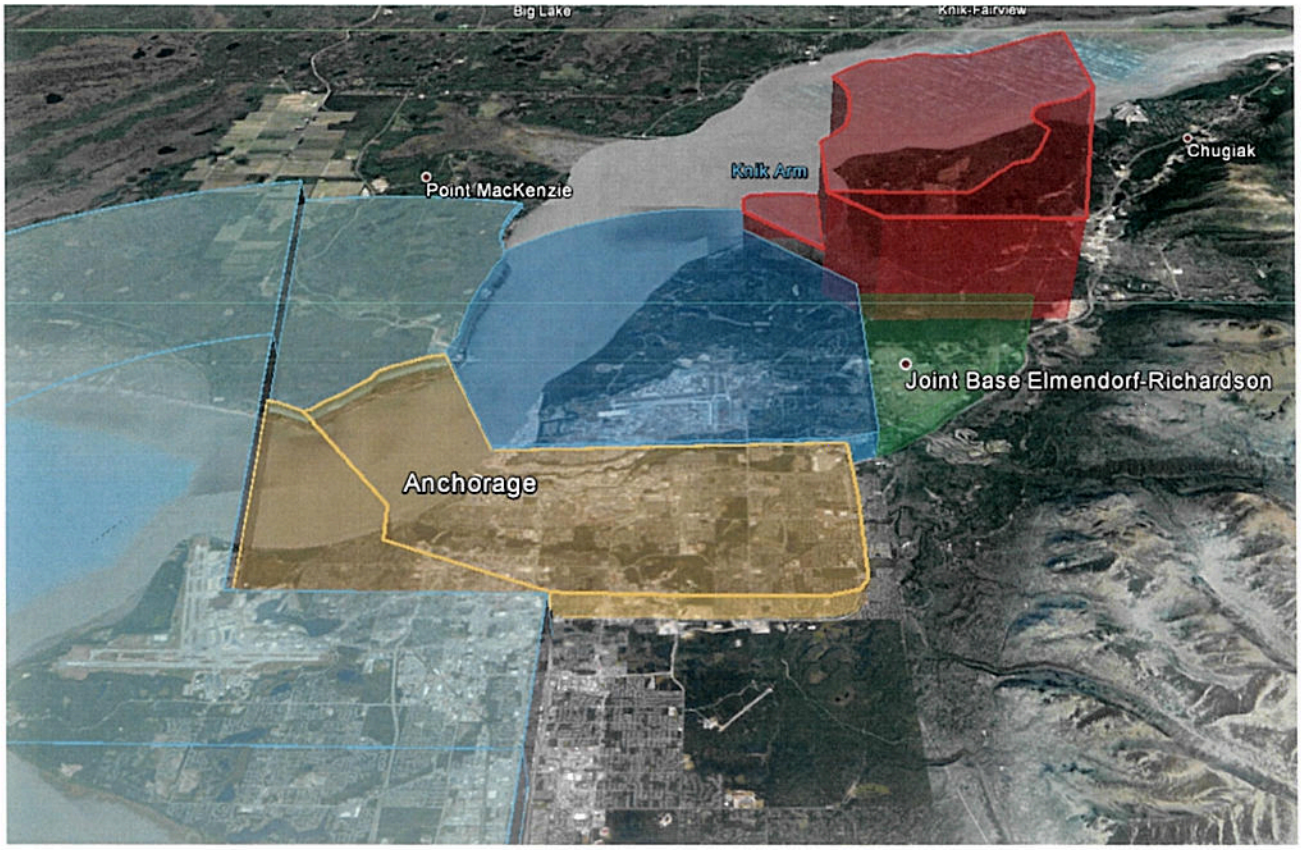
FAA
Western Service Center, Operations Support Group

SCOPING DOCUMENT

ANCHORAGE TERMINAL AREA

Anchorage, Alaska

November 28, 2017



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1. Background

The United States Air Force (USAF) 3rd Wing at Joint Base Elmendorf-Richardson (JBER) proposes to extend Runway 16/34 to the north by 2,500 feet, and would like to install an Instrument Landing System (ILS) and associated precision approach procedures to Runway 16 to improve operational efficiency, increase aircraft safety, and ensure JBER is postured to support emerging national security requirements. Federal Aviation Administration (FAA) Western Service Area (WSA), expressed concerns that the ILS approach to Runway 16 will negatively impact the current flow of aircraft within the Anchorage terminal area. The USAF requested the FAA perform an aeronautical study to determine whether the Anchorage terminal area can support a precision approach to Elmendorf Runway 16 and whether the safety and/or efficiency of the Anchorage terminal area would benefit from a redesign of the current airspace and procedures, including Part 93 Special Air Traffic Rules.

