

MISSION - HISTORY - ECONOMIC IMPACT

EIELSON AIR FORCE BASE • ALASKA

Mission

Eielson Air Force Base (AFB) is the home of the 354th Fighter Wing and the 168th Wing of the Alaska Air National Guard. These units represent the majority of the flying mission at Eielson AFB, though the installation has several other tenants. In addition to the based tenants and missions, Eielson AFB hosts many training exercises, such as Red Flag Alaska and Arctic Defender, making it an integral part of ensuring the Air Force and its partners are best prepared to execute their individual missions in a coordinated and efficient manner.



Location

Eielson AFB is located in Fairbanks North Star Borough, Alaska, just southeast of the City of North Pole. The installation comprises approximately 20,000 acres of land. There is a major north-south transportation route, known as the Richardson Highway, that connects Eielson AFB to the surrounding municipalities. Adjacent to the installation to the immediate east, as well as across the Tanana River to the west, is United States Army land controlled by Fort Wainwright. Included in this U.S. Army installation is the Yukon Weapons Range, bordering Eielson AFB to the northeast.



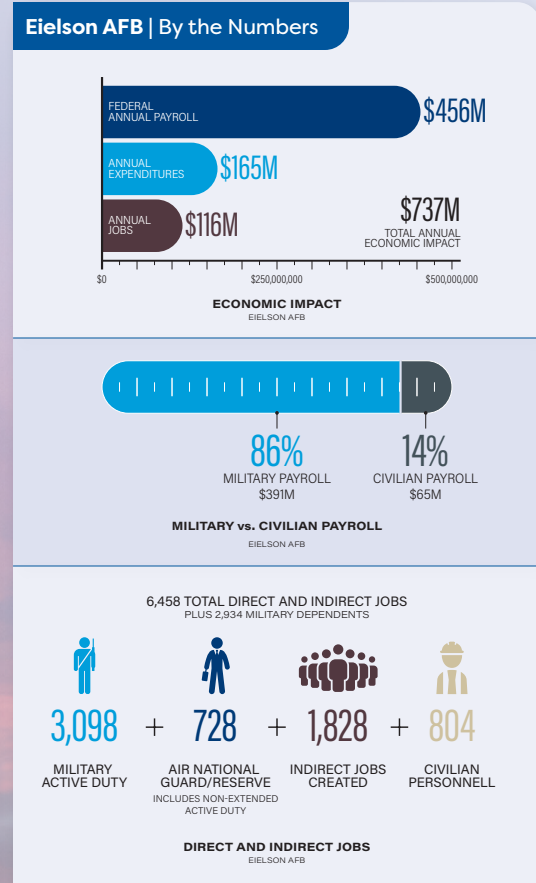
Economic Impact

The economic impact of a military installation is based on annual payroll (jobs and salaries), annual expenditures, and the estimated annual dollar value of the jobs created in the local community based upon the presence and operations of the military installation.

For Fiscal Year 2023, Eielson AFB boasted an annual federal payroll of over \$456 million and annual expenditures of \$165 million, both of which are considered direct economic impacts. Eielson AFB annually generates approximately \$116 million in indirect job creation, with over \$737 million in total annual economic impact. That makes the base's economic footprint enormously important for both the region and state.



The military provides direct, indirect, and induced economic benefits to local communities through jobs and wages. Based on the Fiscal Year 2023 Economic Impact Statement from Eielson AFB, there are 4,630 total personnel within Eielson AFB, including over 3,098 military personnel, 728 personnel in the Air National Guard/Reserve, and approximately 804 civilians. There are also nearly 3,000 military family members that live within the community.



History

The origins of Eielson AFB trace back to the Second World War, initially constructed as an auxiliary airstrip to nearby Ladd Field (now Fort Wainwright) in Fairbanks in the early 1940's. At this time, the airfield was referred to as "Mile 26 Post" and was primarily used as a holding facility to house aircraft enroute to Soviet Russia as part of the Lend-Lease Policy.



26 Mile Post, Circa 1945

Following the war, the base was briefly shuttered but reopened in 1946. It was then that the first unit was assigned to the base: the 57th Fighter Group. A year later, it became an independent base with the Alaskan Air Command. In 1948, it was renamed Eielson AFB after the famed arctic aviator Carl Ben Eielson.



