1952 –** The Alaska Air National Guard was established.
- **1963** – 172nd Infantry Brigade (Mechanized) stationed at Fort Richardson.
- **January 1, 1964** – The Matanuska-Susitna Borough was classified as a second-class borough and incorporated under the provisions of the State of Alaska Borough Act (1963), as amended.
- **1972** – 171st Infantry Brigade at Fort Wainwright stood down, and its remaining units were absorbed by the 172nd at Fort Richardson.
- **1974** – Wasilla incorporated as a first class city. Fort Richardson inactivated as USARAL headquarters and made subordinate to U.S. Army Forces Command at Fort McPherson, Georgia.
- **1994 –** Fort Richardson reactivated as USARAK headquarters.
- **2002** – DoD nominated Fort Richardson for a Joint Land Use Study.
- **2003** – DoD nominated Elmendorf AFB for a Joint Land Use Study.
- **October 2003 –** Nine hundred soldiers in the 1-501st parachute infantry regiment deployed to Afghanistan as part of Operation Enduring Freedom.
- **January, 2005 -** The 2005 Base Realignment and Closure, *BRAC 2005* recommendations included realigning Elmendorf Air Force Base and Fort Richardson, AK, by relocating the installation management functions to Elmendorf AFB, AK, thus establishing Joint Base Elmendorf-Richardson, AK with full operational capability by 1 Oct 2010. The *BRAC 2005* also recommended closing the Kulis Air Guard Station (AGS) by 2011 and distributing the C-130, HC-130 and HH-60 aircraft from Kulis AGS, to Elmendorf Air Force Base.
- **July 2005 –** The 4th Brigade (Airborne), 25th Infantry Division was activated at Fort Richardson.

- **August 2005 –** Thirty-eight hundred Fort Richardson and Fort Wainwright soldiers with the 172nd Stryker brigade deployed to Iraq for what became a 16-month tour.
- **2006** – JLUS project listed as "Inactive" in 2006 due to Municipality of Anchorage reluctance to initiate JLUS**.**
- **October 2006 –** The 4th Brigade, 25th Infantry Division deployed to Iraq for a 13-month tour.
- **May 2007** – Alaskan Command (ALCOM) contacted DoD Office of Economic Adjustment with interest in JLUS for MSB.
- **May 2007 –** F-22A Raptors brought to Elmendorf AFB and Elmendorf's F15E eagle strike jets reassigned to Mountain Home AFB in Idaho.
- **June 2008 –** MSB JLUS process was initiated.

2.2 Military Mission and History

Airplane on runway on Elmendorf Field c. 1943

The United States has had a military presence in Alaska since 1867, when Russia ceded control of the region to the United States. During the 19th century, the Army and Navy opened up the Klondike to exploration and established telegraph links throughout the state and to the Lower 48. In addition, they continued to maintain security and operate weather stations in Alaska.

2.2.1 Fort Richardson

Fort Richardson was named after Brig. Gen. Wilds P. Richardson, who led the Polar Bear Expedition (1918-1919) as part of the Allied intervention in the Russian Civil War.

Many political and military leaders advocated building military installations in Alaska several years prior to WWII. In 1939, under Alaska Territorial Governor John W. Troy, the Alaska National Guard was constituted as the 297th Infantry Battalion. In 1940, with war threatening, construction of a new army installation, Fort Richardson, began near Anchorage. This plan originally contained only one airfield, named after Air Force Captain Hugh M. Elmendorf. The location of Elmendorf AFB remains the same today. However, after the Japanese attack on Pearl Harbor, the War Department authorized a large-scale military buildup in Alaska. In 1942, Governor Ernest Gruening organized the Alaska Territorial Guard (ATG) after the Alaska National Guard was

called to active duty during WWII.

On June 6 and 7, 1942, the Japanese attacked Dutch Harbor, Alaska, and occupied Kiska and Attu, two islands on the western end of the chain. The buildup of Japanese troops reached 2,300 until the U.S. Navy cut off Japanese resupply ships. Nearly a year later on May 11, the U.S. Army landed on Attu and conducted the only WWII battle with foreign troops to occur on U.S. soil. On May 29, the Japanese were defeated and evacuated Kiska soon after.

In 1947, Fort Richardson was designated as headquarters of the US Army, Alaska (USARAL). Headquarters USARAL inactivated in 1974, but reactivated in 1994 as HQ US Army Alaska (USARAK).

Today, the mission of the U.S. Army in Alaska is to train and equip forces for rapid deployment in support of combat and other operations worldwide.

United States Army Alaska Crest

The post's largest military tenant is the Alaska National Guard, with facilities at Camp Carroll, Camp Denali, and Bryant Army Airfield.

Historically, the Alaska National Guard has never had large international deployments. Their focus has been on efforts within their home communities. These missions include search and rescue operations, civil disorder preparation, rural MedEvac, natural disaster preparation, support of law enforcement, readiness training missions, and wildlife support. Another mission is to maintain a state of readiness for overseas deployment. In 2003, they were called upon to support the U.S. Army in Iraq. The Guardsmen worked in Baghdad to help patrol and staff checkpoints. They also worked as military advisors, helping with the Mongolian Army. Guardsmen were deployed to Afghanistan to provide training to the Afghan National Army, as well.

Today's Guard is still supporting the U.S. Military overseas in Iraq and despite being deployed overseas, the Guard still maintains their missions in Alaska.

Captain Hugh M. Elmendorf (1895-1933) Pioneer of high-altitude flying techniques

2.2.2 Elmendorf Air Force Base

The histories of Elmendorf AFB and Fort Richardson are inextricably linked. Elmendorf AFB (previously called Elmendorf Field, and Elmendorf Army Air Base) was established in 1940 and received the

deed for the land it is located on from Fort Richardson in 1951.

In February of 1941, the 18th Pursuit Squadron was established, followed by the 23rd Air Base Group for base support. In 1942, as more Military units were assigned to the base, the Eleventh Air Force was formed. Elmendorf was the rear headquarters during the war. The 11 AF moved command to several locations in the Aleutians. Missions against Attu and Kiska flew out of Amchitka, Umnak and Adak, Missions against the Kurile Islands flew out of Shemya.

With the onset of the Cold War, military airfields in Alaska grew in force. Following WWII, Elmendorf was the headquarters of the Alaskan Air Command (AAC). The facility expanded greatly during the first 10 years of the Cold War. The base added many more aircraft and squadrons. The runway was enlarged in 1957 and concrete aprons were installed. After these improvements, the AAC experienced a considerable slow down as the military focused on missile threats from the Soviet Union.

The next period of major restructuring came after Clark AFB in the Philippines was forced to relocate following the eruption of Mount Pinatubo. The Clark AFB aircraft and its medical center moved to Elmendorf. Clark's Cope Thunder air exercises were headquartered at Eielson AFB (near Fairbanks), but almost half as many exercises take place out of Elmendorf AFB. Cope Thunder was renamed Red Flag-Alaska in 2006.

> "Alaska is the most central place in the world for aircraft, and that is true of Europe, Asia or North America. I believe in the future, he who holds Alaska will hold the world, and I think it is the most strategic place in the world."
>
> *- Brig. Gen. Billy Mitchell, appearing before House Committee on Military Affairs in early 1935*

The USAF's 11th Air Force (11 AF) is headquartered at Elmendorf AFB. 11 AF is a subordinate of the Pacific Air Forces (PACAF) and is also the air component of the ALCOM. The mission of 11 AF is to plan, conduct, control, and coordinate air operations in accordance with the tasks assigned by the commander, PACAF, and to be a force provider for ALCOM, the Alaskan North American Aerospace Defense Command Region (ANR), and other unified commanders. This mission is accomplished largely through the 3rd Wing (3 WG) at Elmendorf AFB, the 354th Fighter Wing at Eielson AFB, the 611th Air and Space Operations Center, and the 611th Air Support Group. Together, these organizations provide a network of critical air

surveillance and command, control, and communications functions necessary to perform tactical warning and attack assessment in defense of Alaska.[3]

Elmendorf AFB provides the capabilities needed to support United States Pacific Command's (PACOM) theater staging and communication requirements. The 3 WG is the largest unit and the host organization for Elmendorf AFB. 3 WG is capable of projecting airpower worldwide and provides the following capabilities: offensive and defensive counter air, air interdiction, close air support and forward air control, suppression of enemy defenses, electronic combat, and airlift. This broad array of missions, coupled with a large and diverse fleet of aircraft and related weapons systems, requires large and varied airspace approved for both subsonic and supersonic operations. 3 WG performs its missions through a variety of subordinate units.

The 962nd Airborne Air Control Squadron (962 AACS) operates E-3A aircraft and provides the Commander, PACOM, with a long-range airborne surveillance, detection, identification, and command and control platform for both local and deployed wing operations. 962 AACS also supports North American Aerospace Defense Command's (NORAD) commitment to defend its Alaskan Region.

The 90th Fighter Squadron (90 FS) and the 525th Fighter Squadron (525 FS) both fly the F-22A Raptor, the most modern air superiority fighter. These two units train in the fighter missions of strategic attack, interdiction, offensive counter air (air-to-surface), suppression of enemy air defenses, and offensive and defensive counter air (air-to-air).

The 19th Fighter Squadron has the F-15, an all-weather tactical fighter designed to gain and maintain air superiority in aerial combat. They are inactivating at Elmendorf, but overall are expected to remain in service until 2025.

F-22 Raptor at Elmendorf AFB

The 517th Airlift Squadron (517 AS) supports worldwide airlift, airdrop, and air land requirements with its C-17 aircraft, and performs critical operational support airlift missions to resupply remote Alaskan long-range radar sites with its C-12Fs.[4]

[3] Alaska Military Operations Areas, Environmental Impact Statement, Department of the Air Force, 11th Air Force, August 1995.

F-80 shooting star (later became a T-33)

The Elmendorf AFB staff also participates in the Alaska Civilian Military Aviation Council (ACMAC). This group meets twice a year to discuss issues of concern to both the military and civilian pilots. Civilian industry representatives on the committee include the Aircraft Owners and Pilots Association, the Alaska Airmen's Association, the Seaplane Pilots Association, and others.

In 1952, Elmendorf AFB housed the Alaska Air National Guard. In the spring of 1955, the Alaska Air National Guard moved out of Elmendorf AFB and onto a new base near Anchorage International Airport. The base was dedicated in honor of 1st Lieutenant Albert Kulis, who had crashed in Goose Bay the previous fall after a training exercise.

The Alaska Air National Guard or the 176th Wing (176 WG), as it is now called, has a history of assisting Alaskan communities in times of natural disaster and crisis, including tactical rescue, wildlife support, and delivery of emergency supplies and personnel. 176 WG participates in a number of humanitarian missions including Operation Santa Claus, which annually airlifts toys to rural Alaskan villages.

As part of the DoD Base Realignment and Closure (BRAC) Program, the Alaska Air National Guard will soon close its operations at Kulis Air National Guard Base on Ted Stevens Anchorage International Airport and move back to Elmendorf AFB.

Throughout their long history, the Alaska Air National Guard has been involved in major exercises around the world including: New Horizons, Honduras; Roving Sands, Texas; Arctic Care, Alaska; Yama Sakura, Japan; Northern Edge, Alaska; Foal Eagle, Korea; and the Combat Training Center, Hohenfels, Germany.

Operation Santa Claus
The 176 WG delivering toys, books, and clothes to a rural Alaskan village

[4] AICUZ Study Update, Elmendorf Air Force Base, Alaska, 2006, pg 2-1.

Air National Guard refueling over Matanuska Glacier

The Alaska Air National Guard has received national awards and recognition for their services. After the 1964 Anchorage earthquake, the Alaska Air Guard received the Air Force's Outstanding Unit Award for their emergency response and rescue efforts. Three years later, they received it again for their response during the 1967 Fairbanks flooding. In 1969, these recognitions led to the growth and expansion of the program. They doubled in size, keeping focus on their tactical airlift missions. The group expanded its mission to include the national "Prime BEEF" (Base Emergency Engineering Force) program. The Alaska Air National Guard teams participate in large construction projects all over the world.[5]

2.3 Current and Future Military Operations

Current operations at both installations have a focus on tasking, composition, capabilities, numbers, weapon systems, training programs, and airspace requirements that support complex world-wide operations. Details about current and future military operations at each installation are described in the following sections.

2.3.1 Fort Richardson

Currently, Fort Richardson is the headquarters for the USARAK. Half of the USARAK forces are being housed away from Fort Richardson at Fort Wainwright; however, support for these forces still occurs at Fort Richardson.

Headquartered at Fort Richardson are the Special Troops battalion, a Theater Army Aviation battalion and detachments of the personnel and finance battalions. The U.S. Army Garrison, a component of the new Joint Base Elmendorf Richardson, is currently headquartered at Fort Richardson and includes a Headquarters company at each installation; the Law Enforcement Command and the Noncommissioned Officers' Academy. This unit will leave Joint Base Elmendorf Richardson in 2010. During the Army's expansion following the September 11, 2001, attacks, Task Force 1-501 was expanded into an airborne brigade. Flagged as 4th Brigade (Airborne), 25th Infantry Division, this is the major combat unit operating out of Fort Richardson.

[5] June 2, 2009, review from USAF Colonel Christopher A. Pike.

In addition to its combat units, Fort Richardson's operations currently include a full range of family and soldier support facilities. These include housing, a small shop, child care and recreation facilities, storage space, office and small, modern, dental and medical facilities. Major medical services are provided at Elmendorf AFB. Mail and commissary services are provided by the Joint Military Mall located between Fort Richardson and Elmendorf AFB.

Other non-military activities located on Fort Richardson include the Veterans Administration National Cemetery and a State of Alaska ADF&G fish hatchery.

Fort Richardson also provides support for its military tenants including a heliport, a drop zone (DZ) for airborne operations, a firing range, mountain/glacier warfare rescue training, and other training areas.

The major military tenant is the Alaska Army National Guard.

The Alaska Army National Guard performs helicopter training missions at Low Level Training Area 4 located in the western protion of the borough (see Figure 1). This training area is situated on both private and public land that the military has limited permission to use for training. The purpose of the training is primarily to practice landings in different conditions and is done on an almost daily basis, including winter training exercises. The location of Low Level Training Area 4 is particularly valuable because of its proximity to Fort Richardson and relatively short flying time.

Future uses of Fort Richardson will be largely influenced by the Army's "Grow the Army" plan. This national plan aims to increase the size of the U.S. Army across the country. This means that Alaska's soldier and government civilian population will increase to approximately 15,000 before the fiscal year 2013. The Army is increasing its troops based on estimated security needs, particularly in Alaska because Alaska is considered strategically important. These troops will be evenly split between Fort Wainwright and Fort Richardson.[6]

Fort Richardson is expected to receive approximately 1,500 additional troops by 2013[7] and it is estimated that Fort Richardson will provide support services for 2,400 military family members.[8] This figure

[6] Halpin, James. "Nationwide Army expansion will be felt in Alaska." Anchorage Daily News, December 2007. http://www.adn.com/alaska/story/242641.html.

[7] USARAK Current and Future Ledger V 8, September 23, 2008.

includes 579 soldiers that are a part of the Maneuver Enhancement Brigade, which is being relocated to Fort Richardson in 2010. Expansion of facilities and services will be required to meet the Army growth demands. Several projects, including housing, have been funded and are expected to be constructed in the next few years.[9]

According to the U.S. Army's *Alaska Grow the Army Environmental Assessment*, minor or moderate impacts on environmental resources will occur from the "Grow the Army" plan. However, mitigation measures have been put in place. There is expected to be no impact on land use and only minor noise impacts (as summarized in Table 2.1).

[8] Department of the Army. U.S. Army Alaska Grow the Army Environmental Assessment and Finding of No Significant Impact. September 2008. Pages 2-3.

[9] USARAK Current and Future Ledger V 8, September 23, 2008.

Table 2.1 Environmental Impact of the "Grow the Army" plan

Resource Categories	Impact
Air Quality	Minor
Cultural Resources	Minor
Soil Resources	Minor to Moderate
Biological Resources	Minor to Moderate
Vegetation	Minor to Moderate
Invasive Species	Minor
Wetlands	Moderate
Wildland Fire Management	Minor to Moderate
Public Access & Recreation, Human Health and Safety	Moderate
Subsistence	Minor
Socioeconomics	Minor to Moderate
Water Resources	Moderate
Facilities	Minor to Moderate
Traffic & Transportation	Moderate
Land Use	No Impact
Hazardous Materials (Haz Mat) / Hazardous Waste (Haz Waste)	Minor
Noise	Minor
Airspace	Minor
Energy	Minor
EJ and POC	Minor

Source: *U.S. Army Alaska Grow the Army Environmental Assessment and Finding of No Significant Impact.* September 2008. Page 35.