2. Assumptions

The USAF will complete an Environmental Impact Statement (EIS) related to the proposed extension of Runway 16/34, which would include an ILS to Runway 16.

3. Purpose of the Anchorage Terminal Area Airspace and Procedures Study (ATAAPS)

The purpose of the ATAAPS is to identify current operational issues, model future traffic based on anticipated aircraft throughput, determine if both Visual Flight Rules (VFR) and Instrument Flight Rules (IFR) procedures can be improved to increase capacity, and determine the funding requirements and resources needed to implement any recommendations.

4. Identified Boundaries

The boundaries of this study should encompass all of the routes and feeder routes for the Anchorage terminal area. A 60 nautical mile (NM) radius for the airspace study is recommended.

5. ATAAPS Scope

The ATAAPS will, at a minimum, review concerns in the following areas:

a. Identify existing issues/concerns voiced by the following facilities, groups, and available safety reports:

(1) Anchorage Air Route Traffic Control Center (ZAN)

(2) Anchorage Terminal Radar Approach Control (A11)

(3) Elmendorf Air Force Base (EDF)

(4) Ted Stevens Anchorage International Airport (ANC) Air Traffic Control Tower (ATCT)

(5) Merrill Air Traffic Control Tower (MRI Tower)

(6) Bryant Army Airfield (FRN)

(7) Kenai Municipal Airport (ENA)

(8) Other locations as appropriate

(9) Local user groups

(10) National user groups:

(a) Aircraft Owners and Pilots Association (AOPA)

(b) National Business Aviation Association (NBAA)

(11) Air Carrier and Air Taxi operators

(12) Communities that could be affected by procedure changes

(13) Alaskan Tribal representatives

(14) Palmer Municipal Airport (PAQ) parachute activity

(15) Review available safety data reports from FAA and USAF sources, such as:

(a) CEDAR – Comprehensive Electronic Data Analysis and Reporting

(b) ATSAP – Air Traffic Safety Action Program

(c) MOR – Mandatory Occurrence Report

(d) HATR – Hazardous Air Traffic Report

(e) ASRS – Aviation Safety Reporting System

(f) ASAP – Aviation/Airmen Safety Action Program

(g) MFOQA – Military Flight Operations Quality Assurance

b. Review current IFR and VFR operations within each affected air traffic facility.

(1) ZAN:

(a) Arrival and departure gate location and efficiency including a review of the dimensions of A11 airspace

(b) IFR feeds in various runway configurations

(c) Efficiency of Standard Terminal Arrival Routes (STARS) and Standard Instrument Departures (SIDS) at ANC, MRI, EDF, etc.

(d) IFR overflight routing

(e) Integration of proposed Runway 16 ILS at EDF

(f) EDF STAR and SID design

(2) A11:

(a) Arrival and departure gate location and efficiency including a review of the dimensions of A11 airspace

(b) Efficiency of STARS and SIDS at ANC, MRI, EDF etc.

(c) Modify Performance Based Navigation (PBN) approaches at ANC to avoid the EDF Runway 16/34 arrival and departure corridor

(d) Integration of proposed Runway 16 ILS at EDF:

1) EDF STAR and SID design

2) ILS 16 downwind, final, missed approach, and overhead traffic pattern integration with A11 traffic

3) Impact on VFR aircraft transitioning north of EDF

(e) Part 93 airspace design including published altitude and routing

(f) Sector load balance

(g) Airport approach and departure efficiency including missed approach procedures

(h) IFR over flight routing

(i) Expanding airspace to 60NM radius

(j) Inclusion of approach control services to Kenai (ENA) and Soldotna (SXQ) airports