Ben Eielson
Eielson AFB is the namesake of Carl "Ben" Eielson (1897-1929).

Also in 1948, the Eielson AFB Bomb Wing was formed as the first host unit at the installation, later redesignated as the 5010th Wing. This unit would go on to serve as the host for the next three decades, overseeing significant expansion to the installation. The 1981 the 343d Composite Wing became the host unit until 1993, where it was replaced by 354th Fighter Wing. During this time, Cope Thunder (later redesignated Red Flag Alaska) was reassigned to Eielson, the multinational air combat training exercise.

The 354th Fighter Wing is a part of the Pacific Air Forces Command. The Airmen on Eielson are known as the "Icemen" and the Wing's motto is, "Ready to go at fifty below!"



Building 3112
Eielson AFB.
Wikipedia.org

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AIRCRAFT OPERATIONS

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Annual Aircraft Operations

The following table summarizes the annual aircraft flight operations projected for Eielson AFB:

Modeled Annual Aircraft Flight Operations for 2026 AICUZ Noise Contours

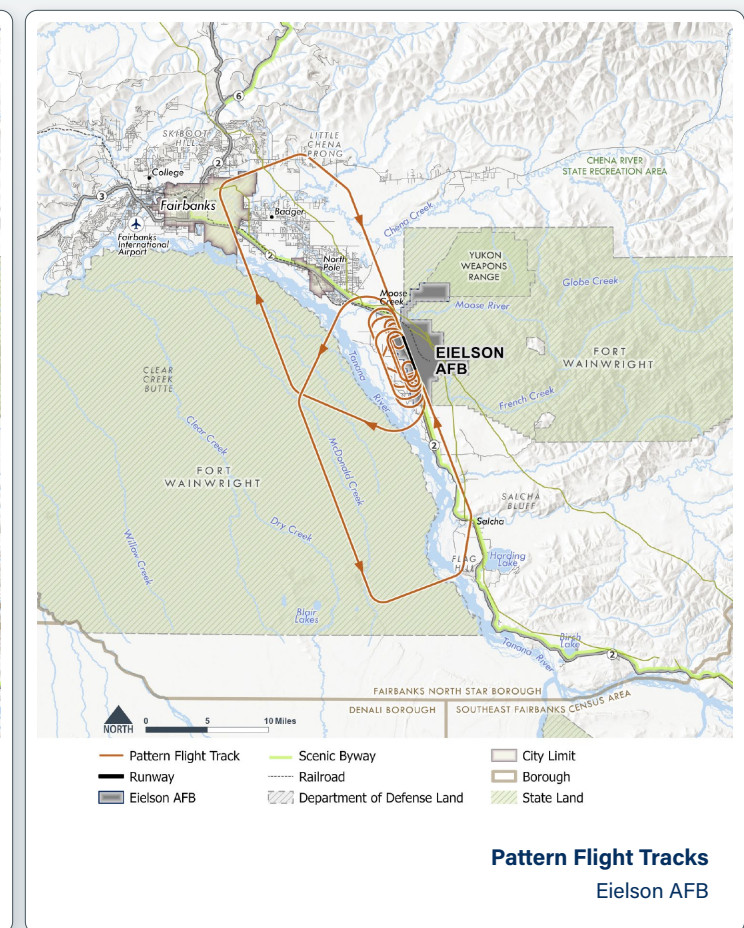
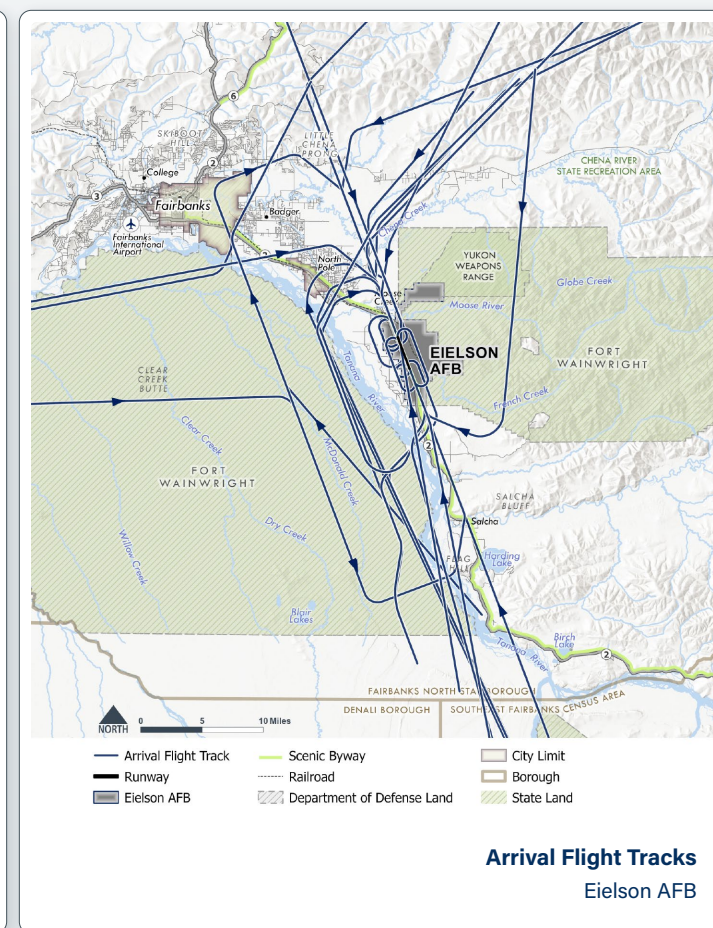
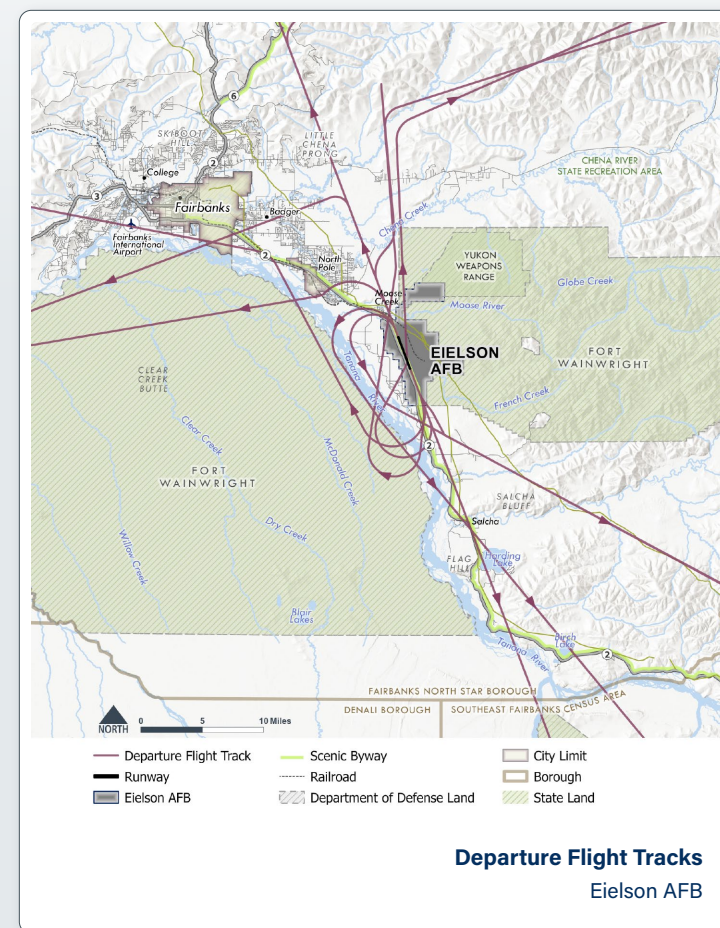
UNIT/AIRCRAFT	DEPARTURES	ARRIVALS	PATTERN ¹	TOTAL
BASED AIRCRAFT				
F-16C	3,129	3,047	3,460	9,636
KC-135R	466	582	2,690	3,738
HH-60	403	403	80	886
F-35A	8,576	6,274	17,151	32,001
TRANSIENT AIRCRAFT				
C-12	18	18	0	36
C-130 H&N&P	51	51	0	102
C-17	295	295	0	590
C-21A	7	7	0	14
F-35A	110	110	0	220
Total	13,055	10,787	23,381	47,223