In addition to the changes from the "Grow the Army" plan, future operations at Fort Richardson will be affected by the DoD BRAC Program. Kulis Air National Guard facilities at Ted Stevens Anchorage International Airport are being relocated, and part of its operations will occur at Fort Richardson. However, this will only affect Fort Richardson's cantonment space; Fort Richardson will not see any additional air traffic from Elmendorf AFB.

2.3.2 Elmendorf AFB

Elmendorf AFB is part of the PACAF and is currently home to the Alaskan Command, 11 AF, Alaskan North American Air Defense region, and the 3WG. The 3WG is the largest unit in Elmendorf AFB and the principal unit in the 11 AF. Multiple squadrons operate within these groups. Each group has a series of individual missions that guide its operations at Elmendorf AFB.

To understand how the base is used, all flying activities need to be described according to their relationship between aircraft operations and land use. Also landing and taking off from Elmendorf AFB are a number of transient aircraft from other military installations. These include a mixture of 12 light aircraft from the Elmendorf Aero Club (military pilots with private aircraft).

The aircraft use these basic flight patterns:

- Straight out departure
- Straight in approach
- Overhead landing pattern
- Instrument flight rules (IFR) or radar closed pattern
- Visual flight rules (VFR) or closed pattern
- Re-entry VFR pattern
- Left turn departure
- Right turn approach

Elmendorf AFB flight patterns result from several considerations, including:

- Takeoff and landing patterns routed to avoid heavily populated areas as much as possible.
- Air Force criteria governing the speed, rate of climb, and turning radius for each type of aircraft.
- Proximity to hills and mountains that preclude operations in certain areas.
- Efforts to control and schedule missions to keep noise levels low.
- Coordination with the FAA to minimize conflict with civilian aircraft operations.[10]

In 2006, an Air Force training exercise called Red Flag Alaska replaced Cope Thunder, the largest aerial exercise in the PACOM area, held three to four times a year. Red Flag Alaska broadens the participants to encompass more Air Force Units including the 64th Aggressor Squadron from Nellis AFB in Nevada. The Alaska exercise is unique among most U.S. training exercises in that it offers about 67,000 square miles of air space in which to train, the largest training area of its kind in the nation. Pilots and other military personnel from Elmendorf AFB participate in Red Flag Alaska to a limited degree.

Like the Alaska Army National Guard, the Alaska Air National Guard performs training missions in Low Level Training Area 4 (see Figure 1), although the type of training differs. The Air National Guard

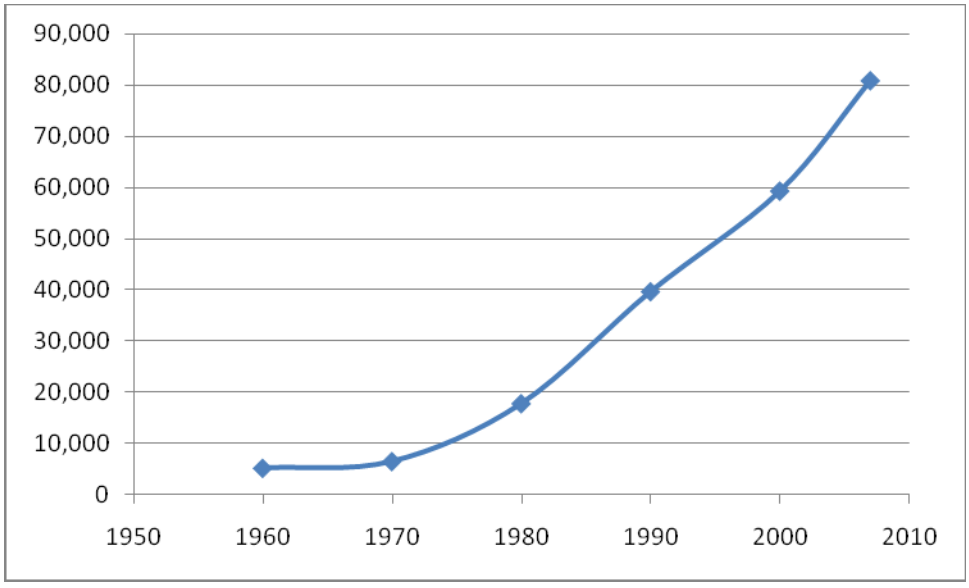
[10] AICUZ Study Update, Elmendorf Air Force Base, Alaska, 2006, pg 3-1,3-2.

primarily trains in the area by dropping and picking up material and military personnel. The closure of Kulis Air National Guard Base and relocation to Elmendorf AFB is not predicted to affect the training mission needs.

2.4 Regional Demographics and Growth Trends

In the 1960s, the U.S. Census reported just over 5,000 people living in the area that is now the MSB. The population exploded in the 1980s, reaching 39,683 in 1990 (see Figure 2). The pace of growth has barely slowed in the ensuing years; in 2000, 59,322 people were reported to live in the borough, and the 2007 estimate was 82,669. As Alaska's population is growing at about the same pace as the nation – 1.1% annually – the MSB has accounted for most of that growth, experiencing a 5% annual growth rate in the first half of this decade.

Figure 2 Population growth in the MSB



Source: U.S. Census 1960-2000, State of Alaska Labor Alaska Department of Labor and Workforce Development.

Civilian development adjacent to military installations has contributed to the closure of some installations and the realignment of others in the Lower 48 states. While land use conflicts affecting Fort Richardson and Elmendorf AFB in the MSB are generally limited at this time, the rate of growth in the borough and several developments in the Point MacKenzie Community have prompted borough officials to take a proactive stance on land use and the relationship between the borough and the military installations.

2.5 Economic Impacts of the Installations

Both Fort Richardson and Elmendorf AFB contribute significantly to the local economy. Much of the economic impact occurs within the Anchorage area, but the installations make significant contributions to the MSB economy as well.

Fort Richardson. Fort Richardson has 3,300 soldiers, with more than 3,200 family members, and employs about 1,200 Army and DoD civilian employees. Of the soldiers, at least 134 reside within the MSB, and 290 civilian MSB residents work on Fort Richardson. The military payroll in fiscal year (FY) 2008 was estimated to be $7.9 million, and the civilian payroll was $20 million.

In addition to payroll, from FY 2003 to 2007, Fort Richardson awarded $29.7 million in military contracts to MSB businesses. Including other expenditures of $111 million, Fort Richardson put more than $245 million into the local economy in this time period.

Elmendorf AFB. More than 18,000 people are associated with Elmendorf AFB. Of these, 2,733 are active duty military living on-base with 4,412 dependents. The base has an additional 4,048 active-duty military living off base with 5,606 dependents. There are also 1,009 appropriated-fund civilian employees, and 860 are non-appropriated fund contract and private business civilian employees.

The Elmendorf AFB total gross payroll for FY 2004 was $456.3 million. Another $127.4 million was spent at Elmendorf AFB on construction, services, materials, equipment, and supplies. Economic activity generated by the base's presence is estimated to have created an additional 3,170 secondary jobs with an associated annual payroll of $130 million. Thus, the total annual impact of Elmendorf AFB on the region's economy was approximately $713.8 million.

Currently, 445 Elmendorf AFB military personnel reside in the MSB and have an annual payroll of $28.8 million. There are 176 civilian MSB residents currently working on the base who make a total of $11.3 million per year.

From FY 2003 to 2007, Elmendorf AFB awarded $128.4 million in military contracts to MSB businesses.[11]

Additional Economic Benefits. The multiplier effects of the military's impact on the economy can more than double its direct impact. Multiplier effects are both indirect and induced effects. Indirect effects

[11] AICUZ Study Update, Elmendorf Air Force Base, Alaska, 2006, pg 2-2, 2-3.

include spending by businesses that serve the military. Induced effects are further spending generated by the increased labor income in the region. The following table shows the total economic impact of the military in the MSB:[12]

Table 2.2 Military Economic Impact in the MSB

Category	Estimated Direct and Multiplier Effects
Business Sales ($)	
Military Spending on Contracts	$30,400,000
Employee Spending	$44,100,000
Total	$74,500,000
Jobs (# of part- and full-time jobs)	
Military Spending on Contracts	315
Employee Spending	260
Total	575
Labor Income ($)	
Military Spending on Contracts	$13,700,000
Employee Spending	$8,600,000
Total	$22,300,000

[12] *An Analysis of the Military's Economic Influence on the Matanuska-Susitna Borough*, Northern Economics, February 2009.

3.0 Technical Information

3.1 Compatible Use Zones

An HH-60 Pave Hawk approaches a snow-covered Mount Susitna northwest of Anchorage.

http://www.176wg.ang.af.mil/photos/.

To determine what the compatible uses are, it is important to understand how military activities, particularly air activities, affect the surrounding area. The DoD developed the Air Installations Compatible Use Zone (AICUZ) program for military airfields. Using this program, DoD works to protect aircraft operational capabilities at its installations. It also assists local government officials in protecting and promoting the public health, safety, and quality of life. The goal is to promote compatible land use development around military airfields by providing information on aircraft noise exposure and accident potential.

The military has studied compatible use zones in the MSB, primarily through the AICUZ study. Zones are based on noise factors, accident potential zones, and training activities associated with military activity. The MSB has limited regulations regarding noise and does not have any land use regulations relating to aviation noise or noise from firearms. The following sections describe the compatible use zones in more detail.

3.1.1 Military Aircraft Noise Analysis

The most detailed analysis of aircraft noise on the installations is the AICUZ study completed for Elmendorf AFB. It includes a noise zone map and study. In this document, the DoD sets policy on achieving compatible use of public and private lands in the vicinity of military airfields. It defines the required restrictions on the uses and heights of natural and man-made objects in the vicinity of air installations to provide for safety of flight and to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents. It also recommends restrictions on land use to ensure its compatibility with the characteristics of air installations operations, including noise. Noise zones at Elmendorf AFB are described below. Understanding this will provide greater insight into the compatibility of land uses.

Since its inception in the early 1940s, Elmendorf AFB has supported a variety of aircraft and operations. These range from WW II bombers and cargo aircraft to the current modern-day fighter and cargo aircrafts.

The Air Force conducted the Elmendorf AFB AICUZ study update in 2006. Land around and near Elmendorf AFB can be affected by the noise from aircraft and missions. Therefore, as communities prepare and/or amend their local land use plans, the Air Force must be ready to provide additional input. The Base Civil Engineer, the Civil Engineer Squadron, as well as other Air Force representatives, participate in the continuing discussion of zoning and other land use matters as they may affect, or may be affected by, Elmendorf AFB.[13]

The AICUZ reports describe three basic types of constraints that affect, or result from, flight operations. These constraints serve to limit development of land use and flight operations as follows:

- **Height restrictions** - The first constraint involves areas that the FAA and DoD have identified for height restrictions, as defined by the Federal Aviation Regulation (FAR) under subpart C.
- **Noise Zones** - The second constraint involves noise zones as developed using Air Force methodology.
- **Military Aircraft Accident Analysis** - The third constraint involves Clear Zones (CZs) and Accident Potential Zones (APZs).

Height Restrictions

Height restrictions at Elmendorf AFB do not affect land uses in the MSB because of the distance from the airfields.

Noise Zones

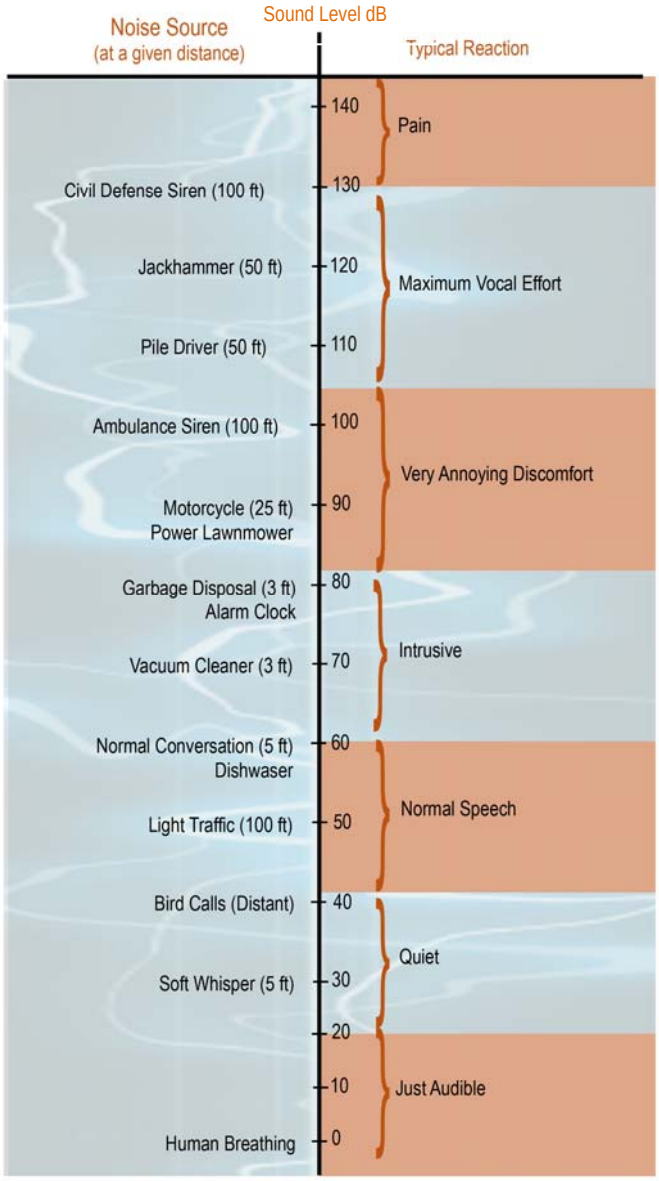
The AICUZ expresses noise around the military airfield using a Day-Night Average Sound Level (DNL). The DNL descriptor indicates average decibels (dB) as measured over a 24-hour period. When the military measures noise in decibels, it assigns a weighting based on the noise frequency and source. A-weighting, expressed as dBA, depicts higher frequency noise caused by small arms firing, aircraft use, and vehicle operations. C-weighting shows the low frequency noise and vibration associated with the firing of larger weapons systems (dBC). Although the impulsive noise produced by large arms weaponry can cause vibration and the shaking of nearby buildings, the noise is air-borne. Sound is not transmitted through the ground as a result of mortar or artillery impact, but instead travels through the air. Noise in

[13] AICUZ Study Update, Elmendorf Air Force Base, Alaska, 2006, pg 5-5.

excess of 55 dB can become intrusive, and continued exposure to noise above 85 dB can, over time, cause hearing loss.

Figure 3 shows common noise sources, sound levels, and typical reactions to common noise-generating activities.

Figure 3 Common Sounds and Noise Levels, A-Weighted



The Army depicts noise based on a computer simulation that processes data, such as the type of weapons fired from each range or firing point including demolitions, the number and type of rounds fired from each weapon, the location of targets for each range or firing point, and the amount of propellant used to

reach the target. The DNL is the standard, accepted methodology for modeling the noise impacts of military activity on surrounding lands. The modeling takes into account variables such as:

- Maximum loudness
- How long the sound lasts
- The number of annoying sounds

The measure further "penalizes" or places a higher decibel value on noise that occurs at night because it is more disruptive to the surrounding population. In addition to operational characteristics, such as the type of weaponry used, a variety of meteorological factors (including wind, air temperature, humidity, and cloud cover) can affect the path and intensity of noise as it travels from its source. For example:

- Wind moves the air and thus carries noise farther.
- Humid air has more density, thus carrying noise farther from the source.
- Low, dense, cloud cover can reflect more noise back to the ground, thus increasing sound intensity.

Atmospheric temperature gradients also affect aircraft noise propagation. During periods of normal temperature gradients, where air temperature steadily decreases with increasing altitude, aircraft noise is, for the most part, deflected upward, thereby producing areas of little or no noise on the ground at certain distances from the aircraft. During periods of atmospheric temperature inversion, which often occurs in the winter in the Fairbanks area, the reverse situation is true and aircraft noise tends to be deflected downward, thus increasing ground noise levels.[14] This factor is not part of a typical noise analysis so actual noise may be higher during inversion periods than shown in the noise zones.