(k) Possible expansion of ANC Class C airspace to protect ANC Runway 15 and Runway 7 finals

(3) EDF:

(a) Airport approach and departure efficiency including missed approach procedures

(b) Part 93 airspace design including published altitude and routing specifically subpart D as it affects arrivals and VFR traffic patterns to Runway 6

(c) Efficiency of increasing EDF Runway 16 operations

(d) Integration of proposed ILS Runway 16 with ANC traffic:

1) Range recovery routes

2) Impact on the various ANC traffic flows:

a) Departing Runways 33/7L/7R, landing Runways 7L/7R, including missed approaches

b) Departing and landing Runways 15/25L/25R, including missed approaches

3) Downwind integration with Runway 15/33 traffic

4) Missed approach integration with ANC traffic

5) Impact of a Runway 16 ILS to EDF Runway 34 opposite direction departures

(e) Impact of an ILS to Runway 16 to R-2203

(f) Impact of an ILS to Runway 16 to VFR flight paths and Part 93 airspace

(g) Impact of an ILS to Runway 16 to operations at MRI:

1) VFR and SVFR arrivals and departures

2) Part 93 airspace and published arrival and departure routes

(h) Coordination with MRI users, including but not limited to: AOPA, Alaska Airmen Association, and the Merrill Users Group

(i) Impact to operations at Six Mile Lake (AA06)

(4) ANC ATCT:

(a) Airport approach and departure efficiency including missed approach procedures

(b) Runway use programs

(c) Interaction with overflights and IFR, VFR and Special VFR (SVFR) operations at neighboring airports:

1) Merrill Field (MRI)

2) Lake Hood (LHD)

3) Campbell Lake (3C3)

(d) Part 93 airspace design including published altitude and routing

(5) LHD ATCT: Interaction with over flights and IFR, VFR and SVFR operations at neighboring airports:

(a) ANC

(b) MRI

(c) Campbell Lake (3C3)

(6) MRI:

(a) Part 93 airspace design including published altitude and routing

(b) Airport approach and departure efficiency including missed approach procedures

(c) VFR and SVFR altitudes and routing to include hospital heliports

(d) Interaction with proposed Runway 16 ILS at EDF

(e) Determine viability of developing Standard Instrument Departure Procedure(s)

(f) Cartee airspace usage

(7) ENA: Located approximately 45 miles south of the Anchorage VORTAC and 20 miles south of the ZAN/A11 boundary:

(a) Evaluate efficiency of approach control services into ENA between ZAN and A11

(b) Lower vectoring altitudes may be available through the use of Terminal Minimum Vectoring Altitude (MVA) charts versus the Minimum IFR Altitude (MIA) charts used by Anchorage ARTCC

(8) Bryant Army Airfield (FRN):

(a) Impact of the proposed ILS Runway 16 to FRN

(b) Use of restricted area R-2203 A/B/C to include traffic flows in and out, types of aircraft, origin and destination of aircraft using the area and a mission profile

(9) Part 93 airspace design to non-towered airports and seaplane bases including published altitude and routing.