¹ Each "pattern" consists of two total operations: one arrival and one departure.
Source: Eielson AFB 2025 Airfield Noise Study

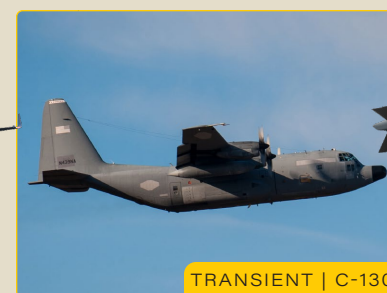
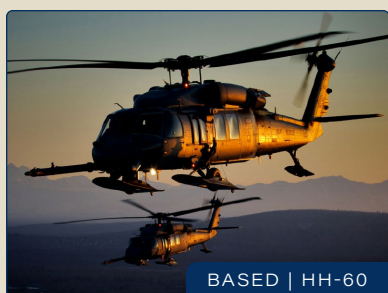
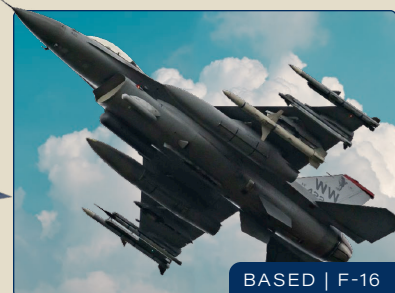
Flight Tracks

The frequency with which aircraft use a runway depends on factors such as the airfield environment (layout, lights, runway length), prevailing wind direction, natural terrain features, wildlife activity, the number of aircraft in the pattern, and runway preference for safety and noise abatement.

Each runway has designated flight tracks that provide for the safety, consistency, and control of an airfield. Flight tracks depict where aircraft fly in relation to an airfield. The figures provided on this poster depict the departure flight tracks, arrival flight tracks, and pattern flight tracks for Eielson AFB.



Based and Transient Aircraft Utilizing Eielson AFB



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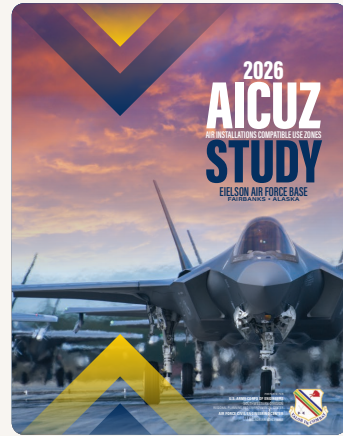


AICUZ PROGRAM OVERVIEW

EIELSON AIR FORCE BASE • ALASKA

AICUZ Program

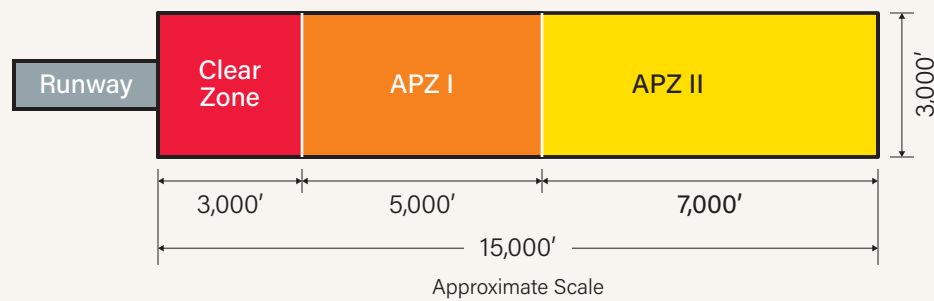
The Department of Defense's (DoD's) Air Installations Compatible Use Zones (AICUZ) Program balances the needs of military air and ground operations with community concerns by focusing on the Air Force's policy of promoting public health, safety, and general welfare in areas surrounding air installations while seeking development that is compatible with the defense flying mission.