Experts at the Environmental Noise Program, U.S. Army Center for Health Promotion and Preventive Medicine, created the noise zones described below. The zones and corresponding land use guidance as identified are as follows:

Noise Zone 1 - Noise Zone 1 has an exposure of less than 65 DNL. In general, noise levels of less than 65 DNL are thought to be low enough to be compatible with sensitive and residential uses.

[14] Gladwin, D.N. 1978. A*E*I*S: an airport environmental information system for Virginia. M.S. Thesis, Virginia Polytechnic Institute and State University, Blacksburg.

Noise Zone 2 - Noise Zone 2 exposes people to noise between 65 and 75 DNL. Some land use controls are therefore appropriate for this area. Noise exposure within this area is deemed to be significant and limiting land use to non-sensitive activities such as industry, manufacturing, transportation, and agriculture is recommended. Examples of sensitive land uses include housing, schools, medical facilities, and places of worship. If the community chooses to allow these uses within the zone, it is recommended that the design and construction of the buildings incorporate noise level reduction (NLR) features to minimize the annoyance experienced by residents.

Noise Zone 3 – Noise Zone 3, with noise in excess of 75 DNL, is the most severely affected area around the airfield and can be subject to the most restrictive land use controls. Noise in this zone could be severe enough to cause conflicts with almost all activities. Sensitive land uses, such as housing, schools, medical facilities, and places of worship, should not be allowed in this area.

In addition to these zones, the AICUZ may identify areas of concern where noise levels do not exceed 65 DNL, but operational characteristics, such as repetitive flying patterns, may be objectionable. Noise exposure appears on AICUZ maps as contours that spread outward from the runways.

To identify the areas affected by noise levels around the base, the Air Force used a NOISEMAP program to calculate noise levels generating noise contours. Baseline noise levels were modeled based on aircraft types, runway use patterns, engine power settings, altitude profiles, flight track locations, airspeed, and other factors. Another program is then used to graphically plot these contours between different dB increments.

Noise levels exceeding DNL 65 mostly occur over bodies of water or lands on Elmendorf AFB or Fort Richardson. Generally, aircraft at Elmendorf AFB operate according to established flight paths and overfly the same areas surrounding the base. Elmendorf AFB has a quiet-hours program that prohibits fighter aircraft training operations between 10:00 p.m. and 7:00 a.m. every day of the week.

In addition to aircraft noise, other noise factors include noise exposure from airfield operations that typically occur beneath main approach and departure corridors. Additional noise impacts are created along both runways and in areas immediately adjacent to parking ramps and aircraft staging areas. Noise due to construction and maintenance equipment, as well as general vehicle traffic, is a common, ongoing occurrence in the base environment. Military construction projects are currently in progress at Elmendorf AFB and at Fort Richardson. Trucks, as well as heavy equipment, are usually at the installations on a daily basis to support these facility and infrastructure upgrades.

The total geographic area exposed to 65 DNL or more would be projected to decrease from 12,415 acres under current conditions to 11,242 acres under the scheduled base development plans, a 9.5 percent reduction. Figure 4 illustrates the Elmendorf AFB noise zones.[15]

The military examined current noise levels and anticipated noise levels when Elmendorf AFB and Fort Richardson reach their full size. Table 3.1 compares the total area, in acres, exposed to each noise contour. Data reflect and compare current and projected noise exposure. Figure 4 shows the noise contours.

Table 3.1 Elmendorf AFB and Fort Richardson Current and Projected Areas Exposed To Noise Levels at Full Squadron Size

GEOGRAPHIC AREA (IN ACRES) EXPOSED TO INDICATED NOISE LEVELS (IN DNL)							
		Noise Zone 2		Noise 3			
Location	Condition	65-70	70-75	75-80	80-85	>85	TOTAL
Elmendorf AFB	Current	3,345.5	1,711.6	1,208.9	613.4	663.8	7,543.2
	Scheduled	4,161.3	2,072.1	1,205.6	516.8	563.4	8,519.2
	Change	+815.8	+360.5	-3.2	-96.7	-100.4	+976.0
Fort Richardson	Current	3,125.9	600.6	0	0	0	3,726.5
	Scheduled	1,151.6	136.7	0	0	0	1,288.4
	Change	-1,974.3	-463.9	0	0	0	-2,438.1
Over Water	Current	911.2	181.3	20	0	0	1,112.5
	Scheduled	1,173.5	188.6	7.7	0	0	1,369.8
	Change	+262.3	+7.3	-12.3	0	0	+257.2
Port of Anchorage	Current	911.2	181.3	20	0	0	1,112.5
	Scheduled	1,173.5	188.6	7.7	0	0	1,369.8
	Change	+262.3	+7.3	-12.3	0	0	+257.2
Port MacKenzie Area	Current	0	0	0	0	0	0
	Scheduled	23.5	0	0	0	0	23.5
	Change	+23.5	0	0	0	0	+23.5
Summary	Current	7406.8	2,500.0	1,231.4	613.4	663.8	12,415.4
	Scheduled	6,659.3	2,408.5	1,213.8	516.8	563.4	11,241.8
	Change	-867.5	-91.5	-17.6	-96.7	-100.4	-1,173.7

Note: Tables may not add due to computer rounding.

[15] AICUZ Study Update, Elmendorf Air Force Base, Alaska, 2006, pg 4-5 through 4-10.

Figure 4 Elmendorf AFB Noise Zones

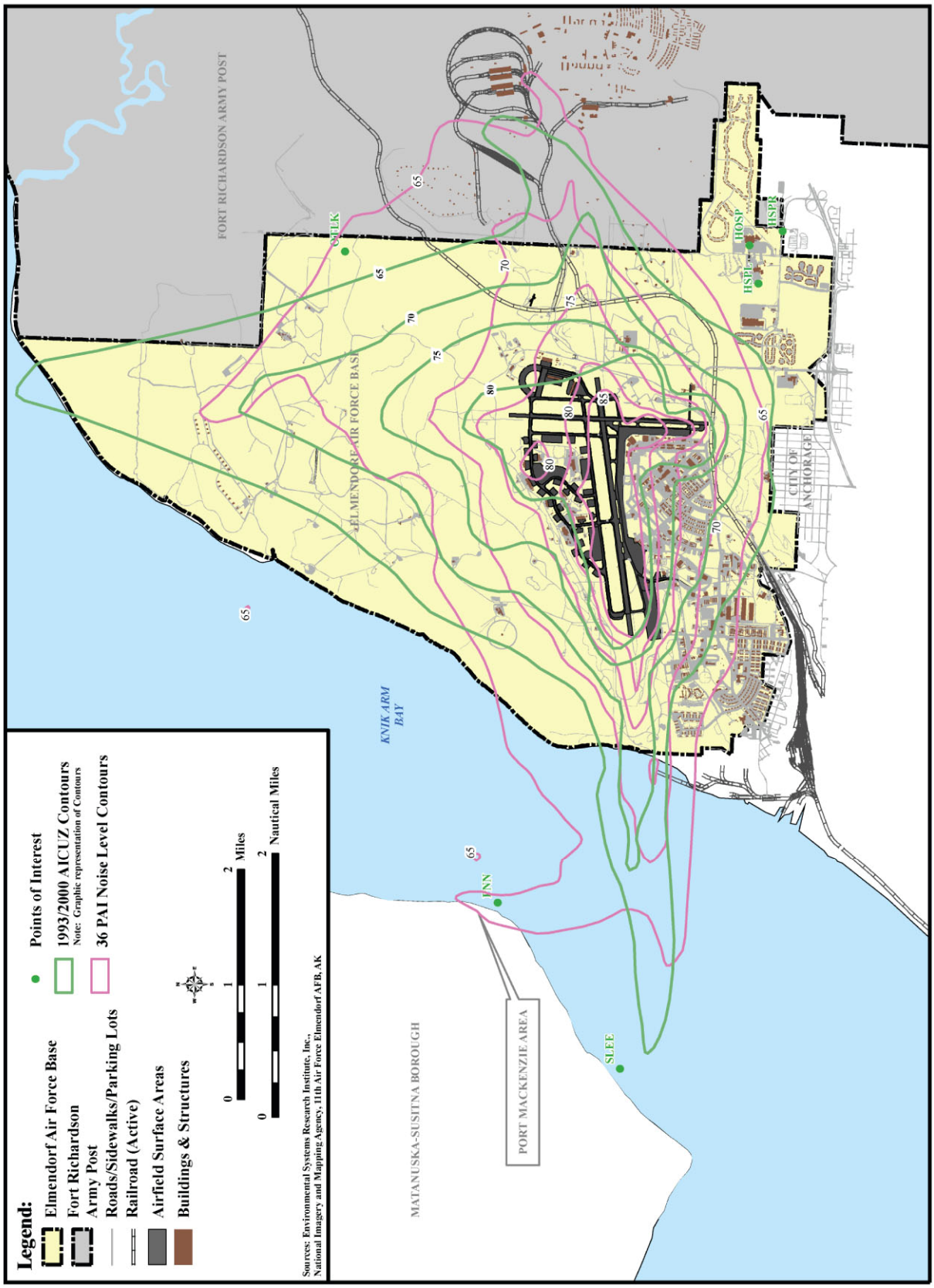


Table 3.1 shows that the Point MacKenzie area currently has no exposure to the 65 DNL, but with the scheduled base development, 23.5 acres would be exposed. (Note: Modeled noise contours are currently being reevaluated, with revised noise contours anticipated in September 2009. According to Air Force personnel, the contours are not anticipated to change substantially)

In addition to the AICUZ, which concerns noise generated from military activity at Elmendorf AFB, the Alaska Army National Guard completed an Operational Noise Management Plan (ONMP). It was completed in 2005 and examined Army National Guard operations in the entire state, including noise from helicopter and fixed-wing activity aircraft at Bryant Airfield and in LLTA4. The conclusion from the ONMP was that the numbers of annual operations were too low to generate a Noise Zone 2 or 3 contour.[16]

To date, there have been no noise complaints (including noise complaints due to sonic booms) as a result of the F-22 operations.

Military Aircraft Accident Analysis

Communities near airports are exposed to the possibility of aircraft accidents, even with well-maintained aircraft and highly trained personnel. The effect of aircraft presence primarily is from Elmendorf AFB. The air traffic associated with Fort Richardson is limited and no formal accident zoning has been done. Despite stringent maintenance requirements and extensive training, the potential for aircraft accidents exists at Elmendorf AFB and the surrounding areas.

Accident Potential Zones. DoD provides Accident Potential Zones[17] (APZs) around its airfields as a planning tool to local land use agencies and the DoD. APZs identify areas where an aircraft accident is more likely to occur. The determined accident potential is based on historical accident data. Areas at risk for accidents are classified in three zones:

Clear Zone (CZ). The Clear Zone is the area of highest aircraft accident potential and is located at the immediate ends of the runway. By definition, a CZ should have no buildings, structures, or other surface use that could impair takeoff and landing of aircraft. The only DoD recommended land use is agriculture, provided that a crop does not attract birds.

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[16] *Alaska Army National Guard Operational Noise Management Plan*, July 2005, p. 4-3.

[17] *Airfield and Heliport Planning and Design*, Air Force Manual 32-1123 (I), Army Technical Manual TM 5-803-7.

Accident Potential Zone I (APZ I). APZ I is less critical than the CZ but still possesses significant potential for accidents. A variety of industrial, manufacturing, transportation, open space, and agricultural uses can exist safely within this area just beyond the CZ. However, uses that concentrate people in small areas, such as higher density housing, pose a conflict with the safety risks of this zone.

Accident Potential Zone II (APZ II). APZ II is the least critical of the three air safety zones, but still carries a moderate potential for an accident. Compatible land uses include those of APZ I, as well as low-density single-family residential, and lower intensity commercial activities. High-density functions such as multi-story buildings and places of assembly (e.g., theaters, schools, churches, and restaurants), however, raise compatibility issues.

APZs follow arrival, departure, and flight track patterns. The shape of the APZ reflects the takeoff and landing patterns of the aircraft. The dimensions of the APZ vary to accommodate the operational characteristics of the aircraft flown at the installation. The CZ and APZ dimensions for Elmendorf AFB are listed in Table 3.2.

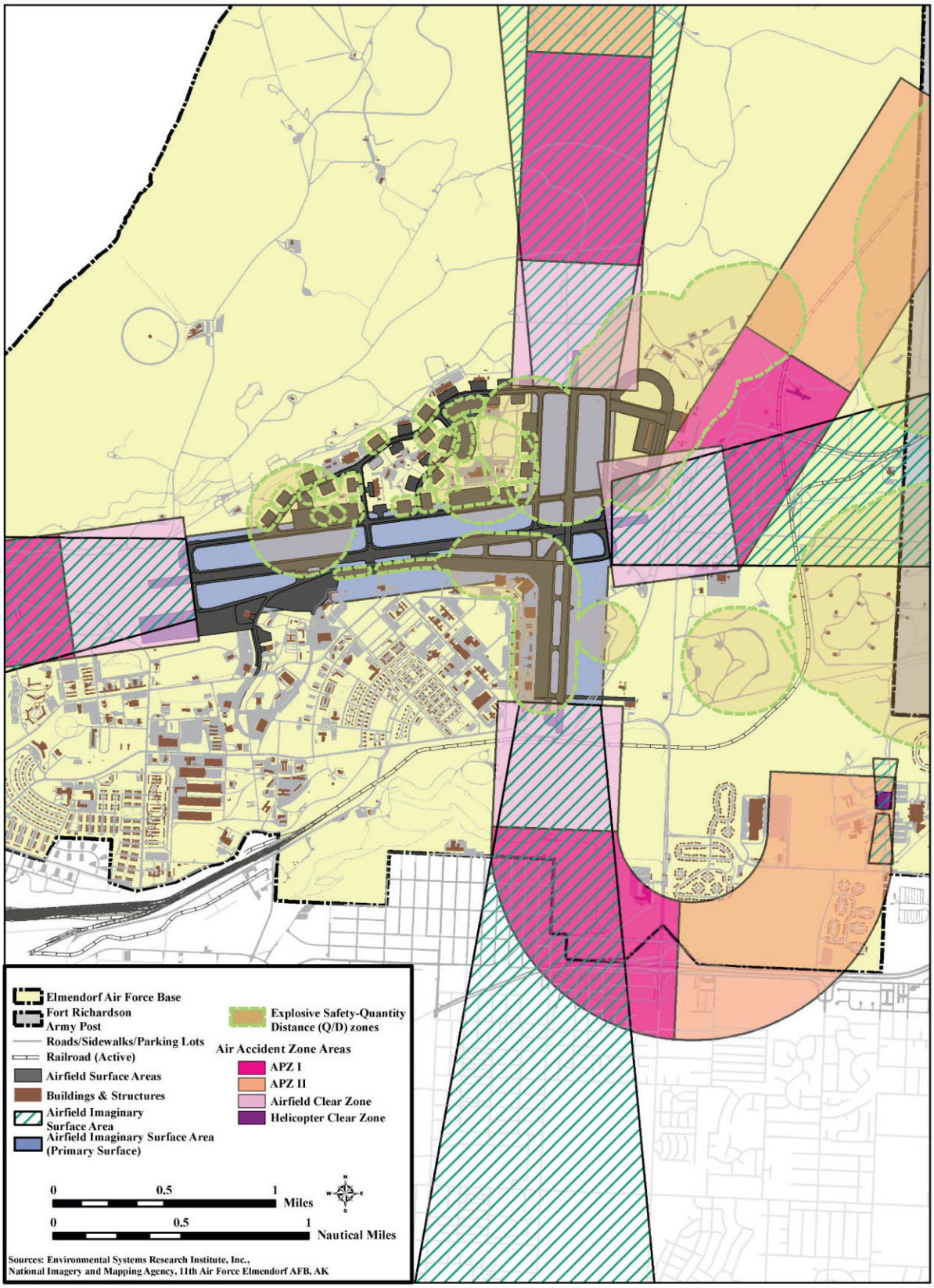
Table 3.2 CZ and APZ Dimensions for Elmendorf AFB

Military Facility	CZ	APZ I	APZ II
Elmendorf AFB (Class B Air Force)	3,000 feet wide by 3,000 feet long	3,000 feet wide by 5,000 feet long	3,000 feet wide by 7,000 feet long

Source: *AICUZ Study Update*, Elmendorf AFB, Alaska, 2006, pg 4-5 through 4-10.