Figure 1. Horizontal View of Anchorage Terminal Area FAR 93 Subpart D

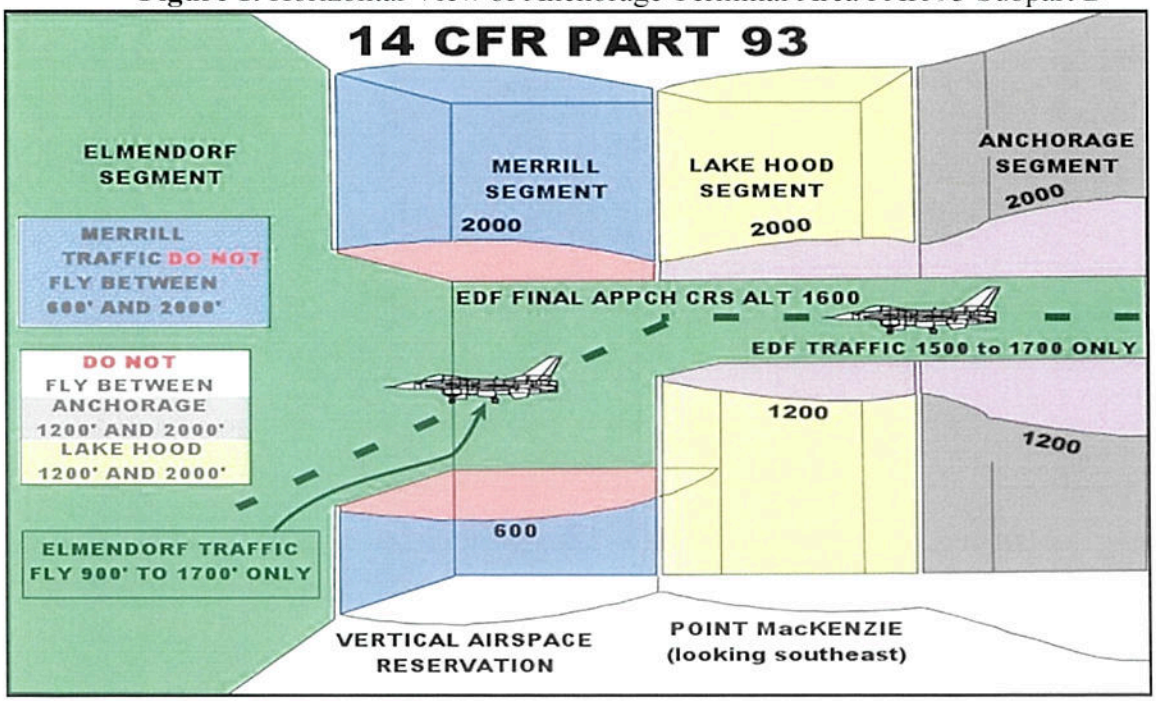
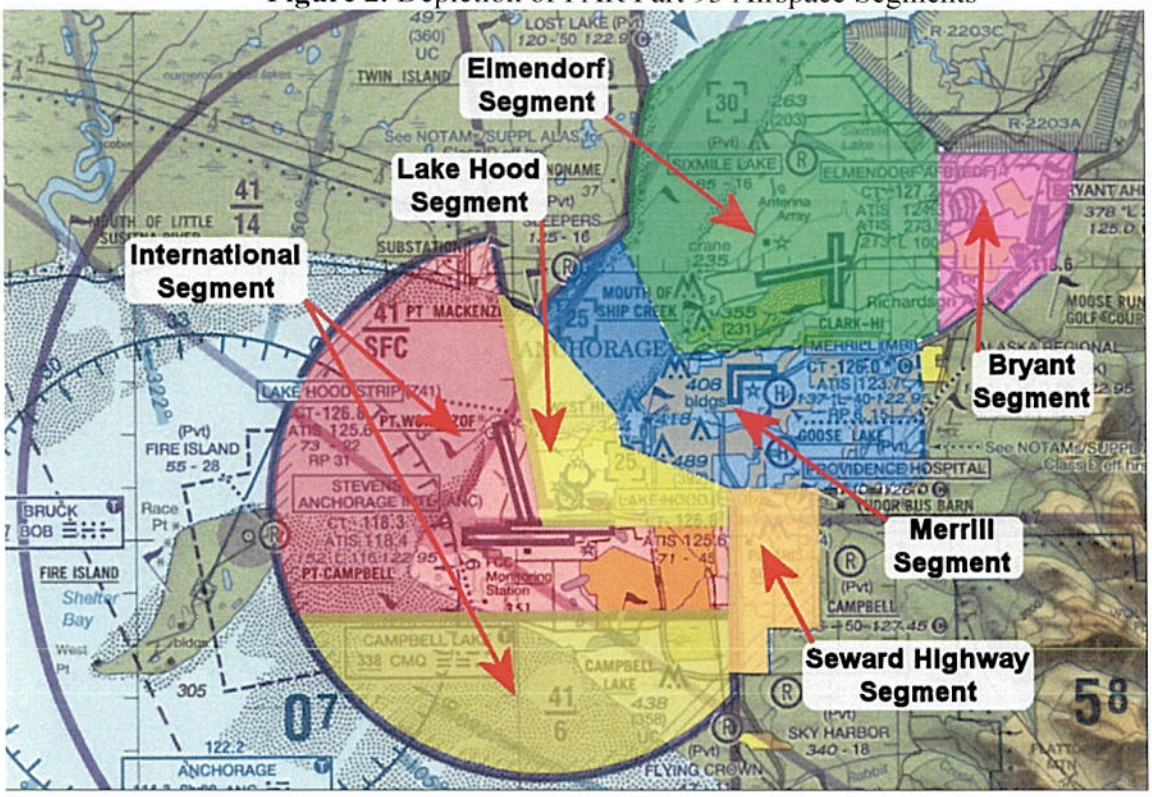