Clear Zones and Accident Potential Zones

The DoD provides Clear Zones (CZs) and Accident Potential Zones (APZs) for Class A and Class B Runways as planning tools for local agencies. CZs and APZs define the areas where an aircraft accident is likely to occur, if an accident occurs.

Class "B" Runway



Land Use Categories

Generalized Land Use Categories and Noise/Safety Compatibility

The generalized land use categories are compared to AICUZ compatibility guidelines for the airfield generated noise and associated CZs and APZs.



Generalized Land Use Categories and Noise/Safety Compatibility

GENERALIZED LAND USE CATEGORY ¹	NOISE ZONE (dB DNL)						APZS		
	<65	65-70	70-75	75-80	80-85	85+	CZ	APZ I	APZ II
Residential	Yes	No ²	No ²	No	No	No	No	No	No ³
Commercial	Yes	Yes	Yes ⁴	Yes ⁴	No	No	No	Yes ⁴	Yes ⁴
Industrial	Yes	Yes	Yes	Yes	Yes ⁴	No	No	Yes ⁴	Yes ⁴
Services	Yes	Yes ⁴	Yes ⁴	Yes ⁴	No	No	No	No	Yes ⁴
Recreation	Yes	Yes ⁴	Yes ⁴	No	No	No	No	Yes ⁴	Yes ⁴
Open/Agriculture/ Low Density	Yes	Yes ⁴	Yes ⁴	Yes ⁴	Yes ⁴	Yes ⁴	No	Yes ⁴	Yes ⁴
Transportation/Utilities	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Undeveloped/Vacant	Yes	No	No	No	No	No	No	No	No

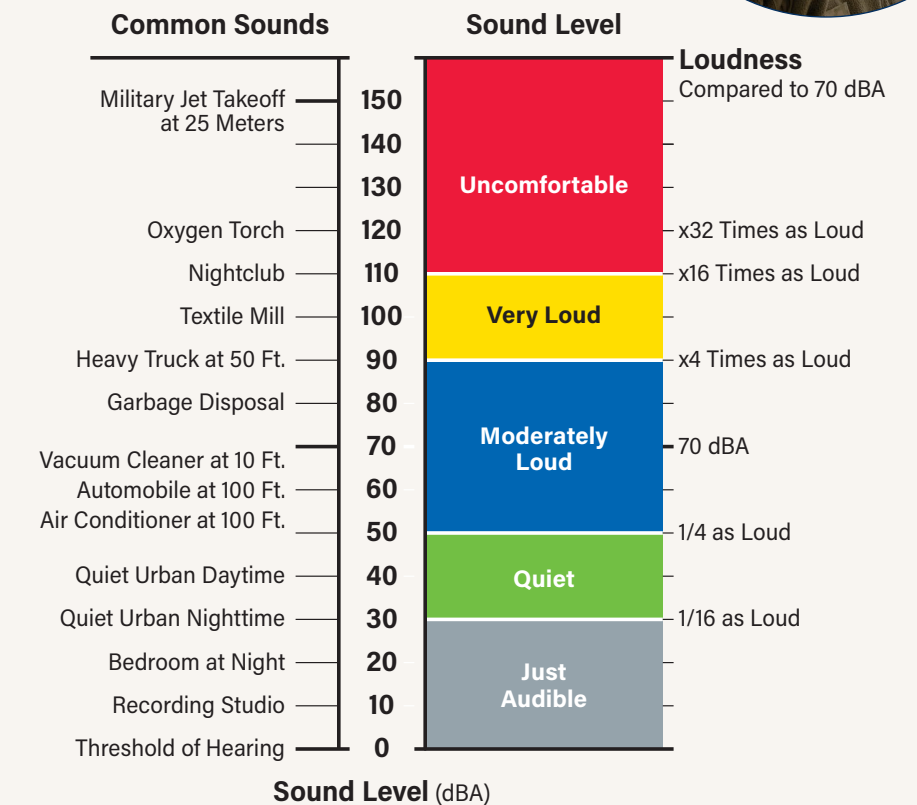
Key: **COMPATIBLE** **COMPATIBLE WITH RESTRICTIONS** **INCOMPATIBLE** **INCOMPATIBLE WITH EXCEPTIONS**

- This generalized table demonstrates the land compatibility guidelines. Refer to Appendix A for use in determining land use compatibility.
- Residential land uses within the greater than 65 dB DNL noise zones are considered incompatible. However, if residential uses are considered essential, noise attenuation measures should be incorporated into the building structures.
- Residential land uses in APZ II are considered incompatible, except when development is limited to less than two dwellings per acre.
- Compatible with restrictions indicates that some mitigation measures are needed for these uses to ensure full compatibility with air operations. See Appendix A, Land Use Compatibility Tables, for more information.