DoD standards recommend against the presence of any structures in the Clear Zone, and residential structures in APZ I. Military guidance suggests low-density residential uses of 1 to 2 dwelling units per acre in APZ II. As with noise zones, a variety of other commercial, industrial, and service uses can exist safely within APZs. Figure 5 shows Accidental Potential Zones for Elmendorf AFB.

Figure 5 Elmendorf AFB Accident Potential Zones



MSB Noise Regulations

The MSB code does not address noise caused by aircraft or firearms. It does address amplified sound and vibrations or noise from powered model vehicles[18]. The regulations include limitations on amplified sound during certain times of the day. On weeknights between 10:00 pm and 7:00 am, sound levels cannot exceed 50 dBA. All other times, amplified sound levels cannot exceed 60 dBA. This excludes emergency situations.

3.2 Analysis of Existing Land Uses

The following analysis assesses the compatibility of existing civilian land uses around Fort Richardson and Elmendorf AFB. When compatible, land uses can exist next to each other without causing interference or exposing people to risk or nuisance. In the JLUS context, the following land uses are generally deemed inconsistent when near military aircraft operations as delineated in DoD Instruction 4165.57, Air Installation Compatible Use Zones, and Air Force Instruction (AFI) 32-7063, Air Installation Compatible Use Zone Program. [19] [20]

- Uses that concentrate people in a compact area (certain residential densities, schools, churches, hospitals).
- Vertical uses that encroach on air space (communications towers).
- Uses that may draw birds/animals near airfields creating a strike hazard for aircraft (e.g., retention ponds).
- Uses that may interfere with radio frequency.
- Uses that throw off excessive lighting and may impair a pilot's vision.
- Uses that throw off smoke, dust, and steam and may impair a pilot's vision.

The American National Standards Institute (ANSI) has published guidelines for assessing the compatibility of various types of land uses with different levels of sound exposures. Table 3.3 shows specific land use compatibility with yearly day-night average sound levels at a site for buildings as

[18] A "Powered model vehicle" means any self-propelled airborne, waterborne, or landborne plane, vessel, or vehicle which is not designed to carry persons, including but not limited to any model airplane, boat, car or rocket..

[19] U.S. Department of Defense, *Department of Defense Instructions - Air Installations Compatibility Use Zones*, November 8, 1977.

[20] U.S. Department of Defense *Air Force Instruction 32-7063, Air Installation Compatible Use Zone Program*, September 13, 2005.

commonly constructed (i.e., without special sound barriers).[21] ANSI S12.40 should be viewed as a recommended guideline and is not an enforceable regulation.

Table 3.3 Noise Levels and Land Use Compatibility

Land Use	Noise Levels							
	<55	55-60	60-65	65-70	70-75	75-80	80-85	95-90
Residential – single family (extensive outdoor use)								
Residential – multiple family (moderate outdoor use)								
Residential – multistory (limited outdoor use)								
Transient lodging (indoor use)								
School classrooms, libraries, religious facilities (indoor use)								
Auditoriums, concert halls (indoor use)								
Music shells (outdoor use)								
Sports arenas, outdoor spectator sports (outdoor use)								
Neighborhood parks (outdoor use)								
Playgrounds, golf courses, riding stables, water recreational areas, cemeteries (outdoor use)								
Office buildings, personal services, business and professional (indoor use)								
Commercial (indoor use)								
Livestock farming, animal breeding (outdoor use)								
Agriculture (except livestock) (outdoor use)								
Extensive natural wildlife and recreation areas (outdoor use)								

Compatible | Marginally compatible | Compatible with sound insulation | Incompatible

Source: ANSI S12.40, 1990. Appendix.

In general, guidance states that housing is compatible with noise exposure up to 55 DNL. Standards indicate that with exposure between 65 -75 DNL, additional protective measures, such as indoor noise reduction for residential and certain other types of indoor uses, may be warranted.

The following guidelines should be considered in designating new residential development:

- Is there a demonstrated community need for the residential use that would not be met if development were prohibited in these zones?

[21] American National Standards Institute, Sound *Level Descriptors for Determination of Compatible Land Use*, S12.40-1990.

- Where the community determines that residential uses are desired, structures should incorporate noise level reduction measures of at least 25 dB (for noise levels in the 65-75 DNL) and 30 dB (for noise levels in the 70-75 DNL range).

Noise level reduction criteria will not eliminate outdoor noise problems. However, building location and site planning, design, and use of berms and barriers can help mitigate outdoor noise exposure, particularly from ground-level transportation sources. Measures that reduce noise at a site should be used whenever practical in preference to measures that protect only interior spaces.

Guidelines deem noise exposure that exceeds 75 DNL to be incompatible with all residential uses. Many uses, such as manufacturing, retail, government facilities, and agriculture, can be suitable even within a relatively high noise setting.

In addition to ensuring that land uses should be compatible with noise levels, safety issues must also be considered. Certain uses are not permissible within the APZs described in the previous section because of safety considerations. Table 3.4 presents the recommended compatible land uses within the various air safety zones around Fort Richardson and Elmendorf AFB.

Table 3.4 Air Safety Compatibility Guidelines

Land Use	APZ II	APZ I	Clear Zone (CZ)
Households			
Industrial			
Retail			
Personal Services			
Public Services			
Outdoor Recreation			
Agriculture			

Compatible | Conditionally Compatible | Not Compatible

Source: DoD Instruction 4165.57, *Air Installation Compatible Use Zones, November 8, 1977.*

Land Uses - Elmendorf AFB and Fort Richardson

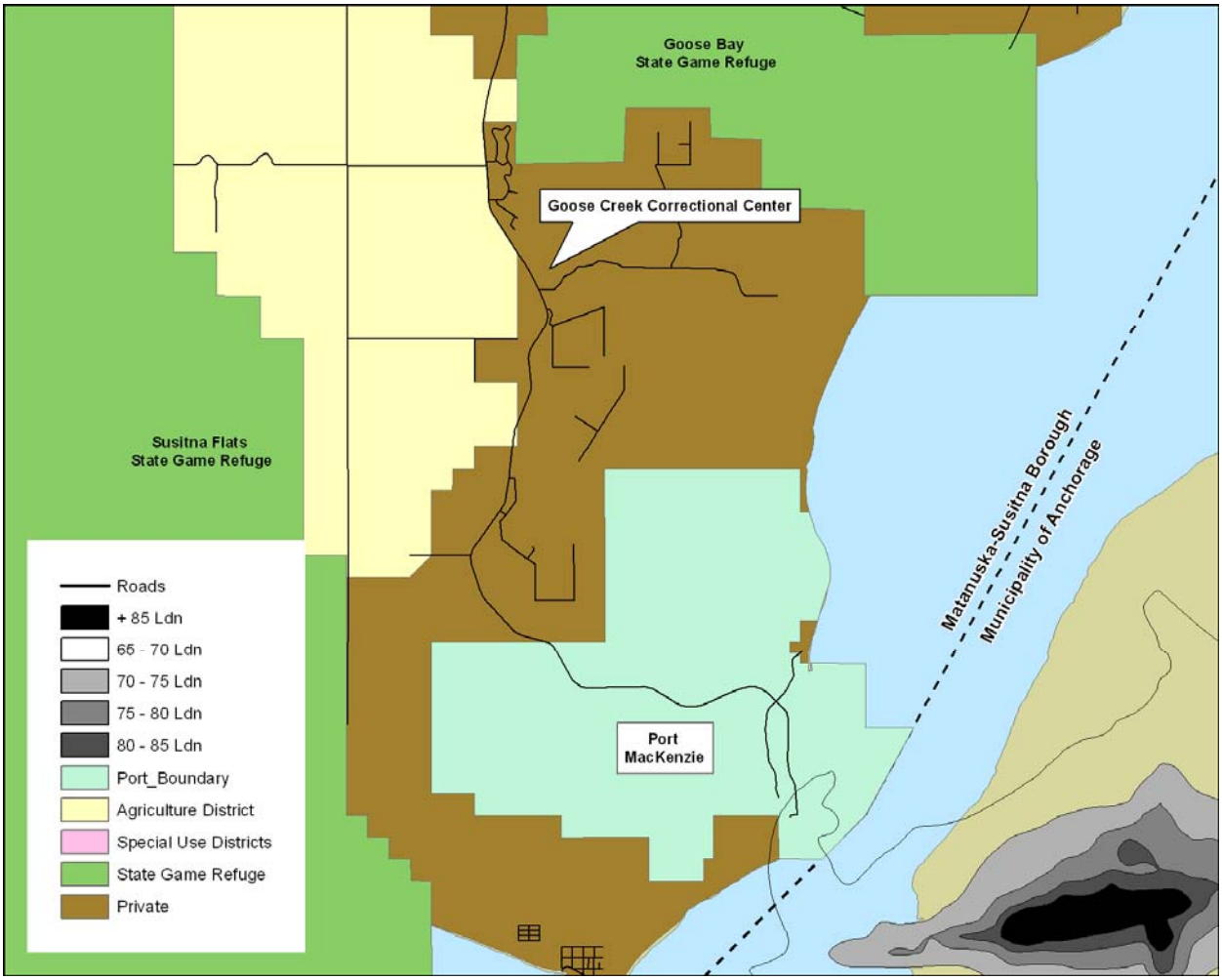
Elmendorf AFB and Fort Richardson are directly north of the Municipality of Anchorage (MOA) in the south central portion of the state of Alaska. They have a variety of land uses including residential, commercial, industrial, public/quasi-public, recreational, and open space. The airfield and related operation function on Elmendorf AFB are located in the center and southern part of the base along with a

variety of other uses. An industrial boundary acts as a buffer between the base's central mixed-use core and the housing and services area in the base's southwest and southeast corners.

3.2.1 Existing Land Uses in the MSB

The AICUZ indicates that there is one area within the MSB that would be exposed to noise in excess of 65 DNL once the scheduled base development is complete. This is the 23.5 acres at Point MacKenzie. The existing land uses in this area are small industrial, residential, and vacant wooded land. According to the AICUZ land use compatibility standards, certain land uses in this area are incompatible. In particular, all residential uses are discouraged, and mobile home parks should be restricted. Figure 6 shows the noise contours and land uses in this area.

Figure 6 Land Use Near Point MacKenzie

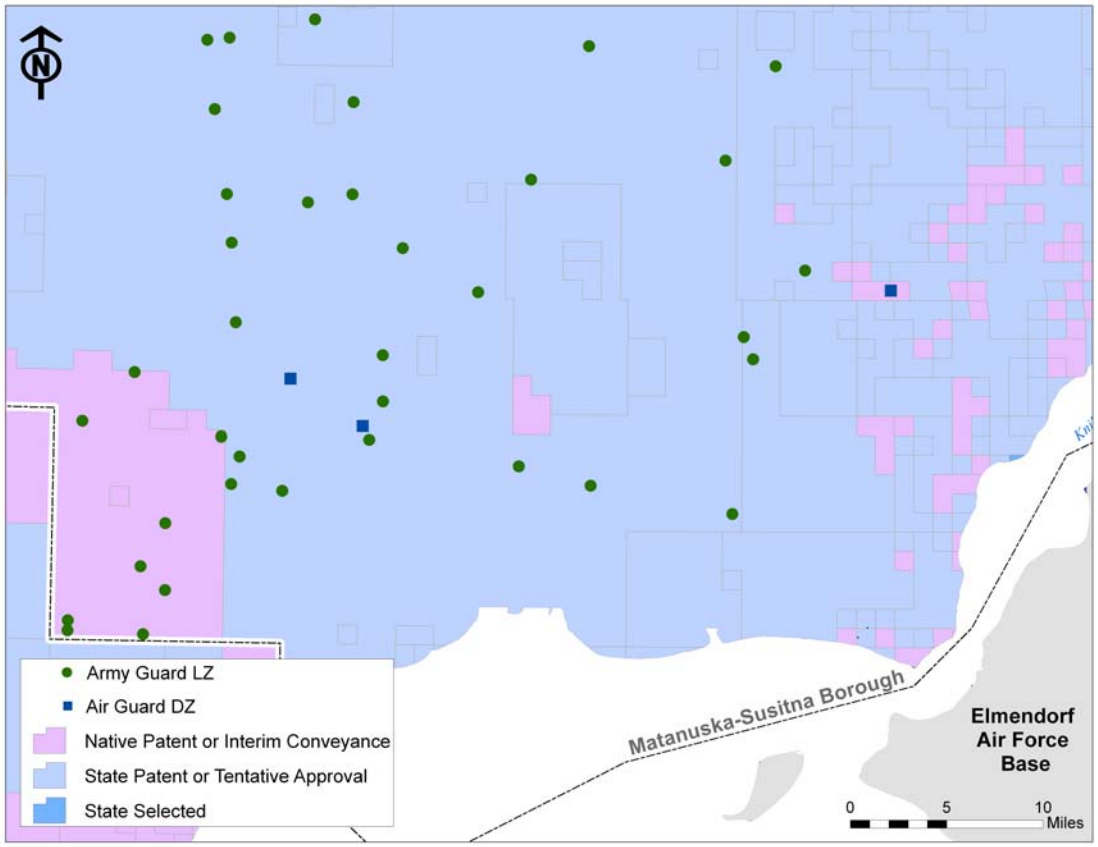


Other areas in the MSB that could be impacted by military activity include the LATN area which also extends beyond the study area. This area is, on the whole, sparsely populated. It covers areas that will not

be opened for residential development, such as Denali National Park and Preserve and Denali State Park. In the LATN there are also vacant lands owned privately, by the State of Alaska, the MSB, and the University of Alaska.

Within the MSB, LLTA4 there is primarily vacant land with small amounts of residential, industrial, and farmlands. These lands are owned privately, by the State of Alaska or are Native holdings. Land ownership is shown in Figure 7.

Figure 7 Land Ownership in the Low Level Training Area 4



3.3 Existing Noise/Land Use Policies

3.3.1 U.S. Army

The Army has a variety of tools in place to address operational impacts, such as noise, on off-post lands. These tools include the Army regulations for noise management and the Installation Environmental Noise Management Plan (IENMP). An Environmental Impact Statement, completed in 2004 to address the

changing mission in Alaska, also outlines several noise and land use mitigation policies. In 2005, the Alaska Army National Guard developed an Operational Noise Management Plan that, in addition to a noise assessment, includes policies about education of both installation personnel and surrounding residents, management of noise complaints, mitigation of the noise and vibration, and noise abatement. The current practice when noise is reported is outlined on the military website at: http://www.elmendorf.af.mil/questions. The website provides the option of calling in the noise complaint or filling out a questionnaire on-line and emailing it back. The website states that responses to emails are provided within three working days.

Noise-related regulations and documents are described below.

Noise Management Regulations

The Army's current noise management practices are laid out in Army Regulation 200-1.[22] Its stated goals are to:

1. Control environmental noise to protect the health and welfare of people, on- and off-post/Civil Works Facility (CWF), affected by all Army-produced noise, including on- and off-post/CWF noise sources.
2. Reduce community annoyance from environmental noise to the extent feasible, consistent with Army training and materiel testing activities.

Ten policies based on land use compatibilities set out guidelines for the Army's noise program. These policies focus on continual evaluation of noise produced by ongoing or proposed Army actions/activities. Compliance with federal laws and noise regulations is stressed, and equipment modifications recommended when possible to reduce noise. The policies state that every effort should be made to plan for compatible land use, but that all practical means of achieving acceptable noise levels should be exhausted and the operational integrity of the mission threatened, before considering acquiring property rights solely on the basis of incompatible noise levels.

Installation Environmental Noise Management Plan

Fort Richardson adopted an IENMP in October 2001. At that time, few complaints were made with Fort Richardson regarding noise concerns, and those complaints that were logged tended to be questions about what the noise was and when it would end. An October 2008 communication with the Public Affairs

[22] Final Transformation Environmental Impact Statement, U.S. Army Alaska. Appendix H, p. 3-159. 2004.

Officer at Fort Richardson indicated a similar, low-level of noise-related complaints. Complaints are all over ground-based noise, not aviation-related noise. According to post personnel, the practice of providing advance notice of training schedules to the community significantly reduced the number of such calls received.