Figure 2. Depiction of FAR Part 93 Airspace Segments



6. Identified Existing Issues

a. Mountain View Neighborhood. Mountain View is a densely populated area south of Runway 16/34 that has voiced concerns about jet noise from JBER in the past.

b. Ted Stevens Anchorage International Airport Master Plan Update. Public Comment-Response reports 1 through 5 from September 2013 to December 2014 highlights numerous specific environmental concerns in the area.

7. Potential Impacts/Concerns

After the completion of the airspace study, if the Air Force and FAA determine to move forward with potential airspace changes, a comprehensive environmental study will be required. A list of potential concerns includes but are not limited to:

a. Environmental: See Appendix B for additional information:

(1) Known Wild Life Areas, Critical Habits (CH), Game Refuges, and other protected or sensitive areas

(2) Endangered and Threatened species

b. Community:

(1) Potentially affected schools (not all inclusive):

(a) Mountain View Elementary – south of Runway 16/34

(b) William Tyson Elementary – southwest of Mountain View Elementary

(c) Mount Spurr Elementary – south of Runway 06/24 and west of Runway 16/34

(d) Katmai CDC – south of far west end of Runway 06/24 and west of Runway 16/34

(e) Aurora Elementary

(f) Government Hill Elementary

(g) Mount Illiama Elementary

(h) Orion Elementary

(2) Potentially affected communities (not all inclusive):

(a) Municipality of Anchorage (primary area)

(b) Knik-Fairview

(c) Eagle River/Peters Creek/Chugiak/Wasilla/Palmer

(3) Tribal governments:

(a) Knik Tribe (Wasilla)

(b) Chickaloon Native Village (Chickaloon)

(c) Eklutna Native Village (Eklutna/Chugiak)

(d) Village of Salamatof – Kenai Peninsula

(e) Kenaitze Indian Tribe – Kenai Peninsula/Cook Inlet

(f) Native Village of Tyonek

NOTE: *Not all schools and communities are listed*

8. Community Involvement

The participants and audience for Community Involvement activities include FAA Alaskan Regional Administrator and Service Area (SA) representatives, USAF representatives, airport owner/operators, select officials, community groups, and the public. The Community involvement activities of each entity is defined and described in the following sections.

a. The FAA Alaskan Regional Administrator (RA), in collaboration with the Western Service Area Operations Support Group, Air Traffic Services and the 3rd Wing Commander (Commander) (or their respective designees), shall coordinate and cooperate together to prepare and execute a plan for Community Involvement (Plan) relating to this Scoping Document, and any resulting ATAAPS. Each party identified above shall be expected to participate in all Community Involvement activities. As the project proponent, the Commander shall provide a comprehensive communications strategy, which shall be acceptable to the FAA, that will form the basis for implementing the Plan. The Director of Air Traffic Operations, Western Service Center Director, and the Commander shall, respectively, provide Air Traffic Services, SA, and USAF subject matter expertise, as appropriate, for each Community Involvement activity involving interaction with the public.

b. Airport owner/operators: Airport owner/operators are key stakeholders in the Community Involvement process as they serve as the face of aviation to the community and should possess the most complete picture of existing environmental sensitivities.

   (1) The Western Service Area, Operations Support Group will coordinate with the Alaska Department of Transportation (AKDOT) and FAA Airports District Office (ADO) to coordinate the involvement of airports within the study area and suggest the relevant points of contact among the airport staff.

   (2) The Airport Director/Manager or their designee will determine the appropriate level of airport staff representation depending on the project phase and size of the airport.

   (3) Airport owner/operators will be asked to provide:

      (a) Historical information on community environmental interests and sensitivities.