Source: Adapted from AFH 32-7084.

Noise Metrics and Contours

Under the AICUZ Program, the DoD provides noise zones to define aircraft noise exposure, using the Day-Night Average Sound Level (DNL). The DNL metric is based on the number of average daily aircraft operations over a 24-hour period. A 10-decibel (dB) adjustment is included in the DNL metric for aircraft noise occurring between 10:00 p.m. and 7:00 a.m., when people are more sensitive to noise and general ambient noise is limited.



Sound Level (dBA)

Source: U.S. Air Force

See also: <https://www.chem.purdue.edu/chemsafety/Training/PPETrain/dblevels.htm>

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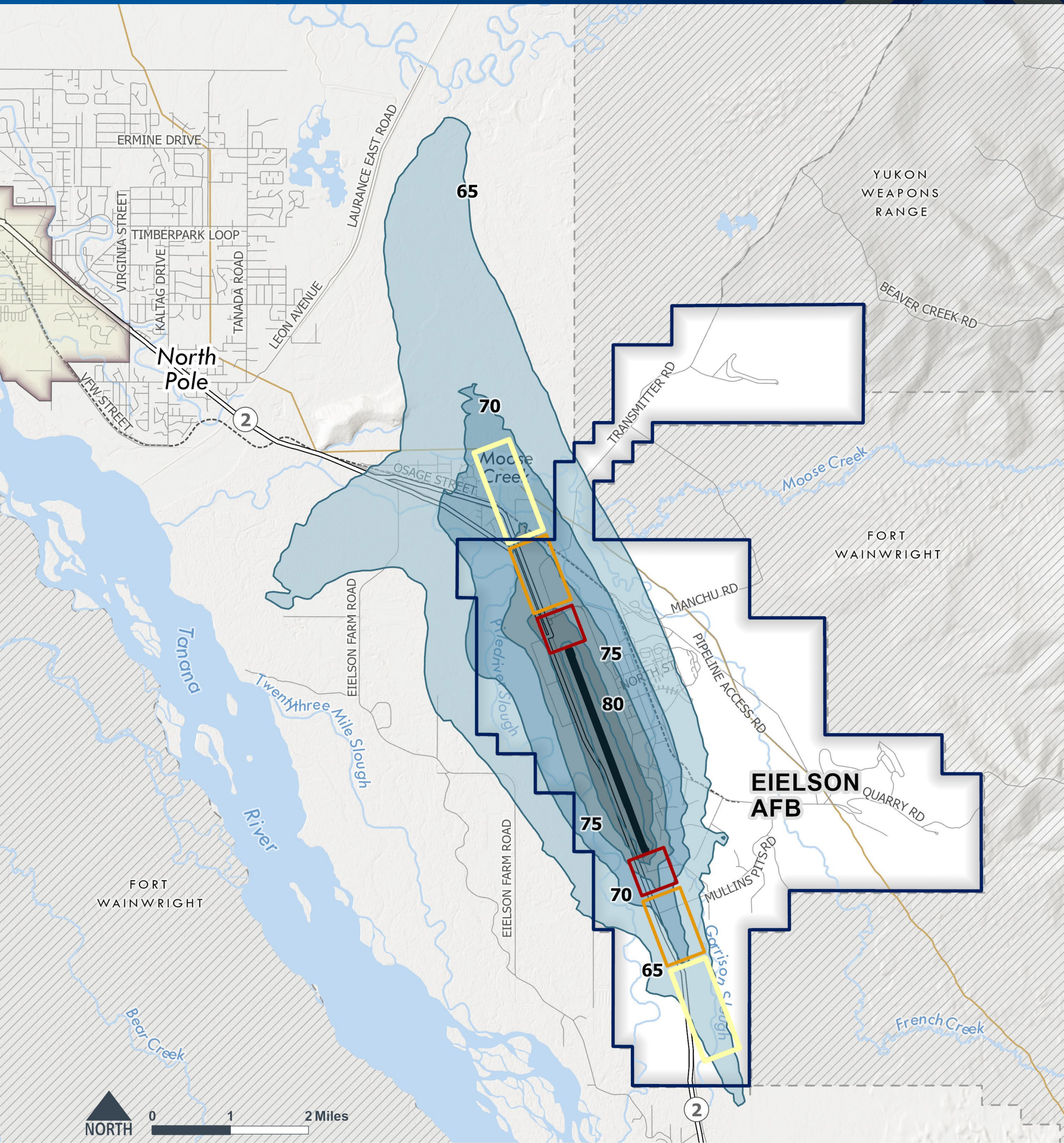
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U.S. AIR FORCE