Recommendations provided in the IENMP, which were provided as a range of possible preventative measures to minimize future noise problems, fall into several categories:

- ***General recommendations***. These deal primarily with ways to disseminate information to the community regarding unusual noise-generating activity, ways to respond to noise-related complaints, and suggestions about locating noise-generating activities (such as firing ranges and training exercises) away from noise-sensitive receptors.
- ***Specific considerations for airfield-related noise disturbance or safety-related issues***. These recommendations are designed to minimize noise conflicts through land use planning in the areas surrounding the airfield, pilot education, and flight path modifications.
- ***Weapons training related considerations.*** These present recommendations about time of day, climatic considerations, and noise barriers.
- ***Additional options for case-by-case issue resolution***. These options include the development of an MSB JLUS, among many other recommendations.

The Army's responsibilities were summarized in the IENMP as:

- Respond quickly to complaints.
- Successfully resolve complaints.
- Monitor the number and nature of complaints.
- Review training patterns that could change noise contours.
- Remain involved in MSB's land use planning process.

Since the number of noise complaints is currently low, the IENMP did not identify specific desired actions for the Army to take. However, the IENMP did recommend that Fort Richardson staff be included in MSB land use planning, development, and regulation processes dealing with the area surrounding the installation.

Transformation of U.S. Army Alaska: Final Environmental Impact Statement

In 2004, the U.S. Army published an Environmental Impact Statement (EIS) that provided information about the changing army mission in Alaska. The study identified numerous existing and proposed recommended mitigation tools:

- ***Natural resources.*** Several mitigation measures were recommended to respond to new or increasing impacts on wildlife and fisheries. It also recommended continuing updates to the Integrated Natural Resource Management Plan (INRMP).
- ***Communication.*** The EIS had several recommendations about continuing or improving communication practices, such as public notification of nighttime firing, and automated check-in phone system with information about daily closures.
- ***Recreation.*** Mitigation measures included several recommendations focusing on recreation, such as monitoring recreational vehicle use, streamlining public recreational access permits, and holding public informational meetings about recreational use on US Army lands.
- ***Transportation.*** The EIS described the existing system of splitting convoys into smaller groups, staggering departure times, and getting permits. The report also proposes considering alternative travel routes, such as rail and developing rail capability, as well as expanding the public notification of convoy activity.

3.3.2 Army National Guard Operational Noise Management Plan

The Alaska Army National Guard developed an Operational Noise Management Plan (ONMP) to help maintain its ability to perform and maintain its mission and to reduce the potential for conflict between the installation and surrounding communities.

3.3.3 Air Force

The Air Force compatibility tools include following the general DoD Policies and the Elmendorf AFB AICUZ. The AICUZ update was based on modeled contours rather than an actual noise study. An AICUZ noise study was scheduled for Elmendorf AFB in summer 2009, which included a reevaluation of the existing modeled noise contours.

Department of Defense Policy

The DoD Instruction 1465.57 sets DoD policy on achieving compatible use of public and private lands in the vicinity of military airfields. This instruction also describes the procedures for defining Air

Elmendorf AFB Noise Complaints

"The Public Affairs Office receives the noise complaints and has 72 hours to respond. By far, most of the calls come from Anchorage. Recently, one of the runways was closed for construction and there were a lot of calls from Government Hill. More typically, calls come from Mountain View and the Boniface area. Occasionally calls are received from isolated cabins in the valley and from as far away as Eielson AFB.

The records of who called, when and the nature of the complaint are kept on file. Investigations into the complaints can pinpoint the pilot or pilots who were in the area at the time and determine whether they were above or below the proper elevation level. Pilots are notified if they were not in compliance with procedures."

Interview with Elmendorf Public Affairs Office, September 17, 2008

Installation Compatible Use Zones. A summary of AICUZ guidelines for Elmendorf AFB is presented in Section 3.1 (*Compatible Use Zones*).

DoD Instruction 1465.57 states that "As a first priority step, all reasonable, economical and practical measures will be taken to reduce and/or control the generation of noise from flying and flying related activities." Typical measures might include situating engine test and run-up facilities in remote areas whenever possible, provision of sound suppression equipment, and adjustment of air traffic patterns to avoid populated areas where this can be accomplished safely and without impairing operational effectiveness. Even after these measures are taken, there often remain areas where total noise exposure will be incompatible with certain uses.

The DoD policy is to strive to achieve compatibility with civilian communities in areas around installations through joint land use planning and control processes conducted by the local community. Compatibility guidelines are those defined for Clear Zones, APZs, and noise zones described earlier in this chapter.

The method of control and regulation of land use in each zone is to be done locally; however, in all cases, the Air Force is available to assist with the identification of planning areas and provide reasonable land use guidelines to the appropriate entities in control of planning in the affected areas.

Elmendorf AFB AICUZ Study

This study is an update to the 1993/2000 Elmendorf AFB Air Installation Compatible Use Zone (AICUZ) Study. The minor changes in the AICUZ study are attributed to the establishment (Beddown) of the F-22A aircraft at Elmendorf AFB analyzed in the F-22A Beddown Environmental Assessment (EA), June 2006[23]. The study presents changes in flight operations since the last study, and provides current noise

[23] F-22A Operational Wing Beddown Environmental Assessment, June 2006.

contours and compatible use guidelines for land areas surrounding the base. The AICUZ study is intended to serve as a tool for future planning activities for both Elmendorf AFB and surrounding communities.

This AICUZ update outlines several changes that have occurred, including the mix of aircraft, operations, and mission changes. The Base General Plan describes existing conditions on the installation.

The AICUZ goals are to:

(1) Promote compatible development within the AICUZ area of influence.
(2) Protect U.S. Air Force operational capability from the effects of land use that are incompatible with aircraft operations.

To accomplish these goals, the AICUZ study update has several objectives:

Air Force Responsibilities:

- Assist local, regional, state, and federal officials in protecting and promoting the public health, safety, and welfare by promoting compatible development within the AICUZ area of influence.
- Protect Air Force operational capability from the effects of land use that are incompatible with aircraft operations.

Local Community Responsibilities

- Incorporate AICUZ policies and guidelines into regional plans.
- Use overlay maps of the AICUZ noise contours, APZs, and Air Force Land Use Compatibility Guidelines [24]to evaluate existing and future land use proposals.
- Modify, where appropriate, existing zoning ordinances and subdivision regulations to support the compatible land uses outlined in this AICUZ study update.
- Amend the existing height and obstruction ordinance that reflects current Air Force and FAA FAR Part 77 requirement to include military airfields in addition to civilian airports.

[24] *Air Force Instruction 32-7063, Civil Engineering Air Installation Compatible Use Zone Program* September 13, 2005.

- Modify building codes, as appropriate, to ensure that new construction within the AICUZ area has recommended noise level reduction measures incorporated into the design and construction of those structures.

- Coordinate with the Military Community Planners regarding planning and zoning that have the potential to affect base operations. Develop a working group of municipal and Air Force planners to discuss planning issues affecting encroachment and other issues.

3.3.4 Matanuska-Susitna Borough

Borough code regulates amplified sound and vibration and noise generated from powered model vehicles (MSB 8.52). The land use regulations establish specific times of day when amplified sound may not exceed specified decibel levels. A temporary noise permit exists that allows exceeding the regulations under certain conditions and a noise fine process exists for complaints and enforcement. Borough code does not include overlay zones or areas related to non-commercial noise.

3.4 Analysis of Future Land Uses

Within the MSB, future land uses in the community of Point MacKenzie could impact the Air National Guard LATN and the Army National Guard LLTA4. Point MacKenzie, with a current population of about 279, is projected to increase with the upcoming correctional facility, operation of the ferry, and the extension of the railroad. The correctional facility will be built about 9 miles north of Port MacKenzie. Construction is expected be completed in 2012. The borough estimates the project will employ 600 to 700 people during construction and about 350 after the facility opens.

The borough also has plans to expand the Port MacKenzie marine port and industrial complex. There are also plans to build a public boat launch at the port.

Port MacKenzie Future Expansion

There are no future land use maps available of this area.

In addition to the Point MacKenzie area, there are other public lands within the study area that have the potential for development where compatibility issues could arise in the future. These lands, located primarily within the Alaska National Guard training areas, include land for sale by the MSB, state, Mental Health Trust and the University of Alaska**.**

There are four landing zones located on land owned by the MSB, state or Mental Health Trust and another thirteen that are located within two miles of these lands. The sale of these lands for residential or commercial use could raise compatibility issues with training activities in the future.

4.0 Implementation Strategy

4.1 Compatibility Tools

This section contains a series of tools that the military and the local governments can choose to adopt to address the issues documented during the JLUS process. All of the entities participating in the JLUS, including the Army, Air Force, National Guard, cities, and borough, retain the right to select the compatibility tools that best reflect the specific issues, concerns, and needs of each stakeholder.

The JLUS Technical and Policy Advisory Committees discussed this list of compatibility tools during meetings in the fall and winter of 2008/2009. The JLUS project team also held public meetings in Point MacKenzie, Willow, Big Lake, and Glacier View to gather feedback on possible land use strategies.

The resulting set of tools seeks a balance among these diverse interests by emphasizing:

- Feasibility of implementation.
- Sustainability of the economic health of the region and the protection of individual property rights.
- Protection of the critical military missions performed by personnel at Fort Richardson and Elmendorf AFB.
- Protection of the health, safety, welfare, and overall quality of life of those who live and work in the MSB and surrounding region.

This section identifies the most promising options identified for reducing current and future conflicts between civilian and military land uses. The tools include measures that are designed specifically for local governments in the MSB and tools specifically for the military implementation.

This section is organized into an overview of basic approaches to enhancing military and civilian community compatibility and specific recommendations for local civilian jurisdictions and the military to address the following issues:

- Noise
- Airspace conflicts
- Land use compatibility
- Communication

4.2 Overview of Compatibility Approaches

4.2.1 Communication/Information

It is important to establish clear mechanisms for information exchange between residents, local governments, and the military. Increased communication raises overall awareness of military activities and their associated impacts, and assists in identifying possible approaches to reduce land use conflicts with surrounding communities.

One of the most critical outcomes of the JLUS is the communication link developed during the JLUS process itself. Stakeholders from the MSB and military officials have had the opportunity to build collaborative relationships, identify mutual interests, and work toward reasonable solutions that protect both civilian and military goals. Coordination and organization tools create the institutional capacity to support ongoing implementation.

4.2.2 Planning and Public Policy

Planning and public policy tools, such as comprehensive plans, are intended to guide overall growth patterns within local jurisdictions. These can be developed in ways that support future military/civilian compatibility.

4.2.3 Land Management Practices

Land management practices include provisions or regulations that control development densities and land use activities within established noise and safety zones around the airfields to protect the health, safety, and welfare of the public and maintain compatibility with military operations. These measures are intended to accommodate future growth, while minimizing the concentrations of people and activities that may trigger conflicts with noise and other operational impacts. Since local jurisdictions exercise land use control through tools such as zoning, any regulatory tool or revisions to current zoning would be implemented through the established MSB Planning Department or other local jurisdiction.

4.2.4 Military Operations

Just as the spread of growth from nearby jurisdictions can threaten the viability of military operations at Fort Richardson and Elmendorf AFB, changes in planned military missions, aircraft, and land use activities at the installations can affect the livability of the surrounding communities. The purpose of operational modifications is to minimize the impacts experienced by communities around the military installations, while protecting the viability of the military mission.

4.3 Recommendations

The JLUS identifies the following recommendations for all of the jurisdictions within the MSB and the military. The recommendations are organized by issue topic: noise, airspace conflict, land use compatibility, and communication. Some of the recommendations are directed toward the MSB or local MSB communities to accomplish, while other recommendations are intended to be implemented by the military. A summary of the recommendations is shown in Table 4.1.

4.3.1 Noise

Noise from low-flying aircraft, both fixed wing and helicopters, was a concern to some residents. Noise issues should not increase from future military growth and operational changes as outlined in previous sections. Noise complaints are rare; however, the following measures are recommended to reduce noise concerns and prevent any future problems as both the military presence and MSB grow in the area. Many of the recommendations concern a portion of the 23.5 acres near Port MacKenzie that contain lands within the 65 DNL noise contour as identified by the military in the AICUZ study. The existing land uses in this area are small industrial, residential, and vacant wooded land.

1. ***Recommended MSB Action – Incorporate military noise contours into MSB Comprehensive Plan and zoning codes.***

   The MSB would amend the MSB Comprehensive Plan as necessary to ensure that local land use decisions are compatible with existing civilian and military aviation patterns within the 65 DNL near Port MacKenzie. Place noise contours in the MSB geographic information system (GIS) database. Create and adopt a noise overlay zone for affected area.

2. ***Recommended MSB Action – Inform land owners within the 65 DNL contour of their noise sensitivity status.***

   The MSB would inform land owners within the 65 DNL contours of their status within the 65 DNL contour. MSB would write a letter including this information and provide recommendations for reducing noise impacts.

3. ***Recommended MSB Action – Amend Title 27 to require a note on the plat for subdivisions within the 65 DNL contours.***

   The MSB would amend Title 27 to require Platting Board review of subdivision layouts within the 65 DNL contour at Port MacKenzie. They would also apply a plat note to notify potential

owners of the proximity of their land to 65 DNL contours and offer sound attenuation recommendations.

4. Recommended MSB Action – Enforce mobile home and noise sensitive compatibility.

According to the AICUZ land use compatibility standards, certain land uses within the 65 DNL contour are incompatible. In particular, the compatibility standards state that all residential uses would be discouraged and mobile home parks would be restricted.

Currently, mobile home parks are restricted in the Point MacKenzie Special Land Use District (SPUD); a permit is required. Mobile home park development within the 65 DNL contour currently requires a case-by-case issue resolution. The MSB would prohibit mobile home parks within the 65 DNL contour noise sensitive area.

5. Recommended MSB Action – Maintain residential densities within existing and future noise sensitive areas.

The MSB would adopt policy prohibiting an increase of residential density for existing residential areas within the existing and future 65 DNL contour (this only impacts an area in Point MacKenzie). This will prevent increased development of incompatible residential uses within air operations areas. This tool requires amending the comprehensive plan and MSB Title 17 as necessary.

6. Recommended MSB Action – Consider noise attenuation in construction codes.

While currently no formal construction code exists in the borough, when construction codes are proposed, the MSB would consider proper standards related to noise attenuation. This action would require language for development in noise sensitive areas to reduce noise levels. It is assumed that normal weatherization measures will meet most noise attenuation needs.

7. Recommended Military Action – Continue Noise Complaint Management Process.

Currently, the Alaska Air National Guard and the Army National Guard each has a Noise Complaint Management Process, handled through its Public Affairs Office (PAO). This process would continue and would allow for feedback from civilians on noise issues to assist with minimizing conflicts. This process would also be strengthened by disseminating information about the process and the PAO phone numbers more widely.

8. ***Recommended Military Action – Post local military noise contour maps and related information on the web and publish in local papers.***

Elmendorf AFB would continue to make the AICUZ and the Installation Environmental Noise Management Plan and related maps available on publicly accessible website(s).

At the beginning of the spring, the Elmendorf AFB PAO would publish a summary of noise-related information in the local newspapers. It would include information about current and proposed changes to operations that might influence noise generation.

Both of these actions would help to minimize conflicts through enhanced communication.

9. ***Recommended Military Action – Maintain up-to-date noise contours in GIS.***

The Elmendorf AFB GIS office would maintain up-to-date noise contours for air traffic in a GIS database. This information would be provided to the MSB for integration into the borough's database and would be available to the public. This would assist in the review of air operations and major flight paths for conflicts with existing residences. It would also serve as a resource for individuals considering purchase of land in the affected area.

10. ***Recommended Military Action – Avoid flying over residential areas to the maximum extent practicable.***

To minimize noise-related conflicts, Elmendorf AFB, Alaska Air National Guard, Army National Guard, and the Division of Military and Veterans Affairs (DMVA) office would review flight operations on an ongoing basis and include civilian land use patterns into that review. To the most practical extent possible, the Elmendorf AFB and Alaska Air National Guard would avoid flying low over residential areas. They would maintain a database of noise-related complaints, and incorporate that information into operations review.

4.3.2 Airspace Conflicts

Airspace in parts of the borough is crowded; particularly in the Big Lake area located approximately 10 miles from Wasilla. This area has an extremely high number of private pilots. Changes in military operations and the relocation of Kulis Air National Guard facilities are not forecast to change military air traffic significantly. However, the continuing growth of MSB could result in an increase of civilian air traffic.