      (b) Existing noise abatement procedures and agreements.

(c) Any relevant Part 150 Studies, Airport Master Plans, community development plans, National Environmental Protection Agency documents, Environmental Protection Agency documents, or judicial orders and settlement agreements.

c. Select Officials: Community Involvement requires extensive coordination with officials who represent the communities at the Federal, State, Tribal, and local levels. These select officials help to facilitate the Community Involvement process by providing information and soliciting feedback on proposed changes. Early coordination with the proper select officials is essential to understanding the communities' concerns.

d. Community Groups: Community Involvement activities should include any established community groups with a displayed interest in the environmental impacts of aviation. These groups may include, but are not limited to:

(1) Airport noise roundtables

(2) Regional planning groups

(3) Environmental groups

e. Public: The public includes any interested resident of the surrounding communities.

f. Communication Process: To ensure transparency and accountability throughout the process, a comprehensive communication strategy will be developed with the goal of reaching as many potentially affected residents as possible.

9. Identified Timelines

The approximate timeline for the ATAAPS is a minimum of six months. The ATAAPS should provide enough information to highlight potential project risks, measure potential risks against intended outcomes, and, if necessary, identify suitable alternatives. Community Involvement and customer inputs may occur simultaneously. A complete airspace analysis may take two years to complete and would require the establishment of a dedicated work group.

10. Identified funding and required resources to complete airspace and procedures/feasibility study.

Airspace Analysis/Feasibility Study Cost Estimate	
FAA Overtime	$200,000
Analysis Support	$150,000
Modeling Support	$150,000

Airspace Analysis/Feasibility Study Total Cost: $500,000

Additional Costs

1. Community Involvement - $575,000

2. Environmental Assessment – from $1,500,000 to $2,500,000

3. Environmental Impact Statement – from $3,500,000 to $5,000,000 (This includes funding for the Environmental Assessment)

NOTE: *Environmental costs would be incurred if at the conclusion of the airspace study the FAA and USAF decide to move forward with any analyzed action.*

Total costs range from $3.5 to $6.1 million for a full airspace analysis.

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APPENDIX A

Other Related Studies and References

Other Related Studies and References

May 2001, *Anchorage Area Airspace Study*.

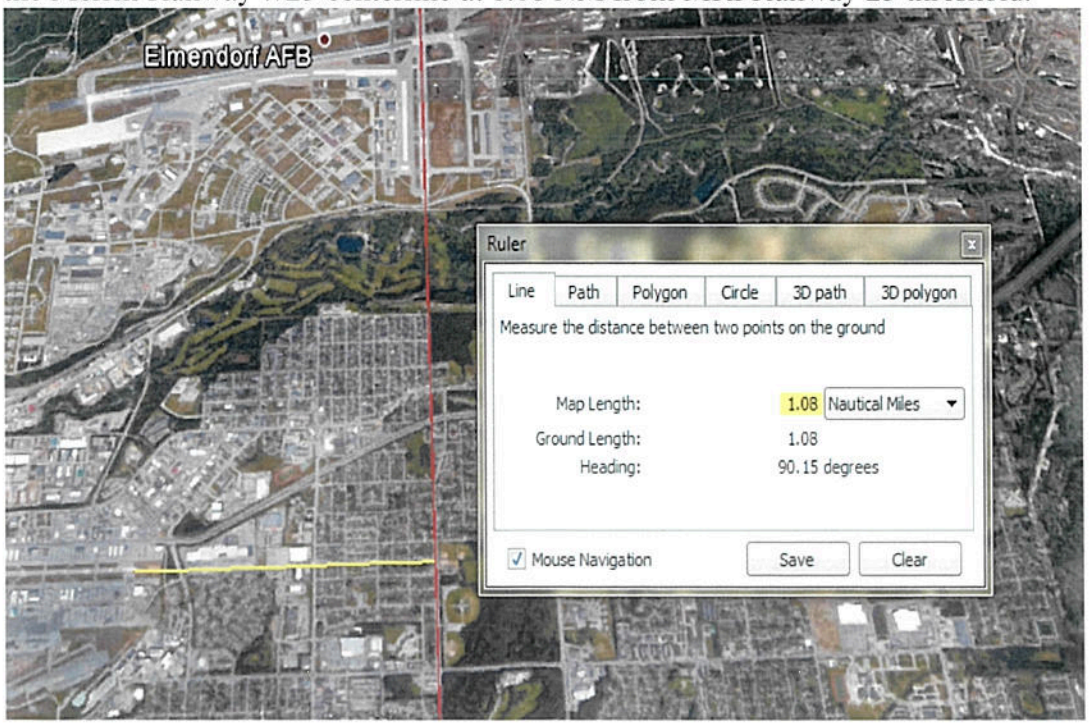
August 2008, *Alaska National Airspace System Review*, paragraph 4.2.4, *Interaction with Elmendorf AFB traffic*.