COMPOSITE AICUZ MAP

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2026 AICUZ Contour (dB)

- 65-69
- 70-74
- 75-79
- 80 and Greater

Accident Potential Zone (APZ) Category

- Clear Zone (CZ)
- Accident Potential Zone I (APZ I)
- Accident Potential Zone II (APZ II)

Runway

- Eielson AFB
- Trans-Alaska Pipeline
- Railroad
- Department of Defense Land
- City Limit

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ROLES AND RESPONSIBILITIES

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NOTE

Implementation of the Eielson AFB AICUZ Study must be a joint effort between Eielson AFB and the surrounding communities, specifically the city of North Pole and the Fairbanks North Star Borough, and in doing so everyone has an important role to play.



Department of Defense

Land development should be compatible with noise zones, Clear Zones (CZs), and Accident Potential Zones (APZs). Preparation and presentation of the Eielson AFB Air Installations Compatible Use Zones (AICUZ) Study is one

method the Department of Defense can play in participating in the local planning process. As the local community updates its land use plans, Eielson AFB stands ready to provide additional input and guidance as needed.



Community

Neighboring residents and installation personnel have a long-established history of working together for the mutual benefit of the Eielson AFB mission and local community.

The land and economic development community can support AICUZ implementation by...

- ✓ Having an awareness about where the noise zones, CZs, and APZs encumber land near Eielson AFB and what the associated compatible land use guidance entails,
- ✓ Consulting with installation representatives on proposed developments within the AICUZ footprint, and
- ✓ Participating in local discussions about compatible land use planning around the installation.

Local citizens can continue to support Eielson AFB AICUZ implementation by...

- ✓ Becoming informed generally about the AICUZ Program;
- ✓ Participating in local forums with Eielson AFB to learn more about its mission and operations; and,
- ✓ Engaging with real estate professionals, planners, and installation representatives about noise and accident potential when purchasing property.

NOTE

Local jurisdictions control development beyond the boundaries of Eielson AFB. The military serves in an advisory capacity only.



Local Government

The residents of the surrounding municipalities have a long history of working with personnel from Eielson AFB.

Local governments play a key role in the AICUZ process through

- 1 Enacting compatible planning, zoning, and development principles that strengthen the community's relationship with the base;
- 2 Through implementing actions that increase the health and safety of the public; and,
- 3 Through protecting the integrity of the installation's flying mission.

Here's how it's done

- ✓ Adopting zoning ordinances compatible with AICUZ recommendations;
- ✓ Working with Eielson AFB on planning and zoning actions;
- ✓ Implementing height and obstruction ordinances where appropriate;
- ✓ Encouraging disclosure of the AICUZ footprint during real estate transactions;
- ✓ Modifying building/residential codes to include noise level reduction measures where appropriate; and,
- ✓ Continuing to support the implementation and key recommendations of the Fair Banks North Star Borough Joint Land Use Study (JLUS).

NOTE

Local governments consult with Eielson AFB on planning and zoning actions that have the potential to affect installation operations. It should be noted that the local municipalities inform Eielson AFB of development proposals located within the Hazards to Aircraft Flight Zone (HAFZ) to ensure that the Air Force has an opportunity to weigh in on land use issues of concern.



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