To address potential airspace conflicts, Elmendorf AFB has two approaches to inform the flying public of current operations and to discuss issues. Military personnel from the 611th Air and Space Operations Center, through the Alaska Civil Military Aviation Council (ACMAC) meet twice a year, (the fall and spring), to discuss military airspace issues. They invite members of many groups including the Aircraft Owners and Pilots Association, the Federal Aviation Administration and the Flight Service Station. Another safety program is implemented by the 3WG. They produce an informative pamphlet called the Mid-Air Collision Avoidance (MACA) pamphlet. This publication provides details about the MOA's and safety procedures to avoid mid-air collisions and is distributed to the Flight Service Station, Merrill Field and smaller airfields like Birchwood.

The following are recommendations to minimize air space conflicts:

1. ***Recommended Military Action – Coordinate with the MSB Aviation Advisory Board concerning potential air use conflicts.***

   The military would coordinate the MSB Aviation Advisory Board to minimize conflicts between civilian uses and military training schedules and exercises. Military officials would attend MSB Aviation Advisory Board meetings as requested.

2. ***Recommended Military Action – Continue to provide and expand information given to civilian pilots on military air use policies.***

   The military would continue to raise the awareness of civilian pilots through twice yearly ACMAC meetings and distribution of the MACA pamphlet. In addition, the military would provide the MACA pamphlet to each of the airport managers located in the study area, the MSB Aviation Advisory Board, the MSB Planning Commission and Platting Board and the Big Lake, Glacier View and Point MacKenzie Community Councils. Attend Community Council meetings if requested.

3. ***Recommended Military Action – Continue to add locations of incompatible flight areas in the 11th Air Force Handbook.***

   The 11th Air Force Handbook identifies areas where civilians have concerns about military aircraft flights. Elmendorf AFB, the Alaska Air National Guard, Army National Guard, and the DMVA office would continue their current practice of documenting these locations in the 11th Air Force Handbook and avoiding these areas.

4. **Recommended military action – Military aircraft operating VFR below 3,000' in the MSB will monitor Common Traffic Advisory Frequencies, make position reports in accordance with the Airman's Information Manual when in the vicinity of an airport, and acknowledge other aircraft that report a position that may be a factor to their operation.**

4.3.3 Land Use Compatibility

The Point MacKenzie community is growing and changing, including a new correctional facility, port expansion, a new ferry system, and a railroad spur connecting the port to the statewide rail system. In addition, residential areas are being developed in and around other areas potentially affected by noise caused by military aircraft. The following tools will mitigate compatibility issues that occur in the study area.

1. ***Recommended MSB Action – Incorporate AICUZ policies into local comprehensive plans and zoning guidelines.***

The MSB would use overlay maps of the AICUZ noise contours and incorporate Air Force Land Use Compatibility Guidelines when developing comprehensive plans for lands that may be impacted by military-generated noise. Generally this would include lands in the Point MacKenzie Community and in the LATN and LTA4. Where appropriate, they would also modify existing zoning ordinances and subdivision regulations to support the compatible land uses outlined in military AICUZ studies and updates.

2. ***Recommended MSB/Military Action – Raise awareness of the Planning Commission and Platting Board about impacts of land use decisions on military installations.***

The MSB would invite Elmendorf AFB, Alaska Air National Guard, and Army National Guard PAOs or their representatives to the MSB Planning Commission and Platting Board on an as-needed basis to serve as two-way communicators on land use and training issues. This will help to raise the awareness of Planning Commission and Platting Board members on impacts of their land use decisions on the military installations so they can make more fully informed decisions.

3. ***Recommended Military Action – Consider the identification and acquisition of land that may be needed to protect military operations from encroachment.***

Elmendorf AFB, Alaska Air National Guard, and Army National Guard would conduct internal reviews to determine if there is a need to purchase or otherwise obtain ownership of lands that

may be needed in the future to prevent encroachment that represents a threat to mission-essential military operations. This would remove key land use conflicts. An example could be drop zones and landing zones.

4. ***Recommended Military/MSB Action – Conduct meetings with Military and Alaska State officials and MSB to discuss land sales within training areas***

The military (Elmendorf AFB, Commissioner of Department of Military Affairs) would meet with the Commissioner of the Alaska Department of Natural Resources to identify potential land sales within or near mission-essential military operations (e.g., drop zones and landing zones) and consider mitigation actions. Actions could include prioritizing land sales not in conflict with landing zones or altering location of landing zones to avoid conflicts with subdivision or other development.

4.3.4 Communication

Currently, MSB and the military do not have regularly scheduled meetings to discuss land use, noise, and other compatibility issues. The following measures are recommendations to increase communications between MSB officials, the public, and the military:

1. ***Recommended MSB/ Military Action – Conduct meetings with community leaders for informal information sharing.***

MSB and the military (Elmendorf AFB, Fort Richardson, Alaska Air National Guard, Army National Guard, and DMVA) would maintain regularly scheduled meetings in the MSB Mayor's office to informally and candidly share mutually beneficial community and military information. This would help to ensure the ongoing sharing of information about changes on military operations, community impacts, and community needs. These meetings could also be used as a forum for periodic review of the implementation of the overall MSB JLUS recommendations. Communicate relevant information to the public.

2. ***Recommended Military Action – Provide the public with updated information.***

The military (Elmendorf AFB, Fort Richardson, Alaska Air National Guard, and Army National Guard PAOs) would provide the public with information for submitting noise complaints and information for civilian pilots. This can be done through a number of public channels including: postings, bulletins, email, websites, and mailers.

3. ***Recommended Military Action – Coordinate training schedules.***

The military (Elmendorf AFB, Alaska Air National Guard, and Army National Guard PAOs) would work with local airport managers in the study area to communicate flight schedules. This would help to minimize the impacts of military flying activities on civilian recreational flying.

4. ***Recommended Military Action – Strengthen public outreach efforts and communication of significant operational changes.***

The military (Elmendorf AFB, Fort Richardson, Alaska Air National Guard, and Army National Guard PAOs) would provide 3 days notice to the public for noise generated by unusual flight patterns or training operations, atypical use of munitions, convoys, and atypical or new use of areas. This public outreach effort would expand to consider incorporating multimedia options (such as radio, television, and newspaper, email and internet) and post-event notifications.

5. ***Recommended MSB Action – Contact the Alaska Civilian Military Aviation Council.***

The Alaska Civilian Military Aviation Council meets twice a year and can be a forum for discussions about military and civilian pilot activity as well as citizen concerns. The MSB would request notification of meeting times and locations so they may let the Council know of any concerns they have or of any steps they are taking that would be of interest to the military, such as noise overlay zones.

6. ***Recommended Military Action – Provide public with information on landing and drop zones.***

The landing and drop zones currently occur on rural non-military land. Elmendorf AFB, Alaska Air National Guard, and Army National Guard provide the MSB with notification of these zones to reduce the development of incompatible uses; the MSB GIS department plots the coordinates for each of the landing zones and drop zones on the GIS database for public information. The military would send a letter to land owners explaining the significance of the landing zones and drop zones.

5. ***Recommended Military Action – Continue to inform Planning Commission and Platting Board about changes to flight patterns.***

The Elmendorf AFB and Fort Richardson PAOs would provide notice to borough officials of any changes to their flight patterns, such as during military exercises like Red Flag Alaska.

4.4 Measures of Success

The following methods are suggested to help the MSB and the military measure the success of the compatibility tools and recommendations presented in Table 4.1.

4.4.1 Noise

Methods to measure the success of proposed compatibility tools and recommendations for noise include:

1. ***Recommended MSB Action – Incorporate military noise contours into MSB Comprehensive Plan and zoning codes.***

   Measure of success: MSB amends its Comprehensive Plan to reflect the 65 DNL contour, incorporates military noise contours into the MSB GIS database, and adopts noise overlay zone.

2. ***Recommended MSB Action – Inform land owners within the 65 DNL contour of their noise sensitivity status.***

   Measure of success: MSB sends letters to landowners within the 65 DNL contour informing them of status, with recommendations for reducing noise impacts and providing contact information.

3. ***Recommended MSB Action – Amend Title 27 to require a note on the plat for subdivisions within the 65 DNL contours.***

   Measure of success: MSB amends Title 27 to require Platting Board review of subdivision layouts within the 65 DNL contour and application of notes to plats notifying potential owners of proximity to the 65 DNL contour and offering sound attenuation recommendations.

4. ***Recommended MSB Action – Enforce mobile home and noise sensitive compatibility.***

   Measure of success: MSB amends Title 27 to prohibit mobile home parks within the 65 DNL contour.

5. ***Recommended MSB Action – Maintain residential densities within existing and future noise sensitive areas.***

   Measure of success: MSB amends its Comprehensive Plan and MSB Title 17 to prohibit increased residential density for existing residential areas within the 65 DNL contour. MSB monitors noise contours and amends the plan as necessary as 65 DNL contour changes.

6. ***Recommended MSB Action – Consider noise attenuation in construction codes.***

Measure of success: MSB includes standards to reduce noise for development in noise-sensitive areas, when construction codes are developed.

7. ***Recommended Military Action – Continue Noise Complaint Management Process.***

Measure of success: The Alaska Air National Guard and Army National Guard PAOs continue the Noise Complaint Management Process with procedures that allow for civilian feedback on noise issues. PAOs strengthen the process by disseminating process information and PAO phone numbers more widely.

8. ***Recommended Military Action – Post local military noise contour maps and related information on the web and publish in local papers.***

Measure of success: Elmendorf AFB PAO posts local military noise contour maps and related information on its website and publishes a summary each spring in local papers that includes current and proposed operational changes.

9. ***Recommended Military Action – Maintain up-to-date noise contours in GIS.***

Measure of success: The Elmendorf AFB GIS office incorporates noise contours for air traffic and firing ranges in the GIS database and provides the data to MSB for integration into its database available to the public.

10. ***Recommended Military Action – Avoid flying over residential areas to the maximum extent practicable.***

Measure of success: The military (Elmendorf AFB, Alaska Air National Guard, Army National Guard, and DMVA office) conducts an ongoing review of flight operations and civilian land use patterns, maintains a database of noise-related complaints, and incorporates information in operations review.

4.4.2 Airspace Conflicts

Methods to measure the success of proposed compatibility tools and recommendations for airspace conflicts include:

1. ***Recommended Military Action – Coordinate with the MSB Aviation Advisory Board concerning potential air use conflicts.***

Measure of success: The military and the MSB Aviation Advisory Board would establish regular communication and military officials would attend MSB Aviation Advisory Board meetings as requested.

2. ***Recommended Military Action – Continue to provide and expand information given to civilian pilots on military air use policies.***

Measure of success: The 611 AOC would continue to coordinate ACMAC meetings and invite the MSB Aviation Advisory Board. The 3WG would continue to produce the MACA pamphlet and expand its distribution to include more airport managers within the study area, MSB Planning Commission and Platting Board members and Big Lake, Glacier View and Point MacKenzie Community Councils. As requested, military officials would attend Community Council meetings.

3. ***Recommended Military Action – Continue to add locations of incompatible flight areas in the 11th Air Force Handbook.***

Measure of success: The military (Elmendorf AFB, Alaska Air National Guard, Army National Guard, and DMVA office) reviews all civilian complaints about military operations and, if appropriate, adds locations to the 11th Air Force Handbook and avoids those areas.

4.4.3 Land Use Compatibility

Methods to measure the success of proposed compatibility tools and recommendations for land use include compatibility:

1. ***Recommended MSB Action – Incorporate AICUZ policies into local comprehensive plans and zoning guidelines.***

Measure of success: MSB incorporates AICUZ policies (and noise contours as appropriate) into local comprehensive plan and zoning and subdivision regulations.

2. ***Recommended MSB/Military Action – Raise the awareness of the Planning Commission and Platting Board on impacts of land use decisions on military installations.***

Measure of success: MSB invites military representatives (Elmendorf AFB, Alaska Air National Guard, and Army National Guard PAOs) to MSB Planning and Platting Boards as needed to raise the awareness of board members on the relationship between land use decisions and military operations.

3. ***Recommended Military Action – Consider the identification and acquisition of land that may be needed to protect military operations from encroachment.***

Measure of success: The military (Elmendorf AFB, Alaska Air National Guard, and Army National Guard) identifies land within or near mission-essential military operations (e.g., drop zones and landing zones), reviews land use and future growth plans, and considers acquisition in areas of key land use conflicts.

4. ***Recommended Military/MSB Action – Conduct meetings with Military and Alaska State officials and MSB to discuss land sales within training areas***

Measure of success: Mitigation actions are developed that reduce potential conflict between military training missions and subdivision development and other conflicting land uses.

4.4.4 Communication

Methods to measure the success of proposed compatibility tools and recommendations for communications include:

1. ***Recommended MSB/Military Action – Conduct meetings with community leaders for informal information sharing.***

Measure of success: MSB and the military (Elmendorf AFB, Alaska Air National Guard, Army National Guard, and DMVA) conduct regular meetings with community leaders for information sharing about military operations, community impacts, and community needs and for a periodic review of overall MSB JLUS recommendations. MSB schedules meetings and communicates decisions to public.

2. ***Recommended Military Action – Provide the public with updated information.***

Measure of success: The military (Elmendorf AFB, Alaska Air National Guard, and Army National Guard PAOs) provides the public with updated information for submitting noise complaints and provides civilian pilots with updated information on military operations via mailers, information bulletins, and website.

3. ***Recommended Military Action – Coordinate training schedules.***

Measure of success: Military (Elmendorf AFB, Alaska Air National Guard, and Army National Guard PAOs) coordinates training schedules with local airport managers.

4. ***Recommended Military Action – Strengthen public outreach efforts and communication of significant operational changes.***

Measure of success: The military (Elmendorf AFB, Alaska National Guard PAOs) provides 3 days notice to the public (e.g., radio, television, newspaper, and post-event notifications) for noise generated by unusual flight patterns or training operations, atypical use of munitions, convoys, and atypical or new use of areas.

5. ***Recommended MSB Action – Contact the Alaska Civilian Military Aviation Council.***

Measure of success: MSB assigns staff person to request information about twice-yearly meetings of the Alaska Civilian Military Aviation Council to communicate concerns or measures of interest to the military.

6. ***Recommended Military Action – Provide public with information on landing and drop zones.***

Measure of success: The military (Elmendorf AFB, Alaska National Guard PAOs) provides locations of landing and drop zones to MSB to enter into GIS database and sends a letter to adjacent land owners explaining the significance of these lands.