2015, Pacific Air Force, TERPS Evaluation, Elmendorf AFB ILS RWY 16 Proposal PowerPoint presentation.

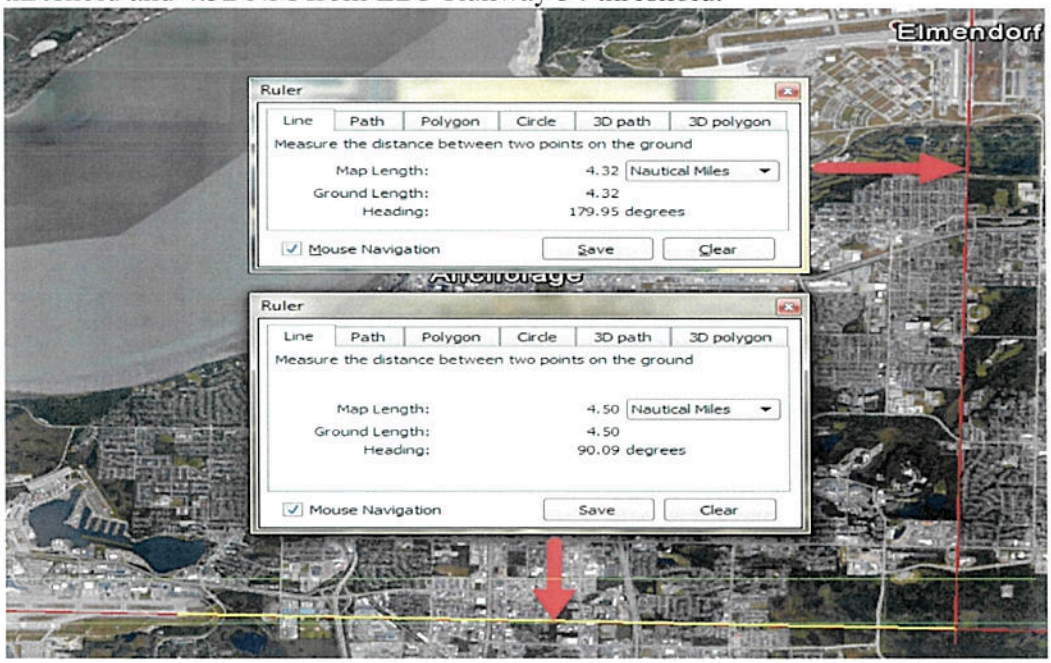
NOTE: *The studies listed above are not all inclusive. During the study the parties will collaborate to ensure all applicable studies and references are incorporated and evaluated.*

Reference Figure 1. In the image below, the EDF Runway 34 threshold is 0.92 NM from MRI's Class D airspace. The Class D has a top altitude of 2500' MSL.

Reference Figure 2. In the image below, the EDF extended runway centerline intersects the Merrill Runway 7/25 centerline at 1.08 NM from MRI Runway 25 threshold.



Reference Figure 3. In the image below, the EDF extended runway centerline intersects the ANC Runway 7L/25R extended centerline at 4.5 NM from ANC Runway 25R threshold and 4.32 NM from EDF Runway 34 threshold.



Reference Figure 4. The close proximity of these runway intersections may pose a significant challenge to protecting an ILS missed approach for Runway 16 at EDF. In the image below, the ILS missed approach evaluation area overlaps the Runway 7L/7R departure procedure. Additionally, the evaluation area is just west of the start of the mountains.