Table 4.1 Compatibility Tools and Recommendations

Proposed Tool	Definition	Purpose/Intent	Action Steps	Implementation Responsibility
Noise				
1. *Incorporate military noise contours into MSB Comprehensive Plan and land use regulations*	The MSB would develop comprehensive plans that identify and discuss land within the 65 DNL contour identified by the military. They would also develop and adopt a Noise Overlay zone for this area.	Ensure that all future development and growth within the 65 DNL contour are not in conflict with existing military land use compatibility guidelines.	Import existing military AICUZ noise contours onto MSB GIS database. Incorporate noise contours into the MSB Comprehensive Plan. Develop noise overlay zone for impacted areas.	MSB Planning Dept., Planning Commission, Assembly
2. *Inform land owners within the 65 DNL contour of their noise sensitivity status*	The MSB would notify land owners of their location within the 65 DNL contour by letter and provide them information about the significance and contacts for further information.	Ensure that current property owners are informed about their exposure to the 65 DNL contour and are given contacts to learn more as needed.	Coordinate with the military to develop the letter and send to affected property owners. Provide contacts for further information.	MSB Planning Dept.
3. *Amend Title 27 to require note on plat for subdivisions within 65 DNL contour*	The MSB would amend Title 27 to require Platting Board review of each preliminary subdivision layout to determine if a documented noise impact exists.	Ensure that new construction within the 65 DNL contour has the recommended noise level reductions on the plat and that owners are given notice of potential noise impacts.	Review Title 27 and make necessary changes to require Platting Board review of each preliminary subdivision layout and to apply note to plat.	MSB Planning Dept., Planning Commission, Platting Board, Assembly
4. *Enforce mobile home and noise sensitive compatibility*	The MSB would discourage residential uses and restrict mobile home parks in incompatible land use zones.	Develop regulations that prohibit incompatible uses.	Restrict mobile home parks within the 65 DNL contour.	MSB Planning Dept.
5. *Maintain residential densities within existing and future noise sensitive areas*	The MSB would adopt policy forbidding an increase of residential density for existing residential areas within the existing and future 65 DNL contour.	This will prevent increased development of incompatible residential uses within air operations areas.	Amend the comprehensive plan and MSB Title 17 (zoning code) as necessary.	MSB Planning Dept., Planning Commission, Assembly
6. *Consider noise attenuation in construction codes*	When construction codes are proposed, the MSB would consider proper standards related to noise attenuation.	Ensure that new construction within the 65 DNL contour has the recommended noise level reductions.	Include language in future building codes related to 65 DNL contour. Note: Many current weatherization measures such as double pane windows and good insulation will meet noise attenuation needs.	MSB Planning Dept., Planning Commission, Assembly
7. *Continue Noise Complaint Management Process*	The military would continue the Noise Complaint Management Process handled through the military's Public Affairs Offices (PAOs).	This process would continue to operate and would allow for feedback from civilians on noise issues to assist with minimizing conflicts.	Continue the existing noise management process. Strengthen it by disseminating the process and the PAO phone numbers more widely.	Alaska Army and Air National Guard PAO Offices

Proposed Tool	Definition	Purpose/Intent	Action Steps	Implementation Responsibility
Noise (Continued)				
8. *Post local military noise contour maps and related information on the web and publish in local papers*	The military would continue to make the AICUZ and the Installation Environmental Noise Management Plan and related maps available on publicly accessible website(s).	Acts as a resource for individuals considering purchase of land in the impacted area.	At the beginning of the spring, the military would publish a summary of noise related information in the local newspapers. It would include information about current and proposed changes to operations that might impact noise generation.	Elmendorf AFB PAO Office
9. *Maintain up-to-date noise contours in GIS*	The military would maintain up-to-date noise contours.	Assist in the review of air operations and major flight paths for conflicts with existing residences. Acts as a resource for individuals considering purchase of land in the impacted area.	Maintain noise contours in the GIS database. Publish this information.	Elmendorf AFB GIS office
10. *Avoid flying low over residential areas to the maximum extent practicable*	To the maximum extent practicable, the military would avoid flying low over residential areas.	To minimize noise related conflicts.	The military would review flight operations and civilian land use patterns on an ongoing basis and avoid flying low over residential areas. Maintain a database of noise-related complaints, and incorporate that information into operations review.	Elmendorf AFB, Alaska Air National Guard, Army National Guard and DMVA office
Airspace Conflicts				
1. *Coordinate with the Alaska Air Carriers Association and other applicable groups about potential air use conflicts*	The military would coordinate with user groups about any potential air use conflicts such as fly-in breakfast and other similar events.	Inform military of potential airspace conflicts to adjust training schedules as needed.	Send military PAOs information on events and schedule well in advance.	Military, local aviation groups
2. *Continue to provide and expand information given to civilian pilots on military air use policies*	The military would periodically provide civilian pilots and the public with information on military fly zones, times, and procedures.	Raise awareness of civilian pilots and the public on location and timing of military activity to avoid airspace conflicts.	Continue to provide information through existing ACMAC meetings and distribution of the MACA pamphlet. Provide info to each of the airport managers located in the study area and distribute MACA pamphlet to Big Lake, Glacier View and Point MacKenzie Community Councils.	Elmendorf AFB 611 AOC and 3WG Safety office
3. *Continue to add locations of incompatible flight areas in the 11th Air Force Handbook*	The military would collect data from civilians concerned about military operations and avoid flying low over these locations.	Help to reduce noise complaints.	Review all civilian complaints regarding military operations and, if appropriate, add to the 11th Air Force Handbook	Elmendorf AFB, Alaska Air National Guard, Army National Guard and DMVA office

Proposed Tool	Definition	Purpose/Intent	Action Steps	Implementation Responsibility
Land Use Compatibility				
1. *Incorporate AICUZ policies into local comprehensive plans and zoning guidelines*	The MSB would use overlay maps of the 65 DNL noise contours, APZs and Air Force Land Use Compatibility Guidelines when developing comprehensive plans and zoning codes.	Informs public about location of noise contours. Promotes compatible land use.	Modify, where appropriate, comprehensive plans and any existing or proposed zoning ordinances and subdivision regulations.	MSB Planning, Point MacKenzie Community Council
2. *Raise awareness of the Planning Commission and Platting Board on impacts of land use decisions on military installations*	The MSB would invite military representatives to participate in Planning and Platting Board meetings in order to understand the impacts of their land use decisions on the military and be able to make more fully informed decisions.	This will help to raise the awareness of MSB Planning Commission and Platting Board members on impacts of their land use decisions to the military installations so they can make more fully-informed decisions.	Invite military representatives to the MSB Planning and Platting Boards on an as-needed basis to serve as two-way communicators on land use and training issues.	MSB Planning Commission, Elmendorf AFB, Alaska Army and Air National Guard PAO Offices
3. *Consider identification and acquisition of land that may be needed to protect military operations from encroachment*	The military would conduct an internal review to determine if there is a need to purchase or otherwise obtain ownership to lands that may be needed in the future to prevent encroachment that represents a threat to military operations.	This would remove key land use conflicts. A potential candidate might be drop and landing zones.	Identify areas of potential incompatible land uses. Review future growth plans and the current land uses.	Elmendorf AFB, Alaska Air and Army National Guard
4. *Conduct meetings with Military and Alaska State officials and Military and MSB to discuss land sales within training areas*	The military and State Department of Natural Resources Commissioners and military and MSB officials would consider mitigation options to reduce land use conflicts between training missions and state and MSB land development.	This would allow discussion of potential land use conflicts and possible mitigation actions such as prioritizing land sales to avoid those near existing landing zones or relocation of landing zones.	Invite Commissioners of the Alaska Department of Military and Veterans Affairs and DNR and Elmendorf AFB personnel to discuss potential conflicts. A separate meeting would be held between military and MSB officials.	Elmendorf AFB, Commissioners of DMVA and DNR, MSB Land Department
Communication				
1. *Conduct meetings with community leaders for informal information sharing*	The MSB and the military would maintain regularly scheduled meetings to informally and candidly share mutually beneficial civilian community and military information.	This would help to ensure ongoing sharing of information about changes in military operations and MSB actions that might affect military operations.	Invite key community leaders and military representatives. Establish regular meeting times. Communicate decisions with the public.	MSB Manager, Elmendorf AFB, Alaska Army and Air National Guard and DMVA staff
2. *Provide public with updated information*	The military would provide public with information for submitting noise complaints and information for civilian pilots.	Help keep the public up to date with military noise complaint procedures and training activities.	Develop and send out mailers. Post information bulletins. Develop and maintain a webpage.	Elmendorf AFB and Alaska Army and Air National Guard PAO Offices
3. *Coordinate training schedules*	The military would work with local airport pilot groups in the study area to communicate flight schedules.	This would help to minimize the impacts of military flying activities on civilian recreational flying.	Contact appropriate airport managers. Coordinate with them about military flight schedules.	Elmendorf AFB and Alaska Army and Air National Guard PAO Offices

Proposed Tool	Definition	Purpose/Intent	Action Steps	Implementation Responsibility
Communication (Continued)				
4. *Strengthen public outreach efforts and communication of significant operational changes*	The military would provide at least three days notice to the public for noise generated by unusual flight patterns or training operations, atypical use of munitions, convoys and atypical or new use of areas.	Reduce civilian air traffic during military training operations.	Have PAOs disseminate appropriate information to public through multimedia options such as radio, television, newspaper and post-event notifications. Allow three days notice before noise-generating event.	Elmendorf AFB and Alaska Army and Air National Guard PAO Offices, MSB multimedia outlets
5. *Contact the Alaska Civilian Military Aviation Council*	The MSB would interact with the Alaska Civilian Military Aviation Council	Ensure another forum for information exchange between the military and the MSB Aviation Advisory Board.	Assign staff to obtain information on meeting dates and agendas and provide feedback if there are any MSB concerns, or inform the committee of MSB actions.	Military
6. *Provide public with information on Landing Zones (LZs) and Drop Zones (DZs)*	The military would provide the public with notification of existing landing and drop zones.	Will reduce improper future development in incompatible land use locations. Increase owner's awareness of land use.	Get the coordinates for each of the LZs and DZs on the GIS database. Send a letter to owners of the land explaining the significance of the LZs and DZs (this would be done with input from military). If land owner ever subdivides and files a plat, a note would be required that explains the LZs and DZs.	Elmendorf AFB and Alaska Army and Air National Guard PAO Offices

Appendix A – Interview/Meeting Reports

Meeting Interview

Project: Mat-Su Joint Land Use Study

Interviewed: Art Scates, former Port Commission Chairman

Date/Time: 7/22/08 3:30 pm

Phone: (907)373-3058

Reporter: Diana Rigg, WHPacific

Email:

Interview Summary: Mr. Scates is a homesteader. He has lived on Point MacKenzie Road for 20 years. He is very accommodating of the military activity and does not consider the noise a bother. Below is a summary of his comments.

- Ms. Scates has no issue with land use compatibility.
- He has no suggestions for efforts to control noise conflicts. The pattern for Elmendorf is pretty set with the conflicts between the base and Anchorage International Airport.
- People should be informed. Mr. Scates is most interested in the Port lands and residential can't be built there. However, Anchorage 2020 said the Anchorage International Airport was going to move to the agriculture lands and that is a big conflict. That would also be an added conflict with Elmendorf.
- Mr. Scates agrees with Mr. Wendt: Even if flight pattern is changed, the noise will still be there so the boundary of the study area isn't an issue.
- Mr. Scates does not think there is too much noise.

Meeting Interview

Project: MSB Joint Land Use Study

Interviewed: Col. Doehl, Air National Guard

Date/Time: 7/23/08 10:00 pm

Phone: (907)249-1264

Reporter: Diana Rigg, WHPacific

Email: Robert>doehl@akangh.ang.af.mil

Interview Summary: Col. Doehl is a long time resident of Alaska and a full time member of the Guard. Below is a summary of his comments.

- Col. Doehl is concerned about the search and rescue mission of the Guard and the occurrence of false emergency calls – they are increasing in the MSB. He believes the low - level routes established so far are compatible with existing land use.
- They have a process for noise complaints and map them.
- They are supposed to get more C-130 air craft – a 50% increase in traffic. They are not getting any additional HC-130 aircraft and no new drop zones.
- Pilots generally stay within their operation areas. The FAA deals with pilots who stray.

Meeting Interview

Project: MSB Joint Land Use Study

Interviewed: Col. Joe Streff, Army National Guard State Aviation Officer

Date/Time: 8/25/08 1:00 pm

Phone: (907) 428-6331

Reporter: Diana Rigg, WHPacific

Email: joseph.streff@us.army.mil

- There are compatibility issues between the air portion of the army guard and the MSB. The Borough has grown up around the military installation. They try to fly friendly but helicopters and small fixed wing aircraft fly low and are noisy. There is no real pattern for their flights, but they try to vary time of day and location so no one area is always impacted. Of special importance to them is Training Area 4 – this area is critical to their mission.

- Generally, the army follows FAA rules; they have their SOP's, army and guard regulations. Mostly the impacts are from the Borough "growing up" around what was unrestricted training.

- The guard does not have any public education/outreach with the valley.

- There are current noise complaint procedures.

- The MSB residents are pretty military friendly – again they don't fly the same path all the time to keep impacts to a minimum.

- The boundary that is critical to the guard is from Point MacKenzie to Big Lake to Beluga Mountain, to Tyonek and along the coast to Point Mac. This is the critical training area they cannot afford to lose. They do not really fly that much east of Big Lake.

GENERAL COMMENTS

It is most important to the guard to preserve operations areas.

Meeting Interview

Project: MSB Joint Land Use Study

Interviewed: Dave Charlton , FCC

Date/Time: 8/25/08 1:30 pm

Phone: (907) 271-6342

Reporter: Diana Rigg, WHPacific

Email: David.Charlton@fcc.gov

- Originally contacted Robert Van Haastart at FAA to find out if he had a local contact. The local contact, David Charlton, called today. I explained the contract/project and the comment about the Port at Point MacKenzie and the elephant ear on Elmendorf.
- He explained that they don't regulate another federal agency. They will assist, if asked, in studying some problem or other, but do not regulate.
- The elephant ear is a listening post for the military and is subject to vibration interference.

Meeting Interview

Project: MSB Joint Land Use Study

Interviewed: Jeff Wendt, Pt. MacKenzie Store Owner

Date/Time: 7/22/08 4:15 pm

Phone: (907)373-0931

Reporter: Diana Rigg, WHPacific

Email:

Interview Summary: Mr. Wendt is retired from the Air Force and he understands that the air space is constrained, but is still bothered by night flights over his property. Below is a summary of his comments.

- He is aware of the over flights and that there are homesteaders in the area that are concerned about noise.
- Air Traffic Control could help control conflicts, however if they don't fly in this area, they'll be flying somewhere else, affecting someone else. A ceiling limitation should be looked at.
- Nothing is likely to change no matter the complaints.
- The boundary is tough. Even if a flight pattern is changed, the noise will still be there.
- An 800 number might help, but that is an extra layer of government and who would be responsible. An 800 number only goes so far.
- The training areas are pretty much set, it is the traffic getting to them and from them that is causing the noise.

Meeting Interview

Project: MSB Joint Land Use Study

Interviewed: Joe Meehan, ADF&G

Date/Time: 7/10/08 2:00 pm

Phone: (907)267-2281

Reporter: Nicole McCullough, WHPacific

Email: Joe.Meehan@alaska.gov

Interview Summary: Joe Meehan and Mark Fink, Alaska Department of Fish and Game manage the state refuges in the Mat-Su.

- Joe was not aware of any issues with regards to military operations in relation to the refuges.
- The only potential issue that ADF&G could see would be if there was an increase in low lying aircraft over the Refuges, particularly during the bird migration and nesting periods. At that time, 10's of thousands of birds are in the area. At other time, there are fewer birds but it could still be an issue but to a lesser degree. Military ground operations or landing aircraft in the Refuges could also pose a problem.
- In the Susitna Flats SGR, ADF&G prohibits landings/takeoffs from April 1 to May 15 in the high-density spring waterfowl staging area (which is primarily in the coastal marsh area of the refuge). Mark should be able to provide a map.
- Aircraft are prohibited from landing anywhere in the Palmer Hay Flats SGR from April 1 to November 9.
- ADF&G does not have aircraft prohibitions in the other Mat-Su refuges (Goose Bay SGR and Willow Mt. Critical Habitat Area); however, no activity should be conducted (in or out of a refuge) that significantly disturbs any wildlife.
- Additionally, the FAA carries flight advisories for some of the state refuges, but they are not specified on the FAA website.
- The landing of a helicopter in any refuge requires a permit.
- ADF&G does not have any formal contacts at the installations. If the refuge manager were to have a problem with disruption from low lying aircraft with the National Guard, EAB or Fort Richardson, the refuge manager would have to look up the number in the phone book and try and figure out who to talk to.

Meeting Interview

Project: Mat-Su Joint Land Use Study

Interviewed: John Duffy, Mat-Su Manager

Date/Time: 7/09/08 10:00 am

Phone: (907)745-9689

Reporter: Nicole McCullough, WHPacific

Email: John.Duffy@matsu.gov

Interview Summary: John Duffy said that one of the main reasons for doing the study was to try to minimize future problems since there are few conflicts now. Some of the known issues include the following:

- Upcoming development at Point MacKenzie – It is anticipated that the port development, construction of the prison and operation of the ferry at Point MacKenzie will result in increased residential development. Since the military has frequent flights in this area, it could cause noise or other conflicts without proper planning.

- Lights – Future lighting at the Port could also impact military night time flights; but with a proper lighting ordinance, he felt this could be resolved.

- Air Operation Conflicts – There are also concerns with paratrooper drop zones and flight patterns with military traffic crossing the southern core area of the Borough. Since the C-130 or similar aircraft fly low over the drop zone, it interferes with small private airfield operations in the area.

- Recreational conflicts – The Nelchina Plateau is increasing in popularity as a destination for backpackers. There are intermittent complaints from these users of low flying military aircraft.

- Formerly Used Defense Sites – The Borough is actively involved in evaluating Formerly Used Defense Sites (FUDs) and unexploded ordinances (UXO) in the Borough. This has potential for conflicts. It is being addressed by a separate committee with EPA. There is a NIKE site in the area also.

- Communication – Currently John meets with the Commander about twice a year to discuss Borough issues and keep the Commander up to date. He tells the Commander about things such as the demonstration ferry and developments at the Port. There is no formal committee to discuss Military/Borough issues.

- Noise Complaint Procedures – The code compliance staff at the Borough handles noise complaints about military aircraft; they do not refer these complaints to the military. They aren't sure who to contact.

John also discussed other items of significance to the study.

- Study area boundary – The size of the study area may be an issue. The Borough would probably like the study area to be larger than the military would like.

- Zoning – The Borough is moving towards use of mixed or flex zoning. A noise overlay zone is an option that would require property buyers to sign a document stating they are aware they are in high noise area. The current noise ordinance does not address aircraft noise, just events like rock concerts. They are currently working on a lighting ordinance.

- Transportation – The Borough is about to complete their Regional Airport Plan. They are planning a railroad spur to the Port. They are considering van pools for residents, including military residents. They have a transportation model that is available from the Planning Division at the Borough. Brad Sworts is the person at the Borough to contact for a copy or more information about transportation.

- Economic Impacts – The Borough does not have reliable statistics about how the military impacts the Borough's economy. The studies which Neil Fried, Economist, State Department of Labor lumped the Borough in with Anchorage. He thought it might be good to get a MSB specific military economic study done by ISER.

- Land Uses – There are two State Game Refuges and many farms in area. The farms must remain farms unless the legislature allows a change.

- Interviews – Other potential contacts would be the Point MacKenzie Community Council President, Fish and Game, Store Owner at Point MacKenzie (Point MacKenzie Road) and Art Scates, former Port Commissioner. John thinks that the Borough, not the Municipalities, should be the decision makers on the MSB JLUS.

Meeting Interview

Project: Mat-Su Joint Land Use Study

Interviewed: Neil Fried, ADOL

Date/Time: 7/9/08 1:00 pm

Phone: (907) 269-4861

Reporter: Nicole McCullough, WHPacific

Email: Neil.Fried@alaska.gov

Interview Summary: Neil Fried is the Alaska Department of Labor and Workforce Development, Economist. He provided the following information:

- The state has only looked at the military impacts on Anchorage, but not the Mat-Su although they really are considered by the department as just one region.
- The military has not provided the information that would indicate how many of the soldiers, civilian federal employees, and contactors work on the installations, but live in the Mat-Su Valley. That would be the largest impact.
- Neil said that he suspects the Military economic impacts in Mat-Su are significant. He also was sure there are contactors and other businesses that are Valley based, but works for the military.
- Neil suggested looking at the following documents: http://labor.state.ak.us/trends/jun07.pdf Matsu trends

  http://labor.state.ak.us/trends/jun06.pdf military impacts

Meeting Interview

Project: Mat-Su Joint Land Use Study

Interviewed: Sr. Airmen Denise Treadwell

Date/Time: 9/5/09 11:40 pm

Phone: (907)552-8151

Reporter: Nicole McCullough, WHPacific

Email:

Interview Summary:

I asked about sonic boom complaints due to the F-22's in the Mat Su Borough. Sr. Airmen Treadwell looked up the complaint log and said that most complaints are from areas within the Anchorage area, and very few are generated from the Mat Su area. None of those within Mat-Su are due to sonic booms.

Meeting Interview

Project: Mat-Su Joint Land Use Study

Interviewed: Capt. Robert Hughes, Elmendorf AFB, 3WG

Date/Time: 8/27/09 1:00 pm

Phone: (907)552-7543

Reporter: Nicole McCullough, WHPacific

Email:joseph.streff@us.army.mil

Interview Summary: Capt Robert Hughes, 3WG had the following comments:

- The Mid-Air Collision Avoidance (MACA) Pamphlet is produced by 3 WG Safety office every time there is an operational change.
- The MACA is distributed to the Anchorage Tower, Merrill Field and airport managers at some of the smaller fields in the area like Birchwood.
- The MACA is not distributed to the community councils (like Glacier View), but they could get on the mailing list and could receive it.

Meeting Interview

Project: Mat-Su Joint Land Use Study

Interviewed: Mr. Crowe, Elmendorf AFB, 611 AOC

Date/Time: 8/27/09 1:00 pm

Phone: (907)552-7543

Reporter: Nicole McCullough, WHPacific

Email:joseph.streff@us.army.mil

Interview Summary: John Crowe, 611 Air and Space Operations Center had the following comments:

- The Alaska Civilian/Military Aviation Council (ACMAC) meets twice a year (spring and fall) to discuss military airspace issues.
- Prior to the ACMAC meetings they have a sub-ACMAC meeting with key players like FAA and Flight Service Station. They discuss the issues and set the agenda for the ACMAC meetings.
- The ACMAC meeting participations is widespread and includes groups like AOPA.

Public Meeting – Point MacKenzie

Project: *Mat-Su Joint Land Use Study* ***Date/Time:*** *8/11/08 6:00 – 8:00 pm*

Location: *Settler's Inn Restaurant* ***Reporter:*** *Nicole McCullough, WHPacific*

Participants:

Emerson Krueger, MSB PM
Lauren Kruer, MSB
Nicole McCullough, WHPacific
William Bruu, MSB Planning Commission

Art Scates
Boots Scates
Colonel Doehl, AK Air National Guard
Major Deb Blanchard, AK Army National Guard

Meeting Summary: The meeting began with an open house and participants reviewed the display boards, which included information about the following:

- Scope
- Schedule
- Goals
- Issues
- Study Area Maps
- Contacts

Because of the small group, Emerson Krueger, Matanuska-Susitna Borough project manager, invited everyone to sit around a table to informally discuss the MSB JLUS. He opened with a general discussion about the purpose of the plan, what the known issues were and potential outcomes of the study.

Noise - Art did not think the noise was significant and he had not heard of anyone complaining. Boots agreed.

Colonel Doehl said that it is very important to be able to complete training missions in the study area, particularly the landing zones at Point MacKenzie. He had not heard of any problems with noise complaints related to this area.

Emerson said that he learned that animals, such as caribou, are not impacted by aircraft noise. Colonel Doehl said that in his experience, unless the aircraft was flying very low, animals do not pay attention to the noise.

Bill brought up the topic of trying to get a note added to plats in areas that might have noise impacts from military aircraft noise. In particular, the group discussed the likely influx of new residential

areas in the Point MacKenzie area with the new correctional facility and other port development. Bill said that Title 27 did not allow plat notes. Emerson agreed that this was a problem, but thought it could be worked on. Lauren agreed that a recommendation could be made.

Lauren said that the Big Lake Plan may need to add information about military aircraft noise.

Lighting - There was a discussion of the lights at the Correctional Facility. Borough planners are aware of the potential interference with aircraft if the lights are bright and are not directional. Colonel Doehl said that with technology today, the lighting issue can be minimized and it is more manageable than it used to be.

*Private Airfield co*nflicts – Colonel Doehl said that the military tries to avoid busy private airports. Art asked if there were any height restrictions. Bill described the approach paths. Colonel Doehl described FAA separation and airspace restrictions.

Communications - Bill said he would like to see someone on the committee that was involved in communication. There was discussion about contacting someone from FCC to get involved. Colonel Doehl said they work with FCC and he would let his communication people know about the MSB JLUS. Art agreed and said that if big industries move into the port area, this could have an important communication impact.

Nelchina Plateau Recreation Impacts – There was discussion about the recreational impacts that might occur around Nelchina Plateau. In particular, there was at least one complaint from someone backpacking in the area about low flying aircraft. Colonel Doehl said the only time they really fly in this area is when they are rescuing someone, usually a 4-wheeler or snowmachiner that has gotten into an accident. This happens about once a week. More than 90% of the time it is because an emergency locator beacon accidentally went off.

Miscellaneous – Lauren said that it is very important to maintain open communication with the military.

Art said that he thinks the port at Point MacKenzie and the military complement each other. Emerson said that the Port has fewer restrictions on what kind of cargo they can accept and even ammunitions are allowed. This could benefit the military. Colonel Doehl said Styrker vehicles could also pass through the port and could be put on the railroad north to Fort Wainwright.

There was discussion about where to have the next meeting. Emerson suggested Big Lake as a location for the next meeting. Art and Bill agreed.

Public Meeting -Willow

Project: *Mat-Su Joint Land Use Study*

Date/Time: *8/12/08 6:00 – 8:00 pm*

Location: *Willow Community Center*

Reporter: *Nicole McCullough, WHPacific*

Participants:

Emerson Krueger, MSB PM
Nicole McCullough, WHPacific
Colonel Doehl, Alaska Air National Guard
Norman Wakeman, Willow Community Council

Meeting Summary**:** Emerson provided a brief review of the purpose of the MSB JLUS and possible outcomes. He asked Norman if there were any questions about the study. Norman said that he did not have a problem with the noise and had not heard anyone complain. He asked about the old airstrip in Willow and wondered if it were upgraded if it would be of use to the military. Colonel Doehl thought it probably would be of limited use.

Nicole asked Colonel Doehl about the impact of Operation Red Flag in the study area. He stated that most of the impacts are north of the Alaska range and that the biggest impact is probably to civilian aircraft. He said that the Pave Hawks will probably be replaced within about 12 years.

Emerson asked Norman if he would support holding the next MSB JLUS open house in conjunction with a Willow Area Community Council meeting. Norman thought that would be a good idea.

Public Meeting - Glacier View

Project: *Mat-Su Joint Land Use Study* ***Date/Time:*** *8/14/08 6:00 – 8:00 pm*

Location: *Glacier View Bible Church* ***Reporter:*** *Nicole McCullough, WHPacific*

Participants:

Nicole McCullough, WHPacific
Rick Brenden
Mario and Mary Cerami
Willena Brenden
Neil and Barbara Swenson
Rex Close
Garry Wolske
Margaret Wolske
Henry E. Farrar

Meeting Summary**:** Emerson began with a brief summary of the project and Nicole talked about the purpose of the project and the scope of work. The issues were discussed.

Communication/ Airspace Conflicts – There was concern about communication between military and civilian aircraft in the area, in particular, low flying C130s. Rick said the local frequency of 122.9 should be monitored by the military to avoid potential conflicts. Someone stated they knew of an instance when a military aircraft flew under someone trying to land. Someone stated that the military pilots that fly in the area should receive a packet of information about specific requirements about flying in the area. Rick said that he cannot find the assigned frequency for Matanuska Glacier.

Noise – The military practices refueling over the Matanuska Glacier. This doesn't seem to be a problem. It is a concern sometimes when there are low flights over the houses. They can make things rattle.

Wildlife Conflicts – There was discussion about possible impacts to wildlife from military aircraft. The general consensus was that civilian aircraft probably are more of a concern. Calving season was probably the most critical time and consideration to avoid that time would be essential. There is a raptor viewing area on Sheep Mountain, but that is probably not a conflict.

Miscellaneous – There is a great influx of air traffic during hunting session, almost non-stop.

Rick suggested that the real estate agents disclose when land is near potential military operations.

Backpackers – Nicole raised the question if they hear of any backpackers complain about the noise. Generally the residents did not think that was an issue. A bigger issue is trespass by the backpackers.

Public Meeting - Big Lake

Project: *Mat-Su Joint Land Use Study* ***Date/Time:*** *1/14/09 7:00 – 8:00 pm*

Location: *Bud Beech Public Safety Building, Big Lake* ***Reporter:*** *Nicole McCullough, WHPacific*

Participants:

Nicole McCullough, WHPacific
Bill O'Hara, Big Lake Community Council President
Terry Archibald, Big Lake CC Secretary
(See sign in sheet)

Meeting Summary: In addition to the Council members, there were about 35 participants at this meeting. Bill O'Hara, President of the Big Lake Community Council introduced Nicole McCullough who distributed a pamphlet with general information about the MSB JLUS. She then made a brief presentation and opened up the floor for questions. During the presentation, display boards were used which included information about the following:

- Scope
- Schedule
- Goals
- Issues
- Interview Results
- Maps - Study Area, Noise Contours, Land Use
- Potential Resolutions – Noise, Airspace Conflicts, Land Use Compatibility, Communication
- Contacts

Following is a synopsis of the comments and questions raised at the meeting.

Comprehensive Plan Coordination - There was a comment that they are in the process of completing the Big Lake Comprehensive Plan. It is almost done. That plan is being done by Agnew::Beck, and there is nothing in the plan about the military. Nicole said that the JLUS will likely recommend that the Comprehensive Plans within the study area include information about military operations that could impact each plan's jurisdiction.

JLUS Information – Someone wanted to know if this information is available on the website. Nicole said it was and also that Emerson's contact was on the pamphlet and he could also answer questions.

Noise - Someone commented that they grew up near Merrill Field, lived on 3rd Avenue, DeLong Lake, Government Hill and Campbell Lake. She stated that she had never lived anywhere as noisy as where she lives at Big Lake. She said that she can look at the stars and see 15 jets everywhere. She stated that they are transport planes flying in low

formation. She suggested that they fly more to the west where there is no residential development.

Bill O'Hara said that he loved seeing the military aircraft and that it is reminder to him that he is free. Someone else suggested that it might be better if they turned off earlier and not fly over the houses. Another comment was that they liked seeing the military aircraft, and she and her neighbors come out of their houses to take photos and are disappointed if they miss them.

Someone else stated that one of the reasons there is a lot of military and civilian air traffic is the location of the VOR. If the VOR were relocated, he believed the traffic [and thus the noise] would be reduced.

Someone else said that she had once had an issue about night flying. She called the base and they were very responsive and took care of it.

Anchorage JLUS Participation – Someone wondered if Anchorage was going to get involved in this JLUS process. Nicole stated that the Department of Defense invited them, but so far they did not want to get involved.

Next meeting – Nicole responded to a question about the public meetings. She said that this was part of the second round of meetings, and there would be one more round in a couple months once the recommendations were better defined. She said she would be happy to return and could try and bring the Public Affairs Officer and the FAA Military liaison. There was general agreement that this would be a good idea. Nicole will also provide the secretary of the Community Council with an electronic copy of the brochure and the link to the website.

Public Meeting – Glacier View

Project: *Mat-Su Joint Land Use Study*

Date/Time: *1/27/2009 6:00 – 8:00 pm*

Location: *Glacier View School*

Reporter: *Nicole McCullough, WHPacific*

Participants:

Emerson Krueger, MSB PM
Nicole McCullough, WHPacific
Paula Hansen, WHPacific
Rick Brenden
David P.
Willena Brenden
Nels Hitchcock
Rex Close
Kelly Stevenson
Cat Berkley
Ray Tomory

***Meeting Summary*:** Mr. Krueger spoke briefly regarding the Glacier View Comprehensive Plan. He reminded the Council that the Planning Department is looking for photographs of the Glacier View area to include in the plan; send any photos to Eileen Probasco. The Comp. Plan will be amended to exclude the Borough area north of Mile 118 (the Eureka area).

Ms. McCullough spoke regarding the Borough/Military Joint Land Use Study as a follow up to her presentation on August 27, 2008. During the presentation, display boards were used which included information about the following:

- Scope
- Schedule
- Goals
- Issues
- Interview Results
- Maps - Study Area, Noise Contours, Land Use
- Potential Resolutions – Noise, Airspace Conflicts, Land Use Compatibility, Communication
- Contacts

She stated that there will be another meeting in about April to present the recommendations and draft final document.

Following is a synopsis of the comments and questions raised at the meeting.

Safety – Rick Brenden commented that highways should be at least caution zones for safety reasons.

Noise – Rick Brenden also commented that in the spring time during calving seasons the herds will panic and run over the babies when they hear the planes. He also said that otherwise it's mostly not an issue with animals. Nicole mentioned that there is a study saying that the noise from the planes doesn't have much of an impact on the animals. Someone pointed out that

Sheep Mountain is a calving area for sheep; however Col. Daryl Peterson said the military does not generally fly over Sheep Mountain.

Military Operations – Col. Daryl Peterson mentioned that if you have a complaint, the military has a procedure for reporting the incident. The first person you would contact would be the Public Affairs Office at Alaska Guard. He also mentioned that they do not practice air refueling in the Glacier View area; however, there is the occasional situation that might come up where they would have to refuel an aircraft. There was also discussion about a low flying military aircraft the previous Sunday. This was not a complaint, but several people were curious what type of aircraft it